

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ANJALAI AMMAL MAHALINGAM ENGINNERING COLLEGE

NBA SELF ASSESSMENT REPORT

MAY 2024



PARTA: Institutional Information

1. **Name and Address of the Institution:** ANJALAIAMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI,- 614403 NEEDAMAGALAM Taluk, THIRUVARUR District.
2. **Name and Address of the Affiliating University:** Anna University, Chennai
3. **Year of establishment of the Institution:** 1994
4. **Type of the Institution: Affiliated**
5. **Ownership Status: Trust**
6. **Other Academic Institutions of the Trust/Society/Company etc., if any: NA**
7. **Details of all the programs being offered by the institution under consideration:**

Name of the Program	Program Level applied	Year of Start	Year of AICTE Approval	Initial Intake	Increase in intake, if any	Current Intake	Accreditation Status*	Program for consideration	Program duration
Computer Science and Engineering	UG	1995	1994	60	90 (2000)	90	Not Accredited 06.05.2016 to 08.05.2016	Yes	4 years
Electrical and Electronics Engineering	UG	1995	1994	60		60	Not Accredited 06.05.2016 to 08.05.2016	No	4 years
Electronics and Communication Engineering	UG	1995	1994	60	90 (2002) 120 (2013) 90 (2020)	90	Not Accredited 06.05.2016 to 08.05.2016	Yes	4 years
Mechanical Engineering	UG	1995	1994	60	120 (2013) 90 (2021)	60	Not Accredited 06.05.2016 to 08.05.2016	Yes	4 years
Information Technology	UG	1999	1999	40	60 (2000) 90 (2001)	90	Not Accredited 06.05.2016 to 08.05.2016	Yes	4 years
Chemical Engineering	UG	1996	1994	60		30	Not eligible for accreditation	No	4 years
Civil Engineering	UG	2014	2014	60		30	Not eligible for accreditation	No	4 years
Master of Computer Applications	PG	1999	1999	60		60	Eligible but not applied	No	2years

Table A.7

8. Programs to be considered for Accreditation vide this application:

S.No.	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Computer Science & Engg
2	Under Graduate	Engineering & Technology	Electronics & Communication Engg.
3	Under Graduate	Engineering & Technology	Information Technology
4	Under Graduate	Engineering & Technology	Mechanical Engg.

TableA.8

9. Total number of employees in the institution:

A. Regular Employees(Faculty and Staff):

Items	Sex	2023-2024		2022-2023		2021-2022	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M	44	48	54	60	55	58
	F	38	40	35	38	35	37
Faculty in Maths, Science & Humanities	M	22	22	19	23	19	20
	F	4	6	5	6	5	5
Non-teaching staff	M	64	70	76	80	73	76
	F	22	24	22	24	21	23

TableA.9a

B. Contractual Staff Employees (Faculty and Staff):(Not covered in Table A): **NOT APPLICABLE**

Items		CAY		CAY*m*1		CAY*m*2	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M	-	-	-	-	-	-
	F	-	-	-	-	-	-
Faculty in Maths, Science & Humanities	M	-	-	-	-	-	-
	F	-	-	-	-	-	-
Non-teaching staff	M	0	10	-	-	-	-
	F	-	-	-	-	-	-

TableA.9b

10. Total number of Engineering Students:

Item	2023-2024	2022-2023	2021-2022
Total no.of boys	926	1045	1042
Total no.of girls	534	451	451
Total no.of students	1460	1496	1493

MCA

Item	2023-2024	2022-2023	2021-2022
Total no.of boys	40	40	34
Total no.of girls	75	79	75
Total no.of students	115	119	109

TableA.10

11. Vision of the Institution:

To become a centre of excellence by imparting high quality technical education and produce competent engineers with ethical, environmental and social values.

12. Mission of the Institution:

M1- Facilitating high quality technical education through adequate infrastructure and eminent faculty members.
M2 - Providing Technical education to rural youth.
M3 - Promoting research and development activities.
M4 - Developing industry – institution interaction and inculcating a spirit of entrepreneurship through sustained efforts.
M5 - Creating global environment awareness among the students.

13. Contact Information of the Head of the Institution and NBA coordinator, if designated:

Head of the Institution

Name: Dr.S.N.RAMASWAMY
Designation: Principal
Mobile No: 9791451644
Email id: principal@aamec.edu.in

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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CRITERION 1

VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

CRITERION 1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60

1.1. State the Vision and Mission of the Department and Institute (5)

Vision and Mission of the College

Vision: To become a centre of excellence by imparting high quality technical education, and produce competent engineers with ethical, environmental and social values.

Mission:

M1: Facilitating high quality technical education through adequate infrastructure and eminent faculty members.

M2: Providing technical education to rural youth.

M3: Promoting research and development activities.

M4: Developing industry – Institution interaction and inculcating a spirit of entrepreneurship through sustained efforts.

M5: Creating global environmental awareness among the students.

Vision and Mission of the Department is derived from the Vision and Mission of the College

Vision and Mission of the Department

Vision:

To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission:

M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects.

M2: To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.

M3: To train students to enhance their problem-solving and programming skills**.**

M4: To expose students to emerging technologies and tools in the field of computing.

Consistency of vision of the department with that of college	
To become a centre of excellence by imparting high quality technical education.	To become a centre of excellence in the field of computer science and engineering through high quality education.
To produce competent engineers with ethical, environmental and social values.	To produce intellectual computer engineers for industry and research.

Consistency of Mission of the College with that of Department	
Facilitating high quality technical education through adequate infrastructure and eminent faculty members.	To provide fundamental knowledge in science, mathematics, management and environmental subjects.
Creating global environmental awareness among the students.	To train students to enhance their problem-solving and programming skills**.**
Providing technical education to rural youth.	To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.
Promoting research and development activities.	

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research**.**

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	To expose students to emerging technologies and tools in the field of computing.
Developing industry – Institution interaction and inculcating a spirit of entrepreneurship through sustained efforts.	To expose students to emerging technologies and tools in the field of computing.

1.2. State the Program Educational Objectives (PEOs) (5)

PEO 1: To apply the knowledge gained in mathematics, basic sciences and core concepts of computer science and engineering in real-time applications.

PEO 2: To enable graduates to pursue higher education and research, or have a successful career in industries associated with computer science and engineering or as entrepreneurs.

PEO 3: To ensure the graduates will have the ability and attitude to adapt to emerging technological Changes.

1.3. Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (10)

The internal stakeholders of the programme are	The external stakeholders of the programme are
• Management • Governing council members • Faculty Members • Students • Support staff	• AICTE • DOTE • Affiliating University • Alumni • Parents • Employers • Industry and Professional bodies like CSI, ISTE etc.,
The Vision, Mission and PEOs are widely displayed at the following places:	
• College website (www.aamec.edu.in) • HOD ‘s Cabin • Faculty room • Classrooms • Department Library	• Attendance and Assessment record • Course Plan and Lesson Plan • Laboratories and Lab Manual • Student Handbook • Prospectus

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COLLEGE WEBSITE (https://aamec.edu.in/index.php/departments/computer-science-and-engineering)



Computer Science and Engineering

Vision & Mission

Vision

To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission

- M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects.
- M2: To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.
- M3: To train students to enhance their problem-solving and programming skills.
- M4: To expose students to emerging technologies and tools in the field of computing.

PEOs

	Programme Educational Objectives (PEOs)
PEO1.	To apply the knowledge gained in mathematics, basic sciences and core concept of computer science and engineering in real time applications.
PEO2.	To enable graduates to pursue higher education and research, or have a successful career in industries associated with computer science and engineering or as entrepreneurs.
PEO3.	To ensure the graduates will have the ability and attitude to adapt to emerging technological changes.

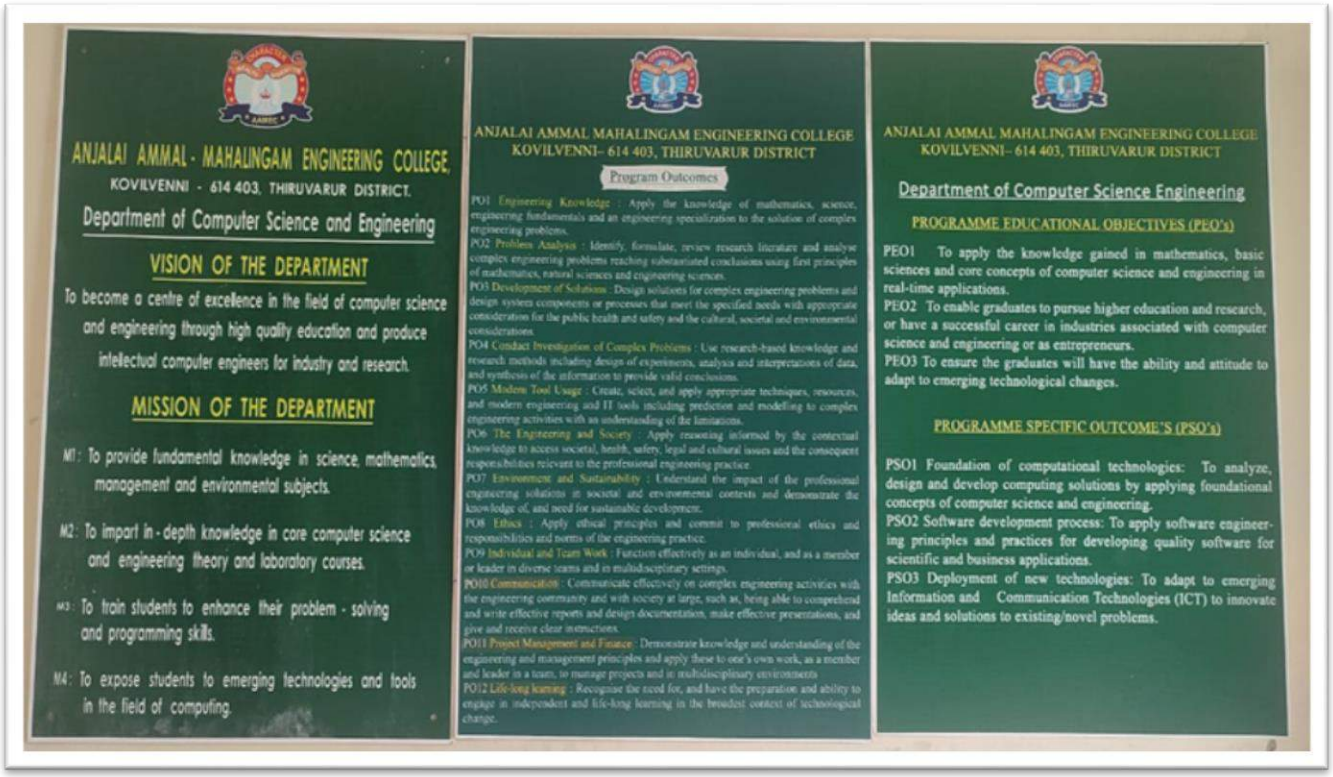
Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

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HOD's CABIN



DISPLAY IN CLASS ROOM AND FACULTY ROOM



Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

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The process to ensure awareness among internal and external stakeholders:

Internal stakeholders

During the process of establishing vision and mission statements, approval obtained from the Governing council consists of the management, principal and experts. After completing the process for establishing vision and mission of the department, the vision, mission and PEO statements are conveyed to faculty members by the HoD. These statements are displayed in prominent places in the department such as notice boards, HoD's cabin, class room, lesson plan, lab manual, Attendance and Assessment record which enable the faculty members and students to become well-versed on these statements.

In addition to the above, every semester, first class in each subject, faculty member reinforce these statements to the students. In class committee meeting and during first counseling in each semester these statements are explained to the students by the concerned faculty members. Every year student handbook is issued to the students and the handbook contains vision and mission statements.

External stakeholders

College website contains vision, mission and PEO statements and URL of college website is to be provided in the approval process of the college to AICTE, affiliation process of the college to the Anna University and during information booklet details submission to DOTE.

Placement and Training department disseminate these vision and mission statements to employers while they are approached for placement and training activity and also during the on- campus placement process.

Parents will become aware of these statements while they come to college in various occasions and also during parents meeting.

Alumni become aware of these statements during visit to the department in different occasions and alumni meetings conducted by the college.

Registration process with professional bodies like CSI, ISTE contains URL of the college website which contains these statements.

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (25)

1.4.1 Mention the process for defining Vision and Mission of the department

Process of Establishing Vision and Mission of the Department:

- The Vision and Mission of the Institution are the basis for the formation of the Vision and Mission of the Department. The Department Vision and Mission are created by taking into account the factors such as critical elements of teaching-learning system, profile of the institution, and the future scope of the program.
- Suggestions are collected through discussions with various stakeholders such as alumni, students, industrial experts, Faculty members and parents, during alumni meetings, recruitment drives, industry institute interactions, parents-teachers meetings, department meetings, etc.
- The collected suggestions are reviewed and analyzed by all Faculty members through brainstorming Sessions, and the Vision and Mission of the Department are formulated and finalized.

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- The vision and mission statements framed are reviewed and analyzed by the Department Advisory Committee and approved by the head of the institution.
- The Vision and Mission of the Department are published, disseminated.
- Further it is reviewed and revised periodically for changes, if any.

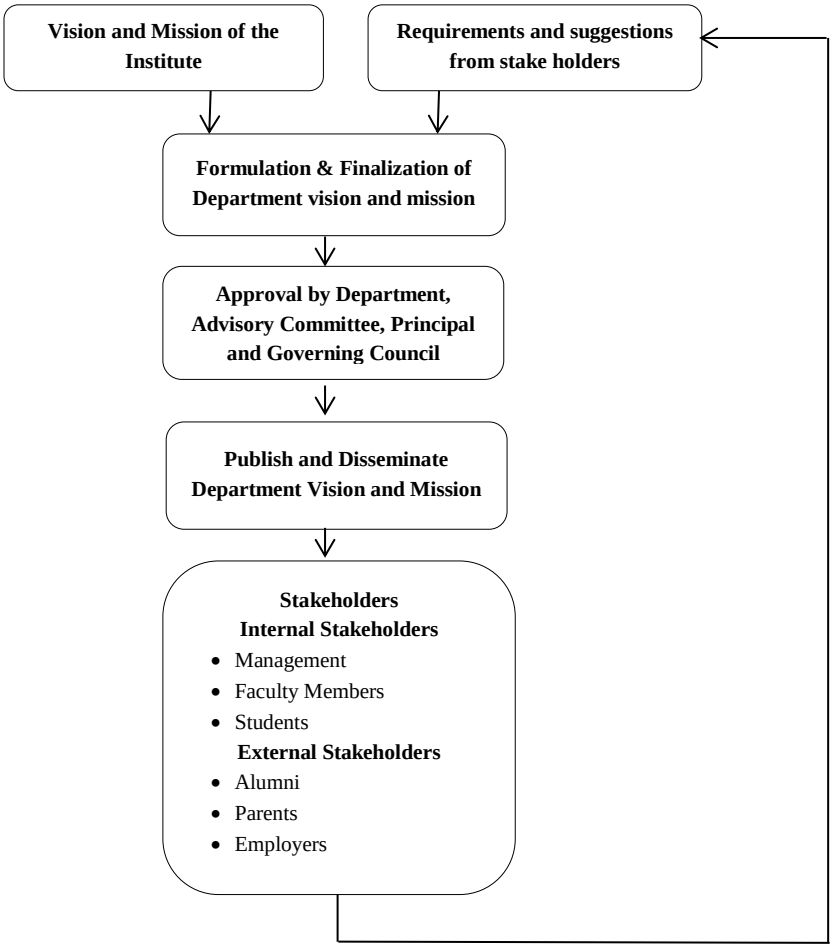


Fig.1.4.1 Process for Establishing Vision and Mission of the Department

1.4.2 State the process for establishing the PEOs

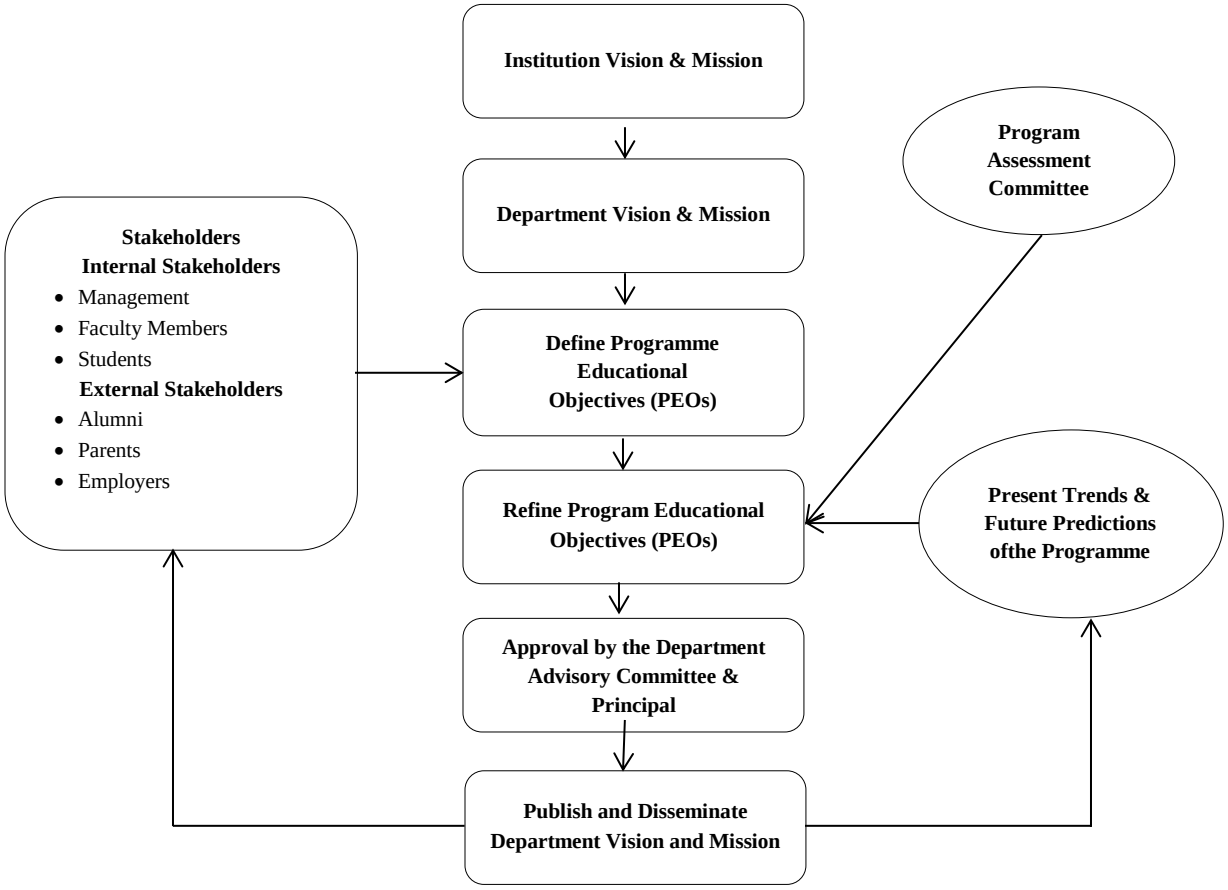
PEO statements are framed satisfying the requirements of the stakeholders. The process of establishing PEOs is as follows:

- Suggestions and Feedback pertaining to professional and career accomplishments of alumni and attainment of program outcomes are obtained from various stakeholders.
- PEOs are defined by all Faculty members and Department Advisory Board through brainstorming sessions, based on suggestions and feedbacks obtained.
- Based on the views collected from brainstorming sessions, PEOs are analyzed, framed and placed for approval by the Department Advisory Board and Principal.
- Consistency of PEOs with the vision and mission statements of the Department is checked and verified.

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- Approved PEOs are established and disseminated to various stake holders, reviewed and revised for changes, if any.



1.4.2 State the process for establishing the PEOs

1.5 Establish consistency of PEOs with Mission of the Department (15)

PEO Statements	M1	M2	M3	M4
PEO1: To apply the knowledge gained in mathematics,basic sciences and core competencies of computer science in real-time applications	3	3	2	1
PEO2: To enable graduates to pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering or as entrepreneurs	1	3	3	1
PEO3: To ensure the graduates will have the ability andattitude to adapt to emerging technological Changes.	1	1	2	3

Table.1.5.1 Mission of the Department-PEOs matrix

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.
Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

PEO		Mission	Consistency
PEO1	To apply the knowledge gained in mathematics, basic sciences and core competencies of computer science in real-time applications	M1	It concerns with learning and gaining knowledge in basic sciences, mathematics, management and environmental courses, it substantially maps with PEO1, because PEO1 focus on applying these facts in real-world solutions.
		M2	It deals with in-depth knowledge in core computer subjects and so it substantially maps with PEO1.
		M3	It concerns on problem solving and programming skills which is part of the all these courses and so it moderately maps with PEO1.
PEO2	To enable graduates to pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering or as entrepreneurs.	M2	Knowledge in professional core subjects is very much essential in higher education, research and entrepreneurship and hence substantially maps with PEO2.
		M3	Problem solving and programming skills are highly required in their profession as software engineers and also in research. Hence it substantially maps with PEO2.
PEO3	To ensure the graduates will have the ability and attitude to adapt to emerging technological Changes.	M3	Problem solving approach and strong logical thinking towards programming skills will help the students to mould themselves according to emerging changes in industry and research and so moderately maps with PEO3.
		M3	High knowledge in various types of software tools and recent trends in computer science and engineering will enable the students to confidently face the technological changes. Hence it substantially maps with PEO3.

Table.1.5.2 Justification for Mission of the Department-PEOs matrix

Justification:

PEO1:M1 The Fundamental concepts of basic science and mathematics are clearly taught by the faculty members with the application of these concepts in real-time application particularly in Computer science and Engineering field. This enables the graduates to apply this knowledge in their profession.

PEO1:M2-Experienced Faculty members and well-equipped laboratories as well as teaching-Learning process with proper blend of both theory and Practical courses empower the graduates to apply core competency in CSE in their career.

PEO1:M2 Problem-solving skills are reinforced with tutorial classes and assignments in problem-oriented courses. Programming skills are imbibed through programming laboratory courses in computer lab, Hackathon, Learnathon, coding contest etc. This makes the graduates to use these skills and touch greater heights in software career, like project leader, project manager, also entrepreneur etc.

PEO1:M4 Environmental aspects are inculcated in the minds of students in all the courses whenever it is feasible and so the students will take the decision in their profession with the consideration of environment as one of the objectives.

PEO2:M1 Fundamental knowledge gained in basic science and mathematics will make the graduates to apply in real-time application.

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PEO2:M2 Teaching-Learning process in core concepts in computer science and engineering are well-planned with course plan of core courses handled by the faculty members in CSE with content beyond syllabus, guest lecture in advanced topics etc., this will enable graduates to pursue their higher education in both India and abroad as well as research. The graduates will outperform in their career in software industries as well as entrepreneurship also.

PEO2:M3 Faculty members take efforts to improve problem-solving skills and programming skills through tutorials, mini projects, and additional programming problems in lab courses, coding competition, internship, and project. This enable the graduates to perform better in higher education, contribute for research and excel in their career as employee as well as entrepreneurs.

PEO2:M4 Emerging trends on cutting edge technologies are exposed during the course of study through guest Lecture, internship, workshop, seminar, symposium and project work, paper presentation, value-added course through NPTEL etc., this enable graduates to pursue higher education and research.

PEO3:M1 Fundamental knowledge in science and mathematics will help the students to comprehend the changes in technologies.

PEO3:M2 Knowledge in core computer theory and laboratory courses gained through vigorous training by the faculty members will make the students to learn new technologies.

PEO3:M3 Problem-solving and programming skills are imparted through practical implementation and this will enable the graduates use the experience gained in accommodating themselves in new environment.

PEO3:M4 The Department focus on developing the ability and attitude to learn new technologies and tools through the development for in-house activities, project work, and dedicated lab for free and open source software etc. This enables the graduates to adapt to changes in technology and tools in software field.

Approaches for implementation of Mission and PEOs:

- Basic sciences, Mathematics, Management, environment courses, Professional Core computer science and Engineering Courses in Curriculum
- Courses including professional Ethics & Human Values and environmental courses
- Open Electives including courses on entrepreneurship
- Laboratory courses
- Mobile Application Development Labs
- Project Works
- Value Added Courses
- Expert Lectures
- Paper Presentation
- Technical Symposium
- State of the art laboratories with application oriented practical exercises
- Participation in contests organized by other institutions
- Internships and Industrial Trainings
- Communication skills development
- NPTEL courses
- IIT Spoken tutorials
- Learnathan
- Science Exhibition
- Conference and Journal publication

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CRITERION 2

PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES

CRITERION 2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120

2. Program Curriculum and Teaching - Learning Processes (120)

2.1 Program Curriculum (20)

2.1.1 State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure I. Also mention the identified curricular gaps, if any (10)

ANJALAI AMMAL-MAHALINGAM ENGINEERING COLLEGE is affiliated to Anna University, Chennai. The B.E Computer Science and Engineering Program curriculum is framed and revised by the Anna Universityonce in four years.

ANNA UNIVERSITY CURRICULUM

Choice Based Credit System (Regulation 2017)

SEMESTER I

Sl. No	Course Code	CourseTitle	Cat.	CP	L	T	P	C
		Theory						
1.	HS8151	Communicative English	HS	4	4	0	0	4
2.	MA8151	Engineering Mathematics - I	BS	4	4	0	0	4
3.	PH8151	Engineering Physics	BS	3	3	0	0	3
4.	CY8151	Engineering Chemistry	BS	3	3	0	0	3
5.	GE8151	Problem Solving and Python Programming	ES	3	3	0	0	3
6.	GE8152	Engineering Graphics	ES	6	2	0	4	4
Practical								
7.	GE8161	Problem Solving and Python ProgrammingLaboratory	ES	4	0	0	4	2
8.	BS8161	Physics and Chemistry Laboratory	BS	4	0	0	4	2
Total				31	19	0	12	25

SEMESTER II

Sl. No	Course Code	CourseTitle	Cat.	CP	L	T	P	C
Theory								
1.	HS8251	Technical English	HS	4	4	0	0	4
2.	MA8251	Engineering Mathematics-II	BS	4	4	0	0	4
3.	PH8251	Physics for Information Science	BS	3	3	0	0	3
4.	BE8253	Basic Electrical, Electronics and MeasurementEngineering	BS	3	3	0	0	3
5.	GE8291	Environmental science and Engineering	ES	3	3	0	0	3
6.	CS8251	Programming in C	PC	3	3	0	0	3
Practical								
7.	GE8261	Engineering Practices Laboratory	ES	4	0	0	4	2
8.	BS8261	Basic Electrical, Electronics and	ES	4	0	0	4	2

		Instrumentation Engineering Laboratory						
Total				28	20	0	8	24

SEMESTER III

Sl. No.	Course Code	CourseTitle	Cat.	CP	L	T	P	C
Theory								
1.	MA8351	Discrete Mathematics	BS	4	4	0	0	4
2.	CS8351	Digital Principles and System Design	ES	4	4	0	0	4
3.	CS8391	Data Structures	PC	3	3	0	0	3
4.	CS8392	Object Oriented Programming	PC	3	3	0	0	3
5.	EC8395	Communication Engineering	ES	3	3	0	0	3
Practical								
6	CS8381	Data Structures Laboratory	PC	4	0	0	4	2
7	CS8383	Object Oriented Programming Laboratory	PC	4	0	0	4	2
8	CS8382	Digital Systems Laboratory	ES	4	0	0	4	2
9	HS8381	Interpersonal ,Skills / Listening & Speaking	EEC	2	0	0	2	1
Total				17	0	14	24	31

SEMESTER IV

Sl. No.	Course Code	CourseTitle	Cat.	CP	L	T	P	C
Theory								
1.	MA8402	Probability and Queueing Theory	BS	4	0	0	4	4
2.	CS8491	Computer Architecture	PC	3	0	0	3	3
3.	CS8492	Database Management Systems	PC	3	0	0	3	3
4.	CS8451	Design and Analysis of Algorithms	PC	3	0	0	3	3
5.	CS8493	Operating Systems	ES	3	0	0	3	3
6.	CS8494	Software Engineering	PC	3	0	0	3	3
Practical								
7.	CS8481	Database Management Systems Laboratory	PC	4	0	0	4	2
8.	CS8461	Operating Systems Laboratory	PC	4	0	0	4	2
9.	HS8461	Advanced Reading and Writing	EEC	2	0	0	2	1
Total				29	19	0	10	24

SEMESTER V

Sl. No.	Course Code	CourseTitle	Cat	CP	L	T	P	C
Theory								
1.	MA8551	Algebra and Number Theory	BS	4	4	0	0	4
2.	CS8591	Computer Networks	PC	3	3	0	0	3
3.	EC8691	Microprocessors and Microcontrollers	PC	3	3	0	0	3
4.	CS8501	Theory of Computation	PC	3	3	0	0	3

5.	CS8592	Object Oriented Analysis and Design	PC	3	3	0	0	3
		Open Elective I	OE	3	3	0	0	3
Practical								
6.	EC8681	Microprocessors and Microcontrollers Laboratory	PC	4	0	0	4	2
7.	CS8582	Object Oriented Analysis and Design Laboratory	PC	4	0	0	4	2
8.	CS8581	Networks Laboratory	PC	4	0	0	4	2
Total				**31**	**19**	**0**	**12**	**25**

SEMESTER VI

Sl. No.	Course Code	Course Title	Cat.	CP	L	T	P	C
Theory								
1.	CS8651	Internet Programming	PC	3	3	0	0	3
2.	CS8691	Artificial Intelligence	PC	3	3	0	0	3
3.	CS8601	Mobile Computing	PC	3	3	2	0	3
4.	CS8602	Compiler Design	PC	5	3	0	2	4
5.	CS8603	Distributed Systems	PC	3	3	0	0	3
6.		Professional Elective – I	PE	3	3	0	0	3
Practical								
7.	CS8661	Internet Programming Laboratory	PC	4	0	0	4	2
8.	CS8662	Mobile Application Development Laboratory	PC	4	0	0	4	2
9.	CS8611	Mini Project	EEC	2	0	0	2	1
10	HS8581	Professional Communication	EEC	2	0	0	2	1
Total				32	18	2	14	25

SEMESTER VII

Sl. No.	Course Code	CourseTitle	Cat.	CP	L	T	P	C
Theory								
1.	MG8591	Principles of Management	HS	3	3	0	0	3
2.	CS8792	Cryptography and Network Security	PC	3	3	0	0	3
3.	CS8791	Cloud Computing	PC	3	3	0	0	3
4.		Open Elective - II	OE	3	3	0	0	3
5.		Professional Elective – II	PE	3	3	0	0	3
6.		Professional Elective – III	PE	3	3	0	0	3
Practical								
7.	CS8711	Cloud Computing Laboratory	PC	4	0	0	4	2
8.	IT8761	Security Laboratory	PC	4	0	0	4	2
Total				26	18	0	10	22

SEMESTER VIII

Sl. No.	Course Code	CourseTitle	Cat.	CP	L	T	P	C
Theory								
1.		Professional Elective– IV	PE	3	3	0	0	3
2.		Professional Elective– V	PE	3	3	0	0	3
Practical								
3.	ME8811	Project Work	EEC	20	0	0	20	10
Total				26	6	0	20	16

Total Number of Credits to be Earned for Award of the Degree = 185

Program Curriculum

Humanities and Social Science (HS) Courses

The stream includes courses like Communicative English, Technical English, Environmental Science andEngineering, and Principles of Management.

Basic Sciences (BS) Courses

The stream includes courses like Engineering Mathematics, Engineering Physics, and Engineering Chemistry.

Engineering Science (ES) Courses

The stream includes courses like Python Programming, Engineering graphics Basic electrical, electronics and measurement engineering, digital principles and system design. These courses provide the fundamental knowledge on all engineering disciplines.

Professional Core (PC)

The stream includes courses like data structures; object oriented programming, design and analysis of Algorithms, computer organization, software engineering, operating systems, database management systems, computer networks, compiler design, object oriented analysis and design, Theory of Computation etc.

Professional Elective (PE)

The stream includes courses like Data Warehousing and Data Mining, Big Data Analytics, Multi-core Architectures and Programming, Information Security, Information Retrieval Techniques. The Electives provide an avenue for specialization in an area of the student's choice.

Open Electives (OE)

The stream includes courses like Soft Computing, Supply Chain Management. The Open Elective (OE) courses include the interdisciplinary courses, which a student can choose from the list specified in the curriculum.

Employability Enhancement Courses (EEC)

The stream includes courses like Interpersonal Skills / Listening & Speaking, Advanced Reading and Writing, Mini Project, Professional Communication, Project Work. Mini Project and Project work are included in Pre-final year and final year to provide opportunity for students to develop understanding of the inter relationship between courses, develop and demonstrate higher order skills, and to apply the gained knowledge.

Humanities and Social Sciences (HS)

Sl. No.	Course Code	CourseTitle	Cat.	CP	L	T	P	C
1.	HS8151	Communicative English	HS	4	4	0	0	4
2.	HS8251	Technical English	HS	4	4	0	0	4
3.	GE8291	Environmental Science and Engineering	HS	3	3	0	0	3
4.	MG8591	Principles of Management	HS	3	3	0	0	3

Basic Science (BS)

Sl. No.	Course Code	CourseTitle	Cat.	CP	L	T	P	C
1.	MA8151	Engineering Mathematics - I	BS	4	4	0	0	4
2.	PH8151	Engineering Physics	BS	3	3	0	0	3
3.	CY8151	Engineering Chemistry	BS	3	3	0	0	3
4.	BS8161	Physics and Chemistry Laboratory	BS	4	0	0	4	2
5.	MA8251	Engineering Mathematics II	BS	4	4	0	0	4
6.	PH8252	Physics for Information Science	BS	3	3	0	0	3
7.	MA8351	Discrete Mathematics	BS	4	4	0	0	4
8.	MA8402	Probability and Queuing Theory	BS	4	4	0	0	4
9.	MA8551	Algebra and Number Theory	BS	4	4	0	0	4

Engineering Sciences (ES)

Sl. No.	Course Code	CourseTitle	Cat	CP	L	T	P	C
1.	GE8151	Problem Solving and Python Programming	ES	3	3	0	0	3
2.	GE8152	Engineering Graphics	ES	6	2	0	4	4
3.	GE8161	Problem Solving and Python Programming Lab	ES	4	0	0	4	2
4.	BE8253	Basic Electrical, Electronics & MeasurementEngineering	ES	3	3	0	0	3
5.	GE8292	Engineering practices laboratory	ES	4	0	0	4	2
6.	GE8261	Digital principles and System Design	ES	4	4	0	0	4
7.	BE8261	Communication Engineering	ES	3	3	0	0	3
8.	CE8394	Digital Systems Laboratory	ES	4	0	0	4	2

Professional Core (PC)

Sl. No.	Course Code	CourseTitle	Cat	CP	L	T	P	C
1.	CS8251	Programming in C	PC	3	3	0	0	3
2.	CS8261	C Programming Laboratory	PC	4	0	0	4	2
3.	CS8391	Data Structures	PC	3	3	0	0	3
4.	CS8392	Object Oriented Programming	PC	3	3	0	0	3
5.	CS8381	Data Structures Laboratory	PC	4	0	0	4	2
6.	CS8383	Object Oriented Programming Laboratory	PC	4	0	0	4	2
7.	CS8491	Computer Architecture	PC	3	3	0	0	3

8.	CS8492	Database Management Systems	PC	3	3	0	0	3
9.	CS8451	Design and Analysis of Algorithms	PC	3	3	0	0	3
10.	CS8493	Operating Systems	PC	3	3	0	0	3
11.	CS8494	Software Engineering	PC	3	3	0	0	3
12.	CS8481	Database Management Systems Laboratory	PC	4	0	0	4	2
13.	CS8461	Operating Systems Laboratory	PC	4	0	0	4	2
14.	CS8591	Computer Networks	PC	3	3	0	0	3
15.	EC8691	Microprocessors and Microcontrollers	PC	3	3	0	0	3
16.	CS8501	Theory of Computation	PC	3	3	0	0	3
17.	CS8592	Object Oriented Analysis and Design	PC	4	0	0	4	2
18.	EC8681	Microprocessors and Microcontrollers Laboratory	PC	4	0	0	4	2
19.	CS8582	Object Oriented Analysis and Design Laboratory	PC	4	0	0	4	2
20.	CS8581	Networks Laboratory	PC	4	0	0	4	2
21.	CS8651	Internet Programming	PC	3	3	0	0	3
22.	CS8691	Artificial Intelligence	PC	3	3	0	0	3
23.	CS8601	Mobile Computing	PC	3	3	0	0	3
24.	CS8602	Compiler Design	PC	5	3	0	2	4
25.	CS8603	Distributed Systems	PC	3	3	0	0	3
26.	CS8661	Internet Programming Laboratory	PC	4	0	0	4	2
27.	CS8662	Mobile Application Development Laboratory	PC	4	0	0	4	2
28.	CS8792	Cryptography and Network Security	PC	3	3	0	0	3
29.	CS8791	Cloud Computing	PC	3	3	0	0	3
30.	CS8711	Cloud Computing Laboratory	PC	4	0	0	4	2
31.	IT8761	Security Laboratory	PC	4	0	0	4	2

Professional Electives for B.E. Computer Science and Engineering

Semester VI, Elective I

Sl.No.	Course Code	Course Title	Cat.	CP	L	T	P	C
1.	CS8075	Data Warehousing and Data Mining	PE	3	3	0	0	3
2.	IT8076	Software Testing	PE	3	3	0	0	3
3.	IT8072	Embedded Systems	PE	3	3	0	0	3
4.	CS8072	Agile Methodologies	PE	3	3	0	0	3
5.	CS8077	Graph Theory and Applications	PE	3	3	0	0	3
6.	IT8071	Digital Signal Processing	PE	3	3	0	0	3
7.	GE8075	Intellectual Property Rights	PE	3	3	0	0	3

Semester VII, Elective II

Sl.No.	Course Code	Course Title	Cat	CP	L	T	P	C
1.	CS8091	Big Data Analytics	PE	3	3	0	0	3
2.	CS8082	Machine Learning Techniques	PE	3	3	0	0	3

3.	CS8092	Computer Graphics and Multimedia	PE	3	3	0	0	3
4.	IT8075	Software Project Management	PE	3	3	0	0	3
5.	CS8081	Internet of Things	PE	3	3	0	0	3
6.	IT8074	Service Oriented Architecture	PE	3	3	0	0	3
7.	GE8077	Total Quality Management	PE	3	3	0	0	3

Semester VII, Elective III

Sl. No.	Course Code	Course Title	Cat	CP	L	T	P	C
1.	CS8083	Multi-core Architectures and Programming	PE	3	3	0	0	3
2.	CS8079	Human Computer Interaction	PE	3	3	0	0	3
3.	CS8073	C# and .Net Programming	PE	3	3	0	0	3
4.	CS8088	Wireless Adhoc and Sensor Networks	PE	3	3	0	0	3
5.	CS8071	Advanced Topics on Databases	PE	3	3	0	0	3
6.	GE8072	Foundation Skills in Integrated Product Development	PE	3	3	0	0	3
7.	GE8074	Human Rights	PE	3	3	0	0	3
8.	GE8071	Disaster Management	PE	3	3	0	0	3

Semester VIII, Elective IV

Sl. No.	Course Code	Course Title	Cat.	CP	L	T	P	C
1.	EC8093	Digital Image Processing	PE	3	3	0	0	3
2.	CS8085	Social Network Analysis	PE	3	3	0	0	3
3.	IT8073	Information Security	PE	3	3	0	0	3
4.	CS8087	Software Defined Networks	PE	3	3	0	0	3
5.	CS8074	Cyber Forensics	PE	3	3	0	0	3
6.	CS8086	Soft Computing	PE	3	3	0	0	3
7.	GE8076	Professional Ethics in Engineering	PE	3	3	0	0	3

Semester VIII, Elective V

Sl. No.	Course Code	Course Title	Cat.	CP	L	T	P	C
1.	CS8080	Information Retrieval Techniques	PE	3	3	0	0	3
2.	CS8078	Green Computing	PE	3	3	0	0	3
3.	CS8076	GPU Architecture and Programming	PE	3	3	0	0	3
4.	CS8084	Natural Language Processing	PE	3	3	0	0	3
5.	CS8001	Parallel Algorithms	PE	3	3	0	0	3
6.	IT8077	Speech Processing	PE	3	3	0	0	3
7.	GE8073	Fundamentals of Nanoscience	PE	3	3	0	0	3

Open Elective – I

Sl No.	Course Code	Course Title	Cat.	CP	L	T	P	C
1.	OCE551	Air Pollution and Control Engineering	OE	3	3	0	0	3
2.	OMD551	Basic of Biomedical Instrumentation	OE	3	3	0	0	3
3.	OBT552	Basics of Bioinformatics	OE	3	3	0	0	3
4.	OBM551	Bio Chemistry	OE	3	3	0	0	3
5.	OTL552	Digital Audio Engineering	OE	3	3	0	0	3
6.	OME551	Energy Conservation and Management	OE	3	3	0	0	3
7.	OBT553	Fundamentals of Nutrition	OE	3	3	0	0	3
8.	OCE552	Geographic Information System	OE	3	3	0	0	3
9.	OPY551	Herbal Technology	OE	3	3	0	0	3
10.	OMD552	Hospital Waste Management	OE	3	3	0	0	3
11.	OCH551	Industrial Nanotechnology	OE	3	3	0	0	3
12.	OBT551	Introduction to Bioenergy and Biofuels	OE	3	3	0	0	3
13.	OME553	Industrial Safety Engineering	OE	3	3	0	0	3
14.	OEI551	Logic and Distributed Control Systems	OE	3	3	0	0	3
15.	OBM552	Medical Physics	OE	3	3	0	0	3
16.	OML552	Microscopy	OE	3	3	0	0	3
17.	OBT554	Principles of Food Preservation	OE	3	3	0	0	3
18.	OMF551	Product Design and Development	OE	3	3	0	0	3
19.	OAN551	Sensors and Transducers	OE	3	3	0	0	3
20.	OTL551	Space Time Wireless Communication	OE	3	3	0	0	3
21.	OEC552	Soft Computing	OE	3	3	0	0	3
22.	OTL553	Telecommunication Network Management	OE	3	3	0	0	3
23.	OMD553	Telehealth Technology	OE	3	3	0	0	3
24.	OTL554	Wavelets and its Applications	OE	3	3	0	0	3
25.	OIM551	World Class Manufacturing	OE	3	3	0	0	3

Open Elective – II

Sl No.	Course Code	Course Title	Cat.	CP	L	T	P	C
1.	OAI751	Agricultural Finance, Banking and Co- operation	OE	3	3	0	0	3
2.	OEE751	Basic Circuit Theory	OE	3	3	0	0	3
3.	OBM751	Basics of Human Anatomy and Physiology	OE	3	3	0	0	3
4	OGI751	Climate Change and its Impact	OE	3	3	0	0	3
5	OPY751	Clinical Trials	OE	3	3	0	0	3
6	OEC751	Electronic Devices	OE	3	3	0	0	3
7	OML752	Electronic Materials	OE	3	3	0	0	3

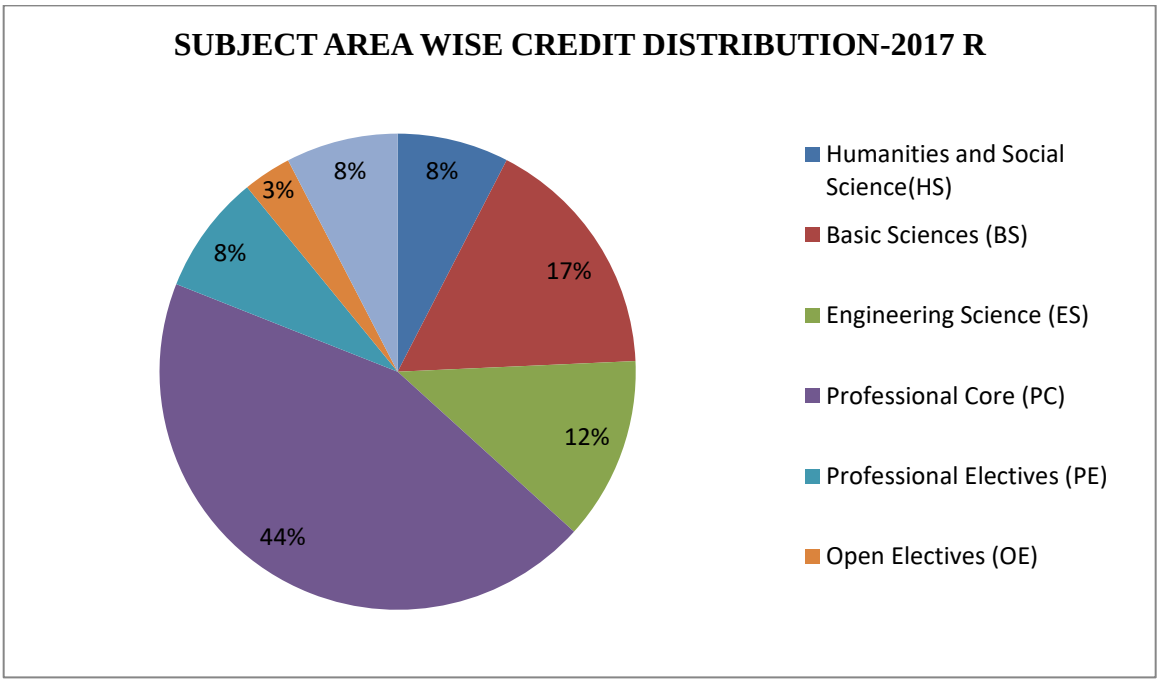
8	OCH752	Energy Technology	OE	3	3	0	0	3
9	OCE751	Environmental and Social Impact Assessment	OE	3	3	0	0	3
10	OGI752	Fundamentals of Planetary Remote Sensing	OE	3	3	0	0	3
11	OEN751	Green Building Design	OE	3	3	0	0	3
12	OBM752	Hospital Management	OE	3	3	0	0	3
13	OEE752	Introduction to Renewable Energy Systems	OE	3	3	0	0	3
14	OBT753	Introduction of Cell Biology	OE	3	3	0	0	3
15	OMF751	Lean Six Sigma	OE	3	3	0	0	3
16	OAN751	Low Cost Automation	OE	3	3	0	0	3
17	OEC754	Medical Electronics	OE	3	3	0	0	3
18	OEC756	MEMS and NEMS	OE	3	3	0	0	3
19	OBT752	Microbiology	OE	3	3	0	0	3
20	OCH751	Process Modeling and Simulation	OE	3	3	0	0	3
21.	OIE751	Robotics	OE	3	3	0	0	3
22.	OEC753	Signals and Systems	OE	4	4	0	0	4
23.	OME752	Supply Chain Management	OE	3	3	0	0	3
24.	OME753	Systems Engineering	OE	3	3	0	0	3
25.	OTL751	Telecommunication System Modeling and Simulation	OE	3	3	0	0	3
26.	OCY751	Waste Water Treatment	OE	3	3	0	0	3
21.	OIE751	Robotics	OE	3	3	0	0	3

Employability Enhancement Courses (EEC)

Sl. No.	Course Code	CourseTitle	Cat.	CP	L	T	P	C
1.	HS8381	Interpersonal Skills/Listening & Speaking	EEC	2	0	0	2	1
2.	HS8461	Advanced Reading and Writing	EEC	2	0	0	2	1
3.	CS8611	Mini Project	EEC	2	0	0	2	1
4.	HS8581	Professional Communication	EEC	2	0	0	2	1
5.	ME8811	Project Work	EEC	20	0	0	20	10

Summary

Sl.No.	Course Area	Credits Per Semester								Credits Total	Percentage%
		I	II	III	IV	V	VI	VII	VIII		
1.	HS	4	7	-	-	-	-	3	-	14	7.61%
2.	BS	12	7	4	4	4	-	-	-	31	16.8%
3.	ES	9	5	9	-	-	-	-	-	23	12.5%
4.	PC	-	5	10	19	18	20	10	-	82	44.5%
5.	PE	-	-	-	-	-	3	6	6	15	8.15%
6.	OE	-	-	-	-	3	-	3		6	3.3%
7.	EEC	-	-	1	1	-	2	-	10	14	7.65%
	Total	25	24	24	24	25	25	22	16	185	100%



Choice Based Credit System (Regulation 2021)

SEMESTER I

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1	IP3151	Induction Programme	-	-	-	-	-	0
Theory								
2	HS3151	Professional English -I	HSMC	3	0	0	3	3
3	MA3151	Matrices and Calculus	BSC	3	1	0	4	4
4	PH3151	Engineering Physics	BSC	3	0	0	3	3
5	CY3151	Engineering Chemistry	BSC	3	0	0	3	3
6	GE3151	Problem Solving and Python Programming	ESC	3	0	0	3	3
7	GE3152	தமிழரமரபு /Heritage ofTamils	HSMC	1	0	0	1	1
Practical								
8	GE3171	Problem Solving and Python Programming Laboratory	ESC	0	0	4	4	2
9	BS3171	Physics and Chemistry Laboratory	BSC	0	0	4	4	2
10	GE3172	English Laboratory $	EEC	0	0	2	2	1
Total				16	1	10	27	22

$ Skill Based Course

SEMESTER II

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
Theory								
1	HS3251	Professional English – II	HSMC	2	0	0	2	2
2	MA3251	Statistics and Numerical Methods	BSC	3	1	0	4	4
3	PH3251	Materials Science	BSC	3	0	0	3	3
#4	BE3251	Basic Electrical and Electronics Engineering	ESC	3	0	0	3	3
5	CS3251	Programming in C	PCC	3	0	0	3	3
6	GE3251	Engineering Graphics	ESC	2	0	4	6	4
7	GE3252	தமிழரும் தொழில் நுட்பமும்/Tamils and Technology	HSMC	1	0	0	1	1
8		NCC Credit Course Level 1*		2	0	0	2	2#
Practical								
9	GE3171	Problem Solving and Python Programming Laboratory	ESC	0	0	4	4	2
10	BS3171	Physics and Chemistry Laboratory	BSC	0	0	4	4	2
11	GE3272	Communication Laboratory /Foreign Language $	EEC	0	0	4	4	2
Total				17	1	16	34	26

se level 1 is offered for NCC students only. The grades earned by the students will be recorded in the Mark Sheet, however the same shall not be considered for the computation of CGPA. $ Skill Based Course

SEMESTER III

Sl No	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
Theory								
1	MA3354	Discrete Mathematics	BSC	3	1	0	4	4
2	CS3351	Digital Principles and Computer Organization	ESC	3	0	2	5	4
3	CS3352	Foundations of Data Science	PCC	3	0	0	3	3
4	CS3301	Data Structures	PCC	3	0	0	3	3

5	CS3391	Object Oriented Programming	PCC	3	0	0	3	3
Practical								
6	CS3311	Data Structures Laboratory	PCC	0	0	3	3	1.5
7	CS3381	Object Oriented Programming Laboratory	PCC	0	0	3	3	1.5
8	CS3361	Data Science Laboratory	PCC	0	0	4	4	2
9	GE3361	Professional Development[$]	EEC	0	0	2	2	1
Total				15	1	14	30	23

$ Skill Based Course

SEMESTER IV

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
Theory								
1.	CS3452	Theory of Computation	PCC	3	0	0	3	3
2.	CS3491	Artificial Intelligence and Machine Learning	PCC	3	0	2	5	4
3.	CS3492	Database Management Systems	PCC	3	0	0	3	3
4.	CS3401	Algorithms	PCC	3	0	2	5	4
5.	CS3451	Introduction to Operating Systems	PCC	3	0	0	3	3
6.	GE3451	Environmental Sciences and Sustainability	BSC	2	0	0	2	2
7.		NCC Credit Course Level 2[#]		3	0	0	3	3 [#]
Practical								
8.	CS3461	Operating Systems Laboratory	PCC	0	0	3	3	1.5
9.	CS3481	Database Management Systems Laboratory	PCC	0	0	3	3	1.5
Total				20	0	10	30	22

[#] NCC Credit Course level 2 is offered for NCC students only. The grades earned by the students will be recorded in the Mark Sheet, however the same shall not be considered for the computation of CGPA.

SEMESTER V

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
Theory								
1.	CS3591	Computer Networks	PCC	3	0	2	5	4
2.	CS3501	Compiler Design	PCC	3	0	2	5	4

3.	CB3491	Cryptography and Cyber Security	PCC	3	0	0	3	3
4.	CS3551	Distributed Computing	PCC	3	0	0	3	3
5.		Professional Elective I	PEC	-	-	-	-	3
6.		Professional Elective II	PEC	-	-	-	-	3
7.		Mandatory Course-I[&]	MC	3	0	0	3	0
Total				-	-	-	-	20

[&] Mandatory Course-I is a Non-credit Course (Student shall select one course from the list givenunder Mandatory Course-I

SEMESTER VI

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
Theory								
1.	CCS356	Object Oriented Software Engineering	PCC	3	0	2	5	4
2.	CS3691	Embedded Systems and IoT	PCC	3	0	2	5	4
3.		Open Elective – I*	OEC	3	0	0	3	3
4.		Professional Elective III	PEC	-	-	-	-	3
5.		Professional Elective IV	PEC	-	-	-	-	3
6.		Professional Elective V	PEC	-	-	-	-	3
7.		Professional Elective VI	PEC	-	-	-	-	3
8.		Mandatory Course-II [&]	MC	3	0	0	3	0
9.		NCC Credit Course Level 3[#]		3	0	0	3	3[#]
Total				-	-	-	-	23

***Open Elective – I shall be chosen from the list of open electives offered by other Programmes [&] Mandatory Course-II is a Non-credit Course (Student shall select one course from the list given under Mandatory Course-II)**

[#] NCC Credit Course level 3 is offered for NCC students only. The grades earned by the students will be recorded in the Mark Sheet, however the same shall not be considered for the computation of CGPA

SEMESTER VII / VIII*

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
Theory								
1.	GE3791	Human Values and Ethics	HSMC	2	0	0	2	2
2.		Elective - Management[#]	HSMC	3	0	0	3	3
3.		Open Elective – II**	OEC	3	0	0	3	3

4.		Open Elective – III**	OEC	3	0	0	3	3
5.		Open Elective – IV**	OEC	3	0	0	3	3
Practical								
6.	CS3711	Summer internship	EEC	0	0	0	0	2
Total				14	0	0	14	16

***If students undergo internship in Semester VII, then the courses offered during semester VII willbe offered during semester VIII.**

** Open Elective II - IV (Shall be chosen from the list of open electives offered by other Programmes).

[#] **Elective - Management shall be chosen from the Elective Management courses.**

SEMESTER VIII /VII*

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
Practical								
1.	CS3811	Project Work/Internship	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

***If students undergo internship in Semester VII, then the courses offered during semester VII will beoffered during semester VIII**

TOTAL CREDITS: 162

Elective – Management Courses

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	GE3751	Principles of Management	HSMC	3	0	0	3	3
2.	GE3752	Total Quality Management	HSMC	3	0	0	3	3
3.	GE3753	Engineering Economics and Financial Accounting	HSMC	3	0	0	3	3
4.	GE3754	Human Resource Management	HSMC	3	0	0	3	3
5.	GE3755	Knowledge Management	HSMC	3	0	0	3	3
6.	GE3792	Industrial Management	HSMC	3	0	0	3	3

Mandatory Courses I

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	MX3081	Introduction to Women and Gender Studies	MC	3	0	0	3	0
2.	MX3082	Elements of Literature	MC	3	0	0	3	0
3.	MX3083	Film Appreciation	MC	3	0	0	3	0

4.	MX3084	Disaster Risk Reduction and Management	MC	3	0	0	3	0

Mandatory Courses II

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	MX3085	Well Being with Traditional Practices -Yoga, Ayurveda and Siddha	MC	3	0	0	3	0
2.	MX3086	History of Science and Technology in India	MC	3	0	0	3	0
3.	MX3087	Political and Economic Thought for a HumaneSociety	MC	3	0	0	3	0
4.	MX3088	State, Nation Building and Politics in India	MC	3	0	0	3	0
5.	MX3089	Industrial Safety	MC	3	0	0	3	0

PROFESSIONAL ELECTIVE COURSES: VERTICALS

Vertical I Data Science	Vertical II Full Stack Development	Vertical III Cloud Computing and Data Center Technologies	Vertical IV Cyber Security and Data Privacy	Vertical V Creative Media	Vertical VI Emerging Technologies	Vertical VII Artificial Intelligence and Machine Learning
Exploratory DataAnalysis	Web Technologies	Cloud Computing	Ethical Hacking	Augmented Reality/Virtual Reality	Augmented Reality/Virtual Reality	Knowledge Engineering
Recommender Systems	App Development	Virtualization	Digital and Mobile Forensics	Multimediaand Animation	Robotic Process Automation	Soft Computing
Neural Networks and Deep Learning	Cloud Services Management	Cloud Services Management	Social Network Security	Video Creation and Editing	Neural Networks and Deep Learning	Neural Networksand Deep Learning
Text and Speech Analysis	UI and UX Design	Data Warehousing	Modern Cryptography	UI and UX Design	Cyber security	Text and Speech Analysis
Business Analytics	Software Testing and Automation	Storage Technologies	Engineering Secure Software Systems	Digital marketing	Quantum Computing	Optimization Techniques
Image and VideoAnalytics	Web Application Security	Software Defined Networks	Cryptocurrency and Blockchain Technologies	Visual Effects	Cryptocurrency and Blockchain Technologies	Game Theory
Computer Vision	DevOps	Stream Processing	Network Security	Game Development	Game Development	Cognitive Science

Big Data Analytics	Principles of Programming Languages	Security and Privacy in Cloud	Security and Privacy in Cloud	Multimedia Data Compression and Storage	3D Printingand Design	Ethics And AI

Registration of Professional Elective Courses from Verticals:

Professional Elective Courses will be registered in Semesters V and VI. These courses are listed in groups called verticals that represent a particular area of specialization / diversified group. Students are permitted to choose all the Professional Electives from a particular vertical or from different verticals. Further, only one Professional Elective course shall be chosen in a semester horizontally (row-wise). However, two courses are permitted from the same row, provided one course is enrolled in Semester V andanother in semester VI.

The registration of courses for B.E./B.Tech (Honours) or Minor degree shall be done from Semester V to VIII. The procedure for registration of courses explained above shall be followed for the courses of B.E/B.Tech (Honours) or Minor degree also. For more details on B.E./B.Tech (Honours) or Minor degree refer to the Regulations 2021, Clause 4.10 (Amendments).

Professional Elective Courses: Verticals

Vertical 1: Data Science

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	CCS346	Exploratory Data Analysis	PEC	2	0	2	4	3
2.	CCS360	Recommender Systems	PEC	2	0	2	4	3
3.	CCS355	Neural Networks and Deep Learning	PEC	2	0	2	4	3
4.	CCS369	Text and Speech Analysis	PEC	2	0	2	4	3
5.	CCW331	Business Analytics	PEC	2	0	2	4	3
6.	CCS349	Image and Video Analytics	PEC	2	0	2	4	3
7.	CCS338	Computer Vision	PEC	2	0	2	4	3
8.	CCS334	Big Data Analytics	PEC	2	0	2	4	3

Vertical 2: Full Stack Development

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	CCS375	Web Technologies	PEC	2	0	2	4	3
2.	CCS332	App Development	PEC	2	0	2	4	3
3.	CCS336	Cloud Services Management	PEC	2	0	2	4	3

4.	CCS370	UI and UX Design	PEC	2	0	2	4	3
5.	CCS366	Software Testing and Automation	PEC	2	0	2	4	3
6.	CCS374	Web Application Security	PEC	2	0	2	4	3
7.	CCS342	DevOps	PEC	2	0	2	4	3
8.	CCS358	Principles of Programming Languages	PEC	3	0	0	3	3

Vertical 3: Cloud Computing And Data Center Technologies

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	CCS335	Cloud Computing	PEC	2	0	2	4	3
2.	CCS372	Virtualization	PEC	2	0	2	4	3
3.	CCS336	Cloud Services Management	PEC	2	0	2	4	3
4.	CCS341	Data Warehousing	PEC	2	0	2	4	3
5.	CCS367	Storage Technologies	PEC	3	0	0	3	3
6.	CCS365	Software Defined Networks	PEC	2	0	2	4	3
7.	CCS368	Stream Processing	PEC	2	0	2	4	3
8.	CCS362	Security and Privacy in Cloud	PEC	2	0	2	4	3

Vertical 4: Cyber Security and Data Privacy

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	CCS344	Ethical Hacking	PEC	2	0	2	4	3
2.	CCS343	Digital and Mobile Forensics	PEC	2	0	2	4	3
3.	CCS363	Social Network Security	PEC	2	0	2	4	3
4.	CCS351	Modern Cryptography	PEC	2	0	2	4	3
5.	CB3591	Engineering Secure Software Systems	PEC	2	0	2	4	3
6.	CCS339	Cryptocurrency and Blockchain Technologies	PEC	2	0	2	4	3
7.	CCS354	Network Security	PEC	2	0	2	4	3

8.	CCS362	Security and Privacy in Cloud	PEC	2	0	2	4	3

Vertical 5: Creative Media

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	CCS333	Augmented Reality/Virtual Reality	PEC	2	0	2	4	3
2.	CCS352	Multimedia and Animation	PEC	2	0	2	4	3
3.	CCS371	Video Creation and Editing	PEC	2	0	2	4	3
4.	CCS370	UI and UX Design	PEC	2	0	2	4	3
5.	CCW332	Digital marketing	PEC	2	0	2	4	3
6.	CCS373	Visual Effects	PEC	2	0	2	4	3
7.	CCS347	Game Development	PEC	2	0	2	4	3
8.	CCS353	Multimedia Data Compression and Storage	PEC	2	0	2	4	3

Vertical 6: Emerging Technologies

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	CCS333	Augmented Reality/Virtual Reality	PEC	2	0	2	4	3
2.	CCS361	Robotic Process Automation	PEC	2	0	2	4	3
3.	CCS355	Neural Networks and Deep Learning	PEC	2	0	2	4	3
4.	CCS340	Cyber security	PEC	2	0	2	4	3
5.	CCS359	Quantum Computing	PEC	2	0	2	4	3
6.	CCS339	Cryptocurrency and Block chain Technologies	PEC	2	0	2	4	3
7.	CCS347	Game Development	PEC	2	0	2	4	3
8.	CCS331	3D Printing and Design	PEC	2	0	2	4	3

Vertical 7: Artificial Intelligence and Machine Learning

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	CCS350	Knowledge Engineering	PEC	2	0	2	4	3
2.	CCS364	Soft Computing	PEC	2	0	2	4	3
3.	CCS355	Neural Networks and Deep Learning	PEC	2	0	2	4	3
4.	CCS369	Text and Speech Analysis	PEC	2	0	2	4	3
5.	CCS357	Optimization Techniques	PEC	2	0	2	4	3
6.	CCS348	Game Theory	PEC	2	0	2	4	3
7.	CCS337	Cognitive Science	PEC	2	0	2	4	3
8.	CCS345	Ethics And AI	PEC	2	0	2	4	3

Open Electives

(Students shall choose the open elective courses, such that the course contents are not similar toany other course contents/title under other course categories).

Open Electives – I

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	OAS351	Space Science	OEC	3	0	0	3	3
2.	OIE351	Introduction to Industrial Engineering	OEC	3	0	0	3	3
3.	OBT351	Food, Nutrition and Health	OEC	3	0	0	3	3
4.	OCE351	Environment and Social Impact Assessment	OEC	3	0	0	3	3
5.	OEE351	Renewable Energy System	OEC	3	0	0	3	3
6.	OEI351	Introduction to Industrial Instrumentation and Control	OEC	3	0	0	3	3
7.	OMA351	Graph Theory	OEC	3	0	0	3	3

Open Electives – II

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	OIE352	Resource Management Techniques	OEC	3	0	0	3	3

2.	OMG351	Fintech Regulation	OEC	3	0	0	3	3
3.	OFD351	Holistic Nutrition	OEC	3	0	0	3	3
4.	AI3021	IT in Agricultural System	OEC	3	0	0	3	3
5.	OEI352	Introduction to Control Engineering	OEC	3	0	0	3	3
6.	OPY351	Pharmaceutical Nanotechnology	OEC	3	0	0	3	3
7.	OAE351	Aviation Management	OEC	3	0	0	3	3

Open Electives – III

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	OHS351	English for Competitive Examinations	OEC	3	0	0	3	3
2.	OMG352	NGOs and Sustainable Development	OEC	3	0	0	3	3
3.	OMG353	Democracy and Good Governance	OEC	3	0	0	3	3
4.	CME365	Renewable Energy Technologies	OEC	3	0	0	3	3
5.	OME354	Applied Design Thinking	OEC	3	0	0	3	3
6.	MF3003	Reverse Engineering	OEC	3	0	0	3	3
7.	OPR351	Sustainable Manufacturing	OEC	3	0	0	3	3
8.	AU3791	Electric and Hybrid Vehicles	OEC	3	0	0	3	3
9.	OAS352	Space Engineering	OEC	3	0	0	3	3
10.	OIM351	Industrial Management	OEC	3	0	0	3	3
11.	OIE354	Quality Engineering	OEC	3	0	0	3	3
12.	OSF351	Fire Safety Engineering	OEC	3	0	0	3	3
13.	OML351	Introduction to Non-destructive Testing	OEC	3	0	0	3	3
14.	OMR351	Mechatronics	OEC	3	0	0	3	3
15.	ORA351	Foundation of Robotics	OEC	3	0	0	3	3
16.	OAE352	Fundamentals of Aeronautical Engineering	OEC	3	0	0	3	3
17.	OGI351	Remote Sensing Concepts	OEC	3	0	0	3	3
18.	OAI351	Urban Agriculture	OEC	3	0	0	3	3
19.	OEN351	Drinking Water Supply and Treatment	OEC	3	0	0	3	3

20.	OEE352	Electric Vehicle Technology	OEC	3	0	0	3	3
21.	OEI353	Introduction to PLC Programming	OEC	3	0	0	3	3
22.	OCH351	Nano Technology	OEC	3	0	0	3	3
23.	OCH352	Functional Materials	OEC	3	0	0	3	3
24.	OFD352	Traditional Indian Foods	OEC	3	0	0	3	3
25.	OFD353	Introduction to food processing	OEC	3	0	0	3	3
26.	OPY352	IPR for Pharma Industry	OEC	3	0	0	3	3
27.	OTT351	Basics of Textile Finishing	OEC	3	0	0	3	3
28.	OTT352	Industrial Engineering for Garment Industry	OEC	3	0	0	3	3
29.	OTT353	Basics of Textile Manufacture	OEC	3	0	0	3	3
30.	OPE351	Introduction to Petroleum Refining and Petrochemicals	OEC	3	0	0	3	3
31.	CPE334	Energy Conservation and Management	OEC	3	0	0	3	3
32.	OPT351	Basics of Plastics Processing	OEC	3	0	0	3	3
33.	OEC351	Signals and Systems	OEC	3	0	0	3	3
34.	OEC352	Fundamentals of Electronic Devices and Circuits	OEC	3	0	0	3	3
35.	CBM348	Foundation Skills in Integrated Product Development	OEC	3	0	0	3	3
36.	CBM333	Assistive Technology	OEC	3	0	0	3	3
37.	OMA352	Operations Research	OEC	3	0	0	3	3
38.	OMA353	Algebra and Number Theory	OEC	3	0	0	3	3
39.	OMA354	Linear Algebra	OEC	3	0	0	3	3
40.	OCE353	Lean Concepts, Tools and Practices	OEC	3	0	0	3	3
41.	OBT352	Basics of Microbial Technology	OEC	3	0	0	3	3
42.	OBT353	Basics of Biomolecules	OEC	3	0	0	3	3
43.	OBT354	Fundamentals of Cell and Molecular Biology	OEC	3	0	0	3	3

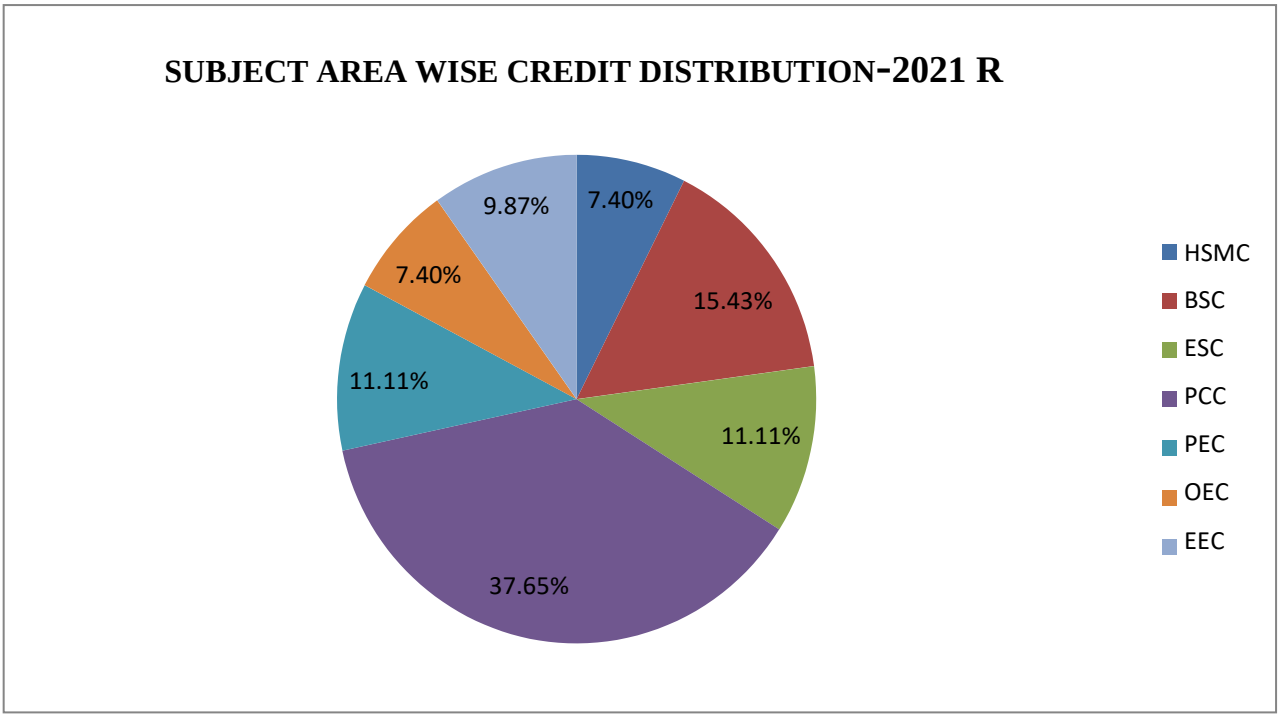
Open Electives – IV

Sl. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact periods	Credits
				L	T	P		
1.	OHS352	Project Report Writing	OEC	3	0	0	3	3
2.	OMA355	Advanced Numerical Methods	OEC	3	0	0	3	3
3.	OMA356	Random Processes	OEC	3	0	0	3	3
4.	OMA357	Queuing and Reliability Modelling	OEC	3	0	0	3	3
5.	OMG354	Production and Operations Managementfor Entrepreneurs	OEC	3	0	0	3	3
6.	OMG355	Multivariate Data Analysis	OEC	3	0	0	3	3
7.	OME352	Additive Manufacturing	OEC	3	0	0	3	3
8.	CME343	New Product Development	OEC	3	0	0	3	3
9.	OME355	Industrial Design & Rapid Prototyping Techniques	OEC	3	0	0	3	3
10.	MF3010	Micro and Precision Engineering	OEC	3	0	0	3	3
11.	OMF354	Cost Management of Engineering Projects	OEC	3	0	0	3	3
12.	AU3002	Batteries and Management system	OEC	3	0	0	3	3
13.	AU3008	Sensors and Actuators	OEC	3	0	0	3	3
14.	OAS353	Space Vehicles	OEC	3	0	0	3	3
15.	OIM352	Management Science	OEC	3	0	0	3	3
16.	OIM353	Production Planning and Control	OEC	3	0	0	3	3
17.	OIE353	Operations Management	OEC	3	0	0	3	3
18.	OSF352	Industrial Hygiene	OEC	3	0	0	3	3
19.	OSF353	Chemical Process Safety	OEC	3	0	0	3	3
20.	OML352	Electrical, Electronic and Magnetic materials	OEC	3	0	0	3	3
21.	OML353	Nanomaterials and Applications	OEC	3	0	0	3	3
22.	OMR352	Hydraulics and Pneumatics	OEC	3	0	0	3	3
23.	OMR353	Sensors	OEC	3	0	0	3	3
24.	ORA352	Concepts in Mobile Robots	OEC	3	0	0	3	3
25.	MV3501	Marine Propulsion	OEC	3	0	0	3	3
26.	OMV351	Marine Merchant Vessels	OEC	3	0	0	3	3
27.	OMV352	Elements of Marine Engineering	OEC	3	0	0	3	3

28.	CRA332	Drone Technologies	OEC	3	0	0	3	3
29.	OGI352	Geographical Information System	OEC	3	0	0	3	3
30.	OAI352	Agriculture Entrepreneurship Development	OEC	3	0	0	3	3
31.	OEN352	Biodiversity Conservation	OEC	3	0	0	3	3
32.	OEE353	Introduction to control systems	OEC	3	0	0	3	3
33.	OEI354	Introduction to Industrial Automation Systems	OEC	3	0	0	3	3
34.	OCH353	Energy Technology	OEC	3	0	0	3	3
35.	OCH354	Surface Science	OEC	3	0	0	3	3
36.	OFD354	Fundamentals of Food Engineering	OEC	3	0	0	3	3
37.	OFD355	Food safety and Quality Regulations	OEC	3	0	0	3	3
38.	OPY353	Nutraceuticals	OEC	3	0	0	3	3
39.	OTT354	Basics of Dyeing and Printing	OEC	3	0	0	3	3
40.	FT3201	Fibre Science	OEC	3	0	0	3	3
41.	OTT355	Garment Manufacturing Technology	OEC	3	0	0	3	3
42.	OPE353	Industrial safety	OEC	3	0	0	3	3
43.	OPE354	Unit Operations in Petro Chemical Industries	OEC	3	0	0	3	3
44.	OPT352	Plastic Materials for Engineers	OEC	3	0	0	3	3
45.	OPT353	Properties and Testing of Plastics	OEC	3	0	0	3	3
46.	OEC353	VLSI Design	OEC	3	0	0	3	3
47.	CBM370	Wearable Devices	OEC	3	0	0	3	3
48.	CBM356	Medical Informatics	OEC	3	0	0	3	3
49.	OCE354	Basics of Integrated Water Resources Management	OEC	3	0	0	3	3
50.	OBT355	Biotechnology for Waste Management	OEC	3	0	0	3	3
51.	OBT356	Lifestyle Diseases	OEC	3	0	0	3	3
52.	OBT357	Biotechnology in Health Care	OEC	3	0	0	3	3

Summary

Name of the Programme: B.E. Computer Science andEngineering											
Sl.No	Subject Area	Credits per Semester								Total Credits	Percentage
		I	II	III	I V	V	VI	VII/VIII	VIII/VII		
1	HSMC	4	3					5		12	7.40
2	BSC	12	7	4	2					25	15.43
3	ESC	5	9	4						18	11.11
4	PCC		5	14	20	14	8			61	37.65
5	PEC					6	12			18	11.11
6	OEC						3	9		12	7.40
7	EEC	1	2	1				2	10	16	9.87
8	Non-Credit/(Mandatory)					√	√				
Total		22	26	23	22	20	23	16	10	162	100



Program Outcomes (POs)

Computer Science and Engineering Graduates will be able to:

PO	Description
PO1	**Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
PO2	**Problem Analysis:** Identify, formulate, review research literature and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
PO3	**Design/ Development of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.
PO4	**Conduct Investigation of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretations of data, and synthesis of the information to provide valid conclusions.
PO5	**Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling tocomplex engineering activities with an understanding of the limitations.
PO6	**The Engineering and Society:** Apply reasoning informed by the contextual knowledge to access social, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development.
PO8	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and Team Work:** Function effectively as an individual, and as a member or leader in diver set seams and in multidisciplinary settings.
PO10	**Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	**Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments
PO12	**Life-long learning:** Recognise the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context oftechnological change.

Program Specific Outcomes (PSO) (2017 Regulation)

PSO	Description
PSO.1	**Foundation of computational technologies**: Analyze, design and develop computing solutions by applying foundational concepts of Computer Science andEngineering.
PSO.2	**Software deployment process**: Apply software engineering principles and practices for developing quality software for scientific and business applications
PSO.3	**Deployment of new technologies:** Adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.

Program Specific Outcomes (PSO)(2021 Regulation)

PSO	Description
PSO.1	**Software Development**: Exhibit design and programming skills to build and automate business solutions using cutting edge technologies.
PSO.2	**Building Theoretical Foundation for Research and Development** : Strong theoretical foundation leading to excellence and excitement towards research, toprovide elegant solutions to complex problems
PSO.3	**Interdisciplinary Application Development:** Ability to work effectively withvarious engineering fields as a team to design, build and develop system applications.

2.1.1. State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure I. Also mention the identified curricular gaps, if any

Anjalai Ammal Mahalingam Engineering College is affiliated to Anna University, Chennai and the curriculum prescribed by Anna University contributes for the attainment of COs, POs and PSOs. Based on the various categories of courses like Humanities and Social Science (HS) Courses, Basic Sciences (BS) Courses, Engineering Science (ES) Courses, Professional Core (PC) courses etc. and its corresponding mapping with POs and PSOs, the curricular gaps are identified for individual courses. The faculty members take effect to fill the curricular gaps through "content beyond syllabus" as well as additional seminar and workshops.

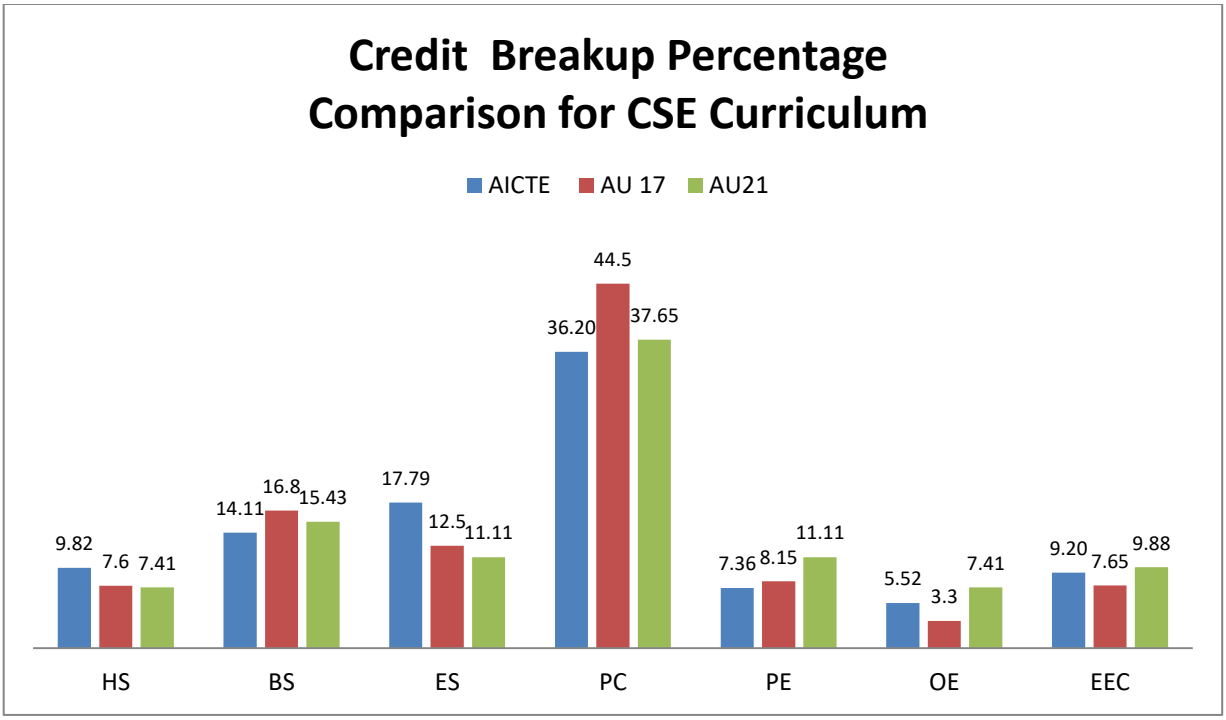
The Process used to identify the extent of compliance of the University curriculum for attaining the Program Outcomes (POs) and Program Specific Outcomes (PSOs) is described below**.**

- The program curriculum is categorized into various streams like Humanities and Social Science (HS), Basic Sciences (BS), Engineering Science (ES), Professional Core (PC), Professional Electives (PE), Employability Enhancement Courses (EEC).

- Courses in each stream are identified and COs are mapped with POs and PSOs by the concerned faculty member.
- Faculty members calculate attainment of Course Outcomes (COs), Program Outcomes (POs), Program Specific Outcomes (PSOs). Faculty members identify curricular gaps with respect to particular course.
- As a unique practice in the department, interaction with alumni is done to identify curricular gaps considering the present industry scenarios.
- The curriculum and syllabi of reputed institutes like IITs, NITs, Universities, GATE syllabus and AICTE model curriculum are taken as reference to identify curricular gaps in each subject.
- These curricular gaps are fulfilled through content beyond the syllabus, guest lectures and workshops.

Credit Breakup Comparison for CSE curriculum

S.No	Category Suggested	Break up of Credits		
		AICTE	**Anna University Regulation 2017**	**Anna University Regulation 20 21**
1	Humanities and Social Sciences including Management courses	16	14	12
2	Basic Science courses	23	31	25
3	Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc	29	23	18
4	Professional core courses	59	82	61
5	Professional Elective courses relevant to chosen specialization/branch	12	15	18
6	Open subjects – Electives from other technical and /or emerging subjects	9	6	12
7	Project work, seminar and internship in industry or elsewhere 15*	15	13	16
8	Mandatory Courses [Environmental Sciences, Induction training, Indian Constitution, Essence of Indian Traditional Knowledge]	Non credit	Non credit	Non credit
	Total	**163**	**184**	**162**



A. Mapping of the courses with the Program Outcomes (Regulation 2017)

Course Code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101-HS8151	Communicative English	-	-	-	-	-	-	-	3	3	3	-	1
C102-MA8151	Engineering Mathematics - I	3	2	3	-	-	-	-	-	2	-	-	-
C103-PH8151	Engineering Physics	3	3	3	-	-	-	-	-	-	-	-	-
C104-CY8151	Engineering Chemistry	3	2	3	-	-	-	-	-	-	-	-	-
C105-GE8151	Problem Solving and Python Programming	3	2	2	-	3	-	-	-	-	-	-	2
C106-GE8152	Engineering Graphics	3	2	3	-	-	-	-	3	3	3	-	3
C107-GE8161	Problem Solving and Python Programming Laboratory	3	3	3	-	-	-	-	3	3	3	-	3
C108-BS8161	Physics and Chemistry Laboratory	3	3	3	-	-	-	-	2	3	2	-	-

Course Code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C109-HS8251	Technical English	-	-	-	-	-	-	-	2	3	3	-	1
C110-MA8251	Engineering Mathematics - II	3	2	3	-	-	-	-	-	2	-	-	-
C111-PH8252	Physics for Information Science	3	2	3	-	-	-	-	-	-	-	-	-
C112-BE8255	Basic Electrical, Electronics and Measurement Engineering	3	2	3	-	-	-	-	-	-	-	-	-
C113-GE8291	Environmental Science and Engineering	2	3	2	-	-	-	3	3	3	3	-	2
C114-CS8251	Programming in C	3	3	2	-	-	-	-	2	3	3	-	3
C115-GE8261	Engineering Practices Laboratory	2	1	2	1	2	2	-	2	2	1	-	2
C116-CS8261	C Programming Laboratory	3	3	3	-	-	-	-	3	3	3	-	3
C201-MA8351	Discrete Mathematics	3	2	3	-	-	-	-	-	2	-	-	-
C202-CS8351	Digital Principles and System Design	3	3	3	-	-	-	-	-	-	-	-	-
C203-CS8391	Data Structures	3	3	1	-	-	-	-	-	-	-	-	-
C204-CS8392	Object Oriented Programming	2	2	3	-	-	-	-	-	-	-	-	-
C205-EC8395	Communication Engineering	2.6	2.8	2.6	-	-	-	-	-	-	-	-	-
C206-CS8383	Data Structures Laboratory	3	3	1	-	-	-	-	3	3	2	-	2
C207-CS8382	Object Oriented Programming Laboratory	3	3	3	-	-	-	-	3	3	3	-	3
C208-CS8382	Digital Systems Laboratory	3	2	2	-	-	2	-	1	1	1	-	1
C209-HS8381	Interpersonal Skills/Listening &Speaking	-	-	-	-	-	-	-	3	3	3	-	3
C210-MA8402	Probability and Queueing Theory	2.8	2	1	-	-	-	-	-	-	-	-	3
C211-CS8491	Computer Architecture	3	3	3	-	-	-	-	-	-	-	-	-

Course Code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212-CS8492	Database Management Systems	3	2	3	-	-	-	-	-	-	-	-	-
C213-CS8451	Design and Analysis of Algorithms	3	3	2	-	-	-	-	-	2	3	-	2
C214-CS8493	Operating Systems	3	2	3	-	-	-	-	-	-	-	-	-
C215-CS8494	Software Engineering	3	2.2	2	-	2	2	-	2	2	1.8	-	1.8
C216-CS8481	Database Management Systems Laboratory	3	2	3	-	-	-	-	3	1	3	-	2
C217-CS8461	Operating Systems Laboratory	3	3	3	-	-	-	-	3	3	3	-	3
C218-HS8461	Advanced Reading and Writing EEC	-	-	-	-	-	-	-	3	3	3	-	3
C301-MA8551	Algebra and Number Theory	3	2	3	-	-	-	-	-	2	-	-	-
C302-CS8591	CS8591 Computer Networks	3	2	3	-	-	-	-	-	-	-	-	-
C303-EC8691	EC8691 Microprocessors and Microcontrollers	3	3	3	-	3	-	-	-	-	-	-	-
C304-CS8501	Theory of Computation	3	1	2	-	-	-	-	-	-	-	-	-
C305-CS8592	CS8592 Object Oriented Analysis and Design	1.6	3	2.8	-	-	2.4	-	-	-	-	-	-
C306-OEC552	Soft Computing	3	2.6	3	-	-	-	-	-	-	-	-	-
C307-EC8681	Microprocessors and Microcontrollers Laboratory	3	3	3	-	-	-	-	3	3	3	-	3
C308-CS8582	Object Oriented Analysis and Design Laboratory	2	3	3	-	3	3	-	3	3	3	-	3
C309-CS8581	Networks Laboratory	3	3	2.6	-	-	-	-	3	2.6	1	-	3
C310-CS8651	Internet Programming	1	2.2	3	-	3	-	-	-	2	-	-	-
C311-CS8691	Artificial Intelligence	2.6	2.8	2.6	-	-	-	-	-	-	-	-	-
C312-CS8601	Mobile Computing	3	2.6	2.8	-	-	-	-	-	-	-	-	-
C313-CS8602	Compiler Design	3	3	3	-	-	-	-	1	1.4	1.4	-	2

Course Code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314-CS8603	Distributed Systems	3	3	3	-	-	-	-	-	-	-	-	-
C315-CS8075	Data Warehousing and Data Mining	3	1.8	1.8	-	-	-	-	-	-	-	-	-
C316-CS8661	Internet Programming Laboratory	0.3	1	1.3	-	3	-	-	1	2	2	-	2
C317-CS8662	Mobile Application Development Laboratory	3	2	2.66	-	-	-	-	1	2.6	1	-	3
C318-CS8611	Mini Project	2	2	2	2	2	1	1	1	3	1	2	1
C319-HS8581	Professional Communication	-	-	-	-	-	3	-	-	-	3	-	3
C401-MG8591	Principles of Management	3	2	2	-	-	-	-	-	-	-	2.4	-
C402-CS8792	Cryptography and Network Security	2	3	1	-	-	-	-	-	-	-	-	-
C403-CS8791	Cloud Computing	2	2.4	2.2	-	-	-	-	-	-	-	-	-
C404-OME752	Supply Chain Management	0.4	1	2.4	-	0.6	1.2	2	1	2.4	-	0.6	1.2
C405-CS8083	Big Data Analytics	2	2.4	2.2	-	2	-	-	-	1.6	1.6	-	-
C406-CS8091	Multi-core Architecture and Programming	2.2	2.6	2.8	-	-	-	-	-	-	-	-	-
C407-CS8091	Cloud Computing Laboratory	2.33	3	3	-	3	-	-	3	2.6	2	-	3
C408-IT8761	Security Laboratory	3	3	3		3	-	-	2.6	2	3	-	2.6
C409-GE8076	Professional Ethics in Engineering	-	-	-	-	-	-	-	3	-	-	-	3
C410-CS8080	Information Retrieval Techniques	2	2.2	2.2	-	-	-	-	-	-	-	-	-
C411-CS8811	Project Work	3	3	2	3	3	3	1	3	3	3	1	2
Percentage		81.7	74.38	76.18	4.17	18.33	16.46	4.9	26.91	42.78	36.04	4.69	34.2
Total		156.86	145.8	153.25	9	38.2	23.6	9.4	66.66	87.13	72.2	9	70.67
AVG		2.45	2.28	2.39	0.14	0.60	0.37	0.15	1.04	1.36	1.13	0.14	1.10
Percentage		81.7	74.38	76.18	4.17	18.33	16.46	4.9	26.91	42.78	36.04	4.69	34.2

Curricular Gaps Identification process

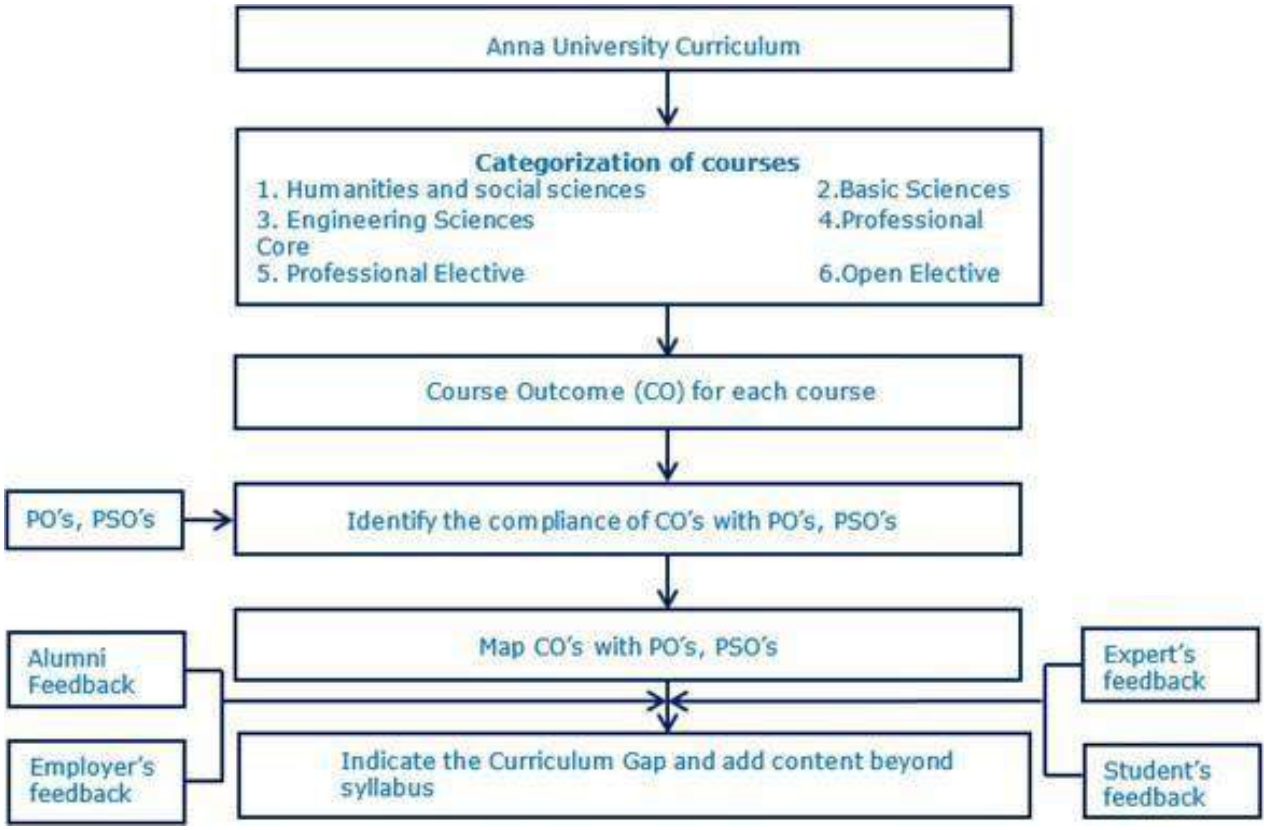


Figure. 2.1 Process used to identify extent of compliance of universitycurriculum for attaining POs & PSOs

A. List the curricular gaps for the attainment of defined POs & PSOs

Contribution of curriculum towards attainment of programme outcomes. The courses and the course contents prescribed in the curriculum are mapped to the relevant POs and PSOs through individual Course Outcomes (COs). Curriculum gaps are identified through consolidation of CO – PO/PSO mapping of all courses.

PO's	Programme Outcome	Percentage
PO4	Conduct Investigation of Complex Problems	4.69
PO5	Modern Tool Usage	19.9
PO6	The Engineering and Society	12.29
PO7	Environment and Sustainability	4.90
PO8	Ethic	34.72
PO9	Individual and Team Work	45.38
PO10	Communication	37.6
PO11	Project Management and Finance	4.69
PO12	Life-long learning	36.81

Sl.No	Programme Curriculum based on Course Content	Number of Courses	PO's and PSO'sR-2017
1	Humanities and Social Sciences	4	PO1, PO7, PO8, PO10 & PSO1
2	Basic Sciences	9	PO1,PO2, PO3,PO9,PO12 & PSO1
3	Engineering Sciences	8	PO1, PO2, PO3, PO9 & PSO1, PSO3
4	Professional Core	31	PO2, PO3, PO4, PO5, PO6, PO9,PO10,PO11,PO12 & PSO1,PSO2,PSO3
5	Professional Electives	5	PO3,PO4,PO5,PO12& PSO2,PSO3
6	Open Elective	2	PO11, PO12 & PSO2, PSO3
7	Employability Enhancement Course	5	PO10,PO11,PO12 & PSO2, PSO3

The curricular gaps are mainly categorized into three different aspects as mentioned below:

Gap No.	Gap Description
Gap 1	Emerging technologies and advanced Programming Skills
Gap 2	Industry specific skills
Gap 3	Problem solving and Soft skills

Gap Identified in core subjects (Sample)

Sl.No.	Course Code	Course Name	Gap identified
1.	CS8651	Internet Programming	Real time web application
2.	CS8791	Cloud Computing	Case studies on cloud software environments
3.	CS8493	Operating Systems	Synchronization mechanism and security issues in file system management
4.	CS8075	Data warehousing and datamining	Advanced data mining topics
5.	CS8651	Artificial Intelligence	AI search algorithms and application of AI
6.	CS8591	Computer Networks	Advanced Multicast routing algorithm
7.	CS8091	Big Data Analytics	R programming and zookeeper
8.	CS8391	Data Structures	Advanced Data Structures and applications.

2021 REGULATION

Sl.No.	SubjectCode	Subject Name	Gap identified
1	CS3352	Foundations of Data Science	Implementation of data science methods and techniques

2.1.1. State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10)

Initiatives Taken To Address Curricular Gaps

The department has initiated the following measures to bridge the identified curricular gaps.

- **Guest lectures:** Industry and Academic Experts are invited to give lectures to students on the recent trends in Computer Science and Engineering.
- **Technical talk**: Students are updated on the advances technologies in Computer science and Engineering through technical seminars.
- **Workshops**: The department arranges hands on workshop through our alumni working in industry.
- **Soft skill training**: The department takes steps to provide soft skill training to the students both by internal and external experts periodically, so that to improve the employ ability of students
- **Industrial visits** Students visit industries to understand industry environment which will enable them to equip themselves for industry.
- **Internships:** Students are encouraged to participate in short- term internships in industries in order to gain an understanding of industry practices. **NPTEL/MOOCs:** Students are motivated to enroll in various online courses on emerging technologies and trends in computer science and engineering. **Technical club activities:** Students are involved to showcase their technical skills through various clubs like web designing, coders, mathematics club etc.

Content beyond syllabus in core courses (sample)

Sl.No.	Course Code	Course Name	Content beyond syllabus
1.	CS8651	Internet Programming	1. HTML forms and Frames 2. Javascript operators and datatypes 3. Case study: Health care management system using JSP 4. PHP operator precedence chart 5. Web services: Universal Description, Discovery and Integration (UDDI)
2.	CS8791	Cloud Computing	Case studies on Eucalyptus, Open Nebula, OpenStack, Aneka, CloudSim
3.	CS8493	Operating Systems	1. Virtual Machines 2. Synchronization - Petersons Solution, Bakery. Algorithm 3. Stable-Storage Implementation, Tertiary-Storage Structure 4. Log-Structured File System, NFS 5. Authentication - Spoofing - Case study of a virus on UNIX.

4.	CS8075	Data warehousing and data mining	Advanced data mining topics like web mining, text mining, spatial and temporal mining
5.	CS8651	Artificial Intelligence	1. PEAS-agent system 2. AO* search 3. Resolution practical problems 4. Deep learning techniques 5. Machine learning techniques
6.	CS8591	Computer Networks	Advanced multicast routing algorithms 1. Reverse Path Broadcasting (RPB) 2. Truncated Reverse Path Broadcasting(TRPB) 3. Internet Group Management Protocol (IGMP) 4. Reverse path multicasting (RPM)
7.	CS8091	Big Data Analytics	R programming and zookeeper 1. Reading and getting data into R 2. Ordered and unordered factors 3. Arrays and matrices 4. Fundamentals of zookeeper
8.	CS8391	Data Structures	Advanced data structures and applications 1. Multi lists 2. Application of Stack ADT – Balancing Symbols 3. Splay trees 4. d-Heaps 5. Merge Sort, Heap Sort

Content beyond syllabus in core courses (sample)

Sl.No.	Course Code	Course Name	Content beyond syllabus
1.	CS3251	Programming in C	Advanced C 1.Sorting-Bubble Sort 2.Double Linked List 3.stack 4.Queue
2.	CS3451	Introduction to Operating Systems	Case Study on Linux System

Representation to University to include state of the art topics in revision of curriculum for BE-CSE

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
(Approved by AICTE and Affiliated to Anna Universtsity, Chennai)
KOYILVENNI - 614 403. THIRUVARUR Dist. TAMILNADU.
☎ Off : 04374-232516, 232696
E-mail : principal@aamec.edu.in
Web : www.aamec.edu.in

Date: 30.12.2020

To

The Director,
Center for Academic Courses,
Anna University,
Chennai.

Sir,

Sub: Suggestion for revision of curriculum - B.E degree in Computer Science and Engineering Programme - R2021 – reg.,

The curriculum for B.E degree in Computer Science and Engineering covers fundamental aspects of Computer Science and Engineering and provides scope for latest technologies through professional electives and open electives.

Considering the present scenario in software industry and market demand for job opportunities, it is suggested that the proposal for B.E degree in Computer Science and Engineering Programme curriculum 2021, may include courses for data science and courses related to machine learning.

This is submitted for your kind consideration to discuss this suggestion in board of studies meeting and to include the courses related to the above mentioned areas in the new curriculum.

This will enable the prospective students to become employable both in India and abroad.

Thank you.,

HoD-CSE

Principal

Principal,
Anjalai Ammal Mahalingam
Engineering College,
Koyilvenni - 614 403

Foundations of Data Science

LINE PLOT : Line plots are used to track changes over short and long periods of time.

EXAMPLE PROGRAM: Here we use the climate dataset to implement the line plot.

```
import pandas as pd
import matplotlib.pyplot as plt
df = pd.read_csv('/content/climate.csv')

#reading csv file  using the pandas lib

df1=pd.DataFrame(df)
plt.plot(df1['Year'],df1['Average
Temperature'],'*:r',ms=10,linewidth=1)

#set the x value as the year and y value as the average temperature.


plt.xlabel("YEAR")

#marker used to identify the ups and downs in the data.

plt.ylabel("AVERAGE TEMPERATURE")
plt.title("AVERAGE TEMPERATURE OF THE NEW DELHI  CITY
YEARWISE",fontweight='bold')
plt.grid()
plt.show()
```

SUB PLOTS : Sometimes it is helpful to compare different views of data side by side.
To this end, Matplotlib has the concept of subplots: groups of smaller axes that can exist
together within a single figure.

EXAMPLE PROGRAM:

```
import matplotlib.pyplot as plt
import pandas as pd
```

Content beyond syllabus in laboratory course (sample)



LAB PLAN

Sub Code & Name : CS6611 - COMPILER LABORATORY

Semester : V

Branch : CSE

Objectives:

- Be exposed to compiler writing tools
- Learn to implement the different Phases of compiler
- Be familiar with control flow and data flow analysis

Session No.	Exercise No.	Experiments to be covered
1	1	Implementation of Symbol Table
2	2	Develop a lexical analyzer to recognize a few patterns in C. (Ex. identifiers, constants, comments, operators etc.)
3	3	Implementation of Lexical Analyzer using Lex Tool
4	4(a)	Program to recognize a valid arithmetic expression that uses operator +, -, * and /.
5	4(b)	Program to recognize a valid variable which starts with a letter followed by any number of letters or digits.
6	4(c)	Implementation of Calculator using LEX and YACC
7	5	Convert the BNF rules into Yacc form and write code to generate Abstract Syntax Tree.
8	5	Convert the BNF rules into Yacc form and write code to generate Abstract Syntax Tree.
9	6	Implement type checking
10	7	Implement control flow analysis and Data flow Analysis
11	8	Implement any one storage allocation strategies(Heap,Stack,Static)
12	8	Implement any one storage allocation strategies(Heap,Stack,Static)
13	9	Construction of DAG
14	10	To convert the back end of the compiler which takes the three address code and produces the 8086 assembly language instructions that can be assembled and run using a 8086 assembler. The target assembly instructions can be simple move, add, sub, jump. Also simple addressing modes are used.
15	11	Implementation of simple code optimization techniques (constant folding, etc.)
16	12	Implement Regular Expression to NFA using C
17	13	Program for computation of first
18	14	Program for computation of follow
19	15	Construction of predictive parser table using C
20	16	Generation of Three Address Code for a given expression

Prepared By: PAAVENDHAN PRABU, Assistant Professor

Approved By: Dr. G. Nanthakumar, HOD/CSE



ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

KOYILVENNI - 614 403.

An ISO Certified Institution-Accredited by NBA

CERTIFICATE

Certified that this is the Bonafide Record of the work done by

Selvan / Selvi VISHALI A

Reg. No. 820418104073

Sem. of VI year B.E. in CSE during the year 2017 - 2018.

COMPILER DESIGN LABORATORY

(Name of Laboratory Course With its code)

Signature of the Staff-in-Charge.

Dr. G. NANTHAKUMAR, ME., PhD.

UNIVERSITY REGISTER NUMBER: 820418104073

Submitted for the University Practical Examination held on 19.4.18

External Examiner

Internal Examiner



INDEX

14	12	21.3.18	IMPLEMENTATION OF SIMPLE CODE OPTIMIZATION TECHINIQUE	75	10	
15	13	21.3.18	IMPLEMENTATION OF REGULAR EXPRESSION TO NFA	81	10	
16	14	21.3.18	PROGRAM FOR COMPUTATION OF FIRST	88	10	
17	15	21.3.18	PROGRAM FOR COMPUTATION OF FOLLOW	93	10	
18	16	21.3.18	CONSTRUCTION OF PREDICTIVE PARSER TABLE USING C	100	10	
19	17	21.3.18	GENRATION OF THREE ADDRESS CODE A GIVEN EXPRESSION	112	10	

Soft Skill and technical training from TCS through TCS Youth Employment Program



hod cse <hodcse@aamec.edu.in>

Fwd: [WARNING: MESSAGE ENCRYPTED]Welcome AAMEC Kovilvenni - TCS CSR YEP -FY 23

1 message

placement officer <placement@aamec.edu.in> 21 May 2022 at 03:56
To: hod cse <hodcse@aamec.edu.in>

---------- Forwarded message ---------
From: MANJULA DEVI N <manjuladevi.n@tcs.com>
Date: Tue, Feb 15, 2022 at 9:02 PM
Subject: [WARNING: MESSAGE ENCRYPTED]Welcome AAMEC Kovilvenni - TCS CSR YEP -FY 23
To: placement officer <placement@aamec.edu.in>
Cc: Victor Pravin Kumar <victor.pravinkumar@tcs.com>, Mansava Rama Krishna Teja <m.ramakrishnateja@tcs.com>, KARTHIKEYAN THANGARAJ <karthikeyan.thangaraj@tcs.com>

Dear NandhaKumar,

Wish to inform that Anjalai Ammal Mahalingam Engineering College Kovilvenni has been onboarded for TCS YEP FY 23.

Based on the eligibility criteria ,115 students has been shortlisted & details of the students is attached . The file is password protected. PWD is shared in the next mail.

Kindly fill the date and time to conduct YEP weekly session in the attached template.

Do let me know for any further assistance.

Regards

Manjula Devi
Corporate Social Responsibility - Affirmative Action
Branch Lead - TCS CSR Chennai
M/sTata Consultancy Services Limited,
India
Cell- 7358192997

Third year CSE students have been selected from our college for training program.

DATE	SESSION TOPIC	TRAINEE (Batch I)	TRAINEE (Batch II)
19/02/22	Self Introduction	Neyaa Anand	Neyaa Anand
05/03/22	Self Introduction	Jeyanthi Murthi	Sasivarnan Palanivel Shanmuga Priya
12/03/22	Business Communication Skills(Grammar)	Jeyanthi Murthi Tejaswi	Sasivarnan Palanivel Lakshmanan Kupireddi
19/03/22	Business Communication Skills(Grammar)	Jeyanthi Murthi Tejaswi	Sasivarnan Palanivel Lakshmanan Kupireddi
26/03/22	Numerical Ability and Reasoning (Divisibility Rule, LCM,HCF)	Shanmuga Priya Alisha	Shanmuga Priya Alisha
12/03/22	Business Communication Skills(Grammar)	Jeyanthi Murthi Tejaswi	Sasivarnan Palanivel Lakshmanan Kupireddi
02/04/22	Numerical Ability and Reasoning(Ratio, Proportion & Percentage)	Jeyanti Murthi Barath Kumar	Sasivarnan Palanivel Alisha
09/04/22	Numerical Ability and Reasoning(profit & Loss, Relations)	Jeyanthi MurthiMegha V	Lakshmanan Kupireddi Venkata E
30/04/22	Reasoning ability: Clock, Directions, Cube and dice	Kasthuribai T Venkata E Jeyanthi Murthi	Kasthuribhai T Venkata E Jeyanthi Murthi
07/05/22	Programming Language	Jayanthi \Murthi V.Mega Kirti Kalivarapu	Jayanthi Murthi V.MeghaKirti Kalivarapu

Training program in virtual mode



Technical Club Activities

TECHFEST-2023 includes various events like:

- Aptitude
- Programming Contest
- Debate
- Photography
- Web Designing

KSHATRIYAH'22- A National Level Technical Symposium



WEBFROLIC contest attended by Participants

The department organizes a national level technical symposium namely KSHATRIYAH every year and it is totally organized and managed by our students. This gives opportunities for our students to exhibit their latent talents and leadership qualities. As a maiden attempt, in the year 2021, the symposium was conducted through online using the software developed by our students.

"Knowledge is power. Information is power. The secreting or hoarding of knowledge or information may be an act of tyranny camouflaged as humility."--by Robin Morgan

The event started with the formal Inaugural function at 10.00 A.M in P.G Conference Hall, CSE department with the Dr.S.N.RAMASWAMY, Principal AAMEC, Prof Dr.K.VELMURUGAN, HoD- CSE, Prof Dr.G.NANTHAKUMAR, Training and Placement OFFICER, Dr.MOHAN, HOD-IT, Dr.ABBASALI, HOD-MCA, ANUARIVAZHAGAN,(alumna)IT Specialist, Toronto Dominion Bank, Canada as a Chief Guest.

Symposium Brochure 2022



Prize Distribution

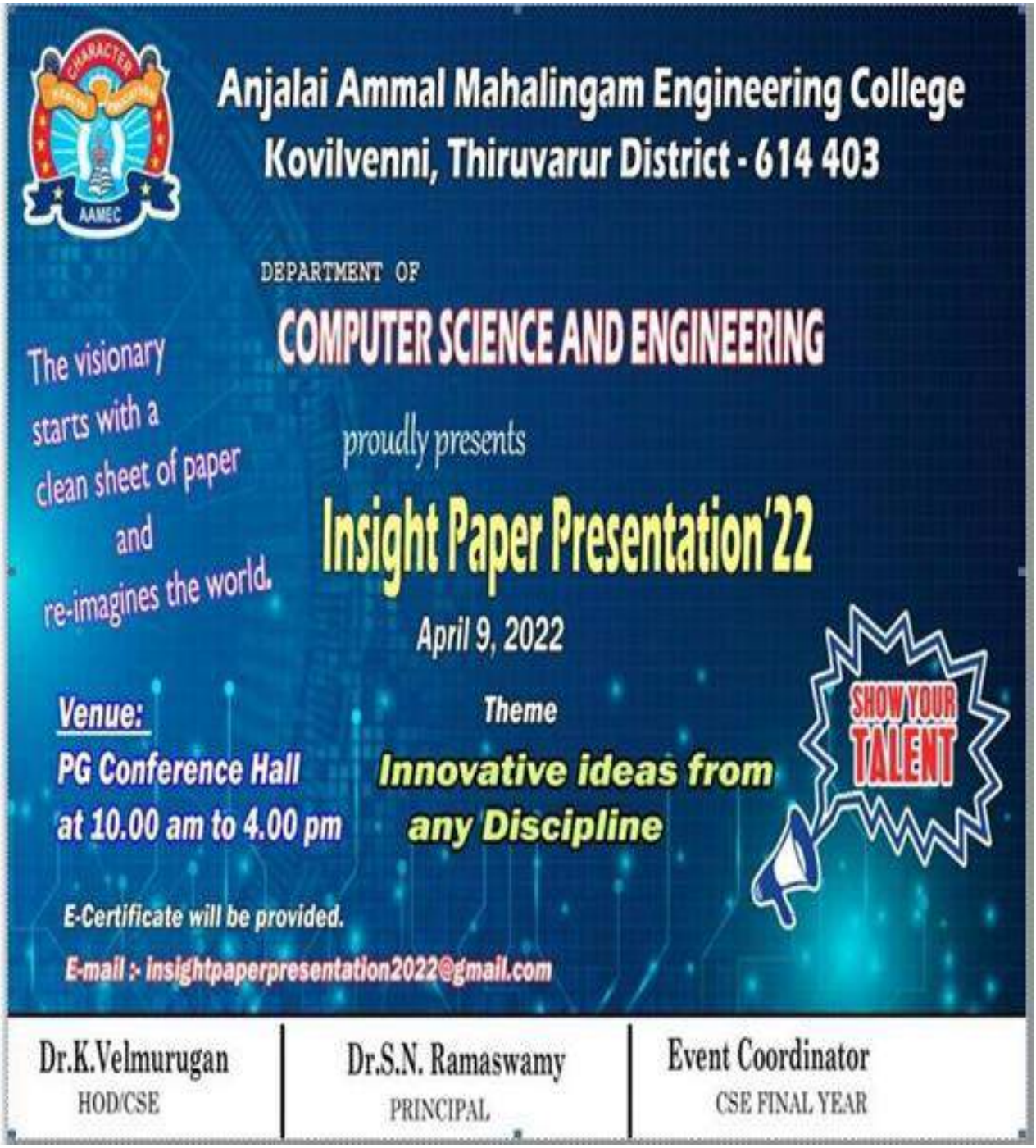




Symposium organizers conducting Online events

The students from various colleges like IIT KANPUR, SANSKRITHI SCHOOL OF ENGINEERING, ANDRA PRADESH, nearly 145 students from 45 different colleges participated in events such as paper presentation, Web Designing and Programming contest.

Paper Presentation Conducted by CSE Association



Technical Event-2022

The students of CSE, AAMEC Engineering College, under the guidance of Professor Dr.K.Velmurugan- HOD/CSE, readily took up the initiative to organize the Technical Paper Presentation event, on the 9th of April,2022. This event showcased the very essence of unbridled technical know-how of the participants.



TECHFEST-2022- Technical Event conducted by CSE association

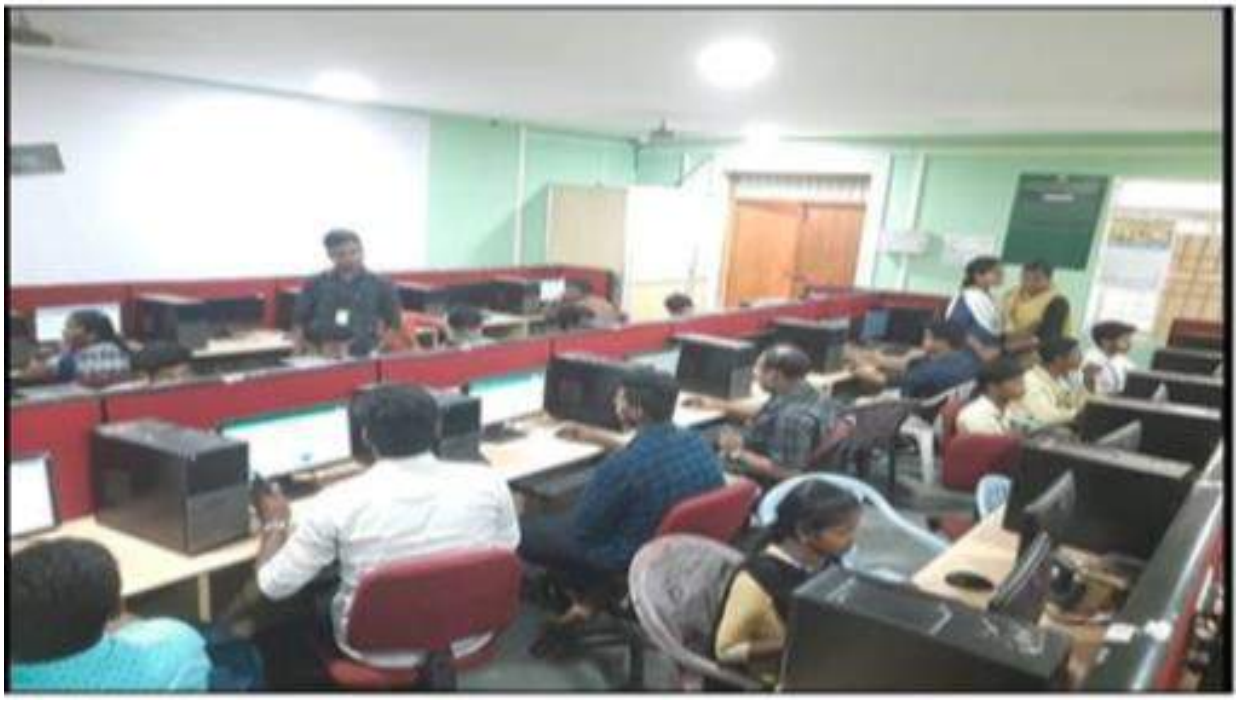
The motive of this event is to develop various skills of students in Co-Curricular activities and to exposethem to the current trends in the technical and professional fields.

TECHFEST-2022 includes various events like:

- Aptitude
- Programming Contest
- Debate
- Photography

- Web Designing
- Pencil Art

Hackathon 22:





Glimpses of Hackathon 22 Event organized by CSE Association

Workshop / Seminar / Guest Lecture

Sl.NO	ACADEMICYEAR	DATE	ACTIVITY/ PROGRAMME	RESOURCE PERSON/CONCERN	PARTICIPANTS
1.	2023-2024	24.02.2024	CSI Student Chapter	R Studio	III Year CSE
2.		28.12.2023	Placement training	Training on IT/Software Java Training and placement opportunity	III Year CSE
3.		27.09.2023	NDLI	Deep Learning Application in IOMT	III Year CSE
4.		16.08.2023	CSI Student Chapter	Block Chain Technology	III Year CSE
5.		03.05.2023	NDLI Webinar	Introduction To Deep Learning	III Year CSE
6.		24.04.2023	Workshop	Emerging career opportunities in IT and Non-IT fields: How to identify the right path for you:	III Year CSE
7.		24.04.2023	Guest lecture	Time Management and Career Counseling	III Year CSE
1.	2022-2023	11.04.23	Need of artificial intelligence in image processing	Mr.Varatharajan NorwegenUniversity of Squera and Technology	III Year
2.		29.10.22	Modelio & Capella	Mr.Arunkumar,Scientist,Drdo	III Year CSE
3.		25.09.22	Guest Lecture On Block Chain	Dr.Nikil Varma,Algobhrath Foundation,United Kingdom	III Year CSE
4.		03.09.22	Workshop On Object IOT	Muthukumaran Reddy, Software Engineer,Hcl Singapore	III Year
5.		27.08.22	Guest Lecture On Expectations VsReality	Mr.S.Thiayagarajan, Lead,DataAnalyst, Anz Bank ,Australia	II,III & IV Year
6.		27.08.22	Gate Awareness Program	Gate Academy	III,II & IV Year
7.		04.06.22	Workswhop OnPython Programming	Karthikeyan Thyagartajan,Consultan,Tcs	II Year
1.	2021-2022	30.04.22	Transformation Of Technologies	Manisankar,Tcs,Chennai,System Engineer	III Year
2.		26.03.22	How To DevelopProgramming Skills	S.Saroj Sundara Priyanga Senior FullStack Developer,Verizon Data Services Pvt Ltd India,	II Year

3.		25.03.22	Need Of Soft skill To Lift EngineeringPersonality	K.Natesanathan, Senior SoftwareEngineer , IVTL Infoview Technologies	II Year
4.		24.03.22	Workshop On Cloud Environment	Muthukumaran, Software Developer LogrithaTechnologies	IV Year
5.		11.12.21	Guest Lecture on "How to develop agood communication skills for software Industries"	R.SRIGOWRI, QA AutomationEngineer, Purchasing Power	II year
6.		03.12.21	Guest Lectureon Insight into Stock Market	JEROME, Sr.Software Engineer,Intercontinental Exchange, Newyork exchange, California	III year & Final Year
7.		01.12.21	Guest Lecture Recent Trends inTechnologies	P.BALASUBRAMANIAN, Manager, System Software Testing, Emerson Automation solution, Goteborg, Sweden	II year
8.		15.09.21	UI/IX Design	R.SOWRABI, Senior System Engineer, Infosys, Bangalore	III year
9.		20.11.21	MotivationalSpeech	ANU ARIVAZHAGAN ,(alumna)IT Specialist, Toronto Dominion Bank, Canada	II ,III and IV Year
10.		13.11.21	Workshop onEnterprise Application Development	VIGNESWARAN B.E, Senior Software Engineer, Trimble Technologies	II & III YEAR
11.		23/10/21	Guest Lecture Software Development Trends In 2021	Ms. KAVIYA Shanmugam,software Developer, Wiprotechnologies	III Year
1	**2020-2021**	20.03.21	A guest lecture on 'Industry Expectations fromGraduate'	A.V.Vigneshwaren(Alumnus) System Engineer, TCS	III Year
2		05.03.21	Alumnus motivational lecture inspired students onindustry.	Thamizhoviyam R(TCS)Sowrabhi R(INFOSYS) BATCH: 2015-2019	II YEAR
3	**2020 - 2021**	23.1.21	Webinar on "what isUI/UX?"	G.Pradeep CSE Alumini Technical consultantproficient, Chennai	II,III & IVYear
4		23.1.21	Workshop on"Web development"	S.Muthukumaran,CSEAlumini, Logritha,Chennai	II,III & IVYear
1	**2019-2020**	27.07.22	5 Day on-line Workshops on "Incorporating Universal HumanValues in Education"	Ranjani ParthasarathiUHV Coordinator Anna University, Chennai	Students And Staffs

2		27.07.22	Webinar on "Discover the newtrends in storytelling"	NIIT Tanjore	CSE Faculties
3		21.11.20 to 22.11.20	Online Training program on PYTHON language	AAMEC	Final Year Students
4		13.07.20	Seminar on Python Programming andData Science	Dr ManjulaProfessor School of Computer Science SASTRA University Thanjavur	CSE and IT Students
5.	**2018-2019**	07.03.19	Guest Lecture on "Design and analysisof algorithms"	Dr.V.P.Ramesh, Assistant professor, Central university, Tiruvarur	II CSE
6		10.07.18 to 16.07.18	Soft skill training	Seventh Sense TalentSolutions ,Chennai	IV CSE
7		17.07.18 to 18.07.18	Soft skill training	Seventh Sense TalentSolutions ,Chennai	III CSE
1.		26.07.18	Inauguration of " "CSE Association for2017" Guest lecture on "Cryptography and network security"	Dr.D.Loganathan, Ph.D ,Professor, Department of CSE Pondicherry	II,III & IVYear
2.		01.09.18	One day National level Technical Symposium "KSHATRIYAH'18"	Mr. Milan Bangoria,RPA Uipath Developer/Consultant, L&TInfoTech, Bangalore.	II,III & IVYear
1.	**2017-2018**	20.03.18 to 25.03.18	Soft skill training	Seventh Sense Talent Solutions,Chennai	IV CSE
2		3.03.18	Carrier DevelopmentTraining	1.Mr.Sivachadran(BussinessAnalyst,Mac Zenith-Chennai) 2.ArunRaj(Account Manager,Xerago-Chennai) 3.Mr.Jeyanthan(Branch Head,Macro Zenith-Chennai) 4.Mr.Hari(Developer,MacroZenith-Chennai)	IV CSE
3		23.02.18	Defense AwarenessProgram	Mr.Ragupathi,Galaxy force foundation,Thanjavur	II CSE III CSE
4		3.02.18	Workshop on "Cloud Computing"	R.vaithiyanathan, Technology Consultant,HPE,Chennai	IV CSE
5		3.02.18	Inaguration of CSIAssociation & Guest Lecture on "Internet of Things"	Dr.K.Vivekanandan Dean and Professor, PEC,Pondy	II,III & IVYear

6		2.02.18 & 3.02.18	LEARNATHAN2018 (Student Championship 2018)	ICT Academy	IV CSE
7		01.02.18	Webinar on "Deeplearning and Machine Learning using Phython"	Placement Corner,Monfox.com	IV CSE
8		31.01.18	Guest Lecture on "Opportunities in Public Sectors"	Mr.Josephraj, HR Manager , ONGC, Karaikal	IV CSE
9		30.01.18	Learnathan Pretalk	ICT Academy	IV CSE

Action taken for gap analysis and relevance to PO for the academic year 2022-23

Sl.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1.	Gap2	Need of artificial intelligence in imageprocessing	11/04/23	Mr.Varatharajan NorwegenUniversity of Squera and Technology Norway	74	PO3, PO5, PO11,PO12, PSO3
2.	Gap2	Modelio & Capella	29/10/22	Mr.Arunkumar,Scientist, DRDO, Chennai	74	PO3, PO5, PO11,PO12, PSO3
3.	Gap 1	Block Chain	25/09/22	Dr.Nikil Varma,Algobhrath Foundation, United Kingdom	74	PO3, PO5, PO12, PSO3
4.	Gap 2	ObjectIOT	03/09/22	Muthukumaran Reddy, SoftwareEngineer,Hcl Singapore	77	PO3, PO5, PO11,PO12, PSO3
5.	Gap 2	Expectations Vs Reality	27/08/22	Mr.S.Thiayagarajan,Lead,Data Analyst,Anz Bank ,Australia	97	PO3, PO5, PO11,PO12, PSO3
6.	Gap 3	Gate Awareness Program	27/08/22	Gate Academy	97	PO2
7.	Gap 1 & Gap2	Python Programming	04/06/22	Karthikeyan Thyagartajan, Consultan,TCS	88	PO3, PO5, PO11, PO12, PSO3

Action taken for gap analysis and relevance to PO for the academic year 2021-22

Sl. No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance toPOs, PSOs
1	Gap 2	Transformation OfTechnologies	30/04/22	Manisankar, SystemEngineer, TCS,Chennai,	68	PO3, PO5, PO11,PO12,PSO3
2	Gap 3	How To Develop Programming Skills	26/03/22	S.Saroj Sundara Priyanga Senior Full Stack Engineer, Verizon Data	87	PO2

3	Gap 3	Need Of Softskill To Lift Engineering Personality	25/03/22	K.Natesanathan, Senior SoftwareEngineer IVTL Infoview Technologies,	86	PO2
4	Gap 1	Cloud Environment	24/03/22	Muthukumaran, Software Developer Logritha Technologies,	71	PO3, PO5, PO12, PSO3

Action taken for gap analysis and relevance to PO for the academic year 2020-21

S. No	Gap	Action Taken	Date-Month- Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Gap2	UI/UX	23/01/2021	G.Pradeep Technical Consultantproficient, Chennai	98	PO3, PO5, PO11,PO12, PSO3
2	Gap 2	Web development	23/01/2021	S.Muthukumaran, Engineer, Logritha, Chennai	94	PO3, PO5, PO11,PO12, PSO3
3	Gap 1	Training program on programming languages	15/02/2021	S,Farjana Farvin, AP/CSE, AAMEC	98	PO3, PO5, PO12, PSO3
4	Gap 1 & Gap 3	Programming logic, Quantitative and verbalability	18/01/2021	S.Balasubramanian, AP/Maths	95	PO2, PO12,PSO3
5	Gap 1	Python Programming	11/06/2020	S.Kalidas Founder and Director Ifand for Endeavours, Chennai	95	PO3, PO5,PSO3
6	Gap 3	Aptitude Training	21/12/2020	Mr.N.Vijayakrishnan, AP/Maths,AAMEC	80	PO2

Action taken for gap analysis and relevance to PO for the academic year 2019-20

S. No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Gap 3	Training on Verbal, Quantitativeand soft Skill	05/02/2020	Mr.Rajeev swamy, Business head,Seventh Sense Talents Solution ,Bangalore	92	PO2, PO9,PO10
2	Gap 3	Skill development Forum	28/01/2020	Mr.Muthukumar, CAD Macro, Chennai	91	PO12
3	Gap 3	Online Assessment Test for softskills	10/01/2020	Mr.Rajeev swamy, Business head,Seventh Sense Talents Solution ,Bangalore	95	PO12
4	Gap 2	Training	04/01/2020	Mr.Silambarasan, VURAM	97	PO12

		programme on VURAM Enables		Technologies, Chennai		
5	Gap 2	Digital Transformation (IOT, Cloud computing, Big dataAnalysis)	21/11/2019	Mr.Rajesh, NIIT, Thanjavur	90	PO3, PO5, PO6, PSO3
6	Gap 1	Training On Java	10/10/2019	Mr.R.LAKSHMANAN, Director,iTech Technologies, Thanjavur	95	PO3, PSO3
7	Gap 1	Awareness on Latest Technologies and its Job Opportunities in Industry 4.0	13/07/2019	Mr.Prasanna Balakrishnan - Project Lead cum Associate Manager, Chennai	90	PO6, PO8
8	Gap 2	TCS NQT practice	11/07/2019	S.Farjana Farvin, AP/CSE,AAMEC	94	PO2,PO12
9	Gap 3	Online assessment for soft skills	10/07/2019	Mr.Vasantha Kumar, Sr. TerritoryManager Hiremee, Salem	95	PO12
10	Gap 1	Full stack developer	06/07/2019	Er.S.Kalidoss, ifandforendevours,Chennai	94	PO5,PO11, PSO2,PSO3
11	Gap 1 & Gap 3	Programming in C and Englishusage	17/06/2019	S.Farjana Farvin, AP/CSE,AAMEC	95	PO1,PO10

Action taken for gap analysis and relevance to PO for the academic year 2018-19

S. No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Gap 1	Design and analysis of algorithms	07/03/2019	Dr.V.P.Ramesh, Assistant ProfessorCentral university Tiruvarur	98	PO4,PSO1
2	Gap 1	Training programme on programming languages	04/01/2019	Mr.R. Lakshmanan, Director, iTechTechnologies, Thanjavur	94	PO3, PO5, PO12, PSO3
3	Gap 1 & Gap 2	Java training and career development	03/01/2019	Mr.R. Lakshmanan, Director, iTechTechnologies, Thanjavur	93	PO3, PO12
4	Gap 2	Virtual drive	28/07/2018	Mr.Rajeev swamy, Business head,Seventh Sense Talents Solution ,Bangalore	95	PO1

5	Gap 3	Soft skill training	17/07/2018	Mr.Rajeev swamy, Business head,Seventh Sense Talents Solution ,Bangalore	94	PO12
6	Gap 3	Soft skill training (Communication)	13/07/2018	Mr.Rajeev swamy, Business head,Seventh Sense Talents Solution ,Bangalore	94	PO12
7	Gap 2	Cryptography and network security (Security tools)	26/07/2018	Dr.D.Loganathan, Ph.D Professor,Department of CSE Pondicherry	98	PO5,PO12,PSO3
8	Gap 2	Industry HR practices	07/07/2018	Mr.M.Joseph, HR/ONGC, Karikal	95	PO6,PO8

2.2 Teaching - Learning Processes (100)

Describe processes followed to improve quality of Teaching & Learning (25)

Teaching-Learning Process (TLP)

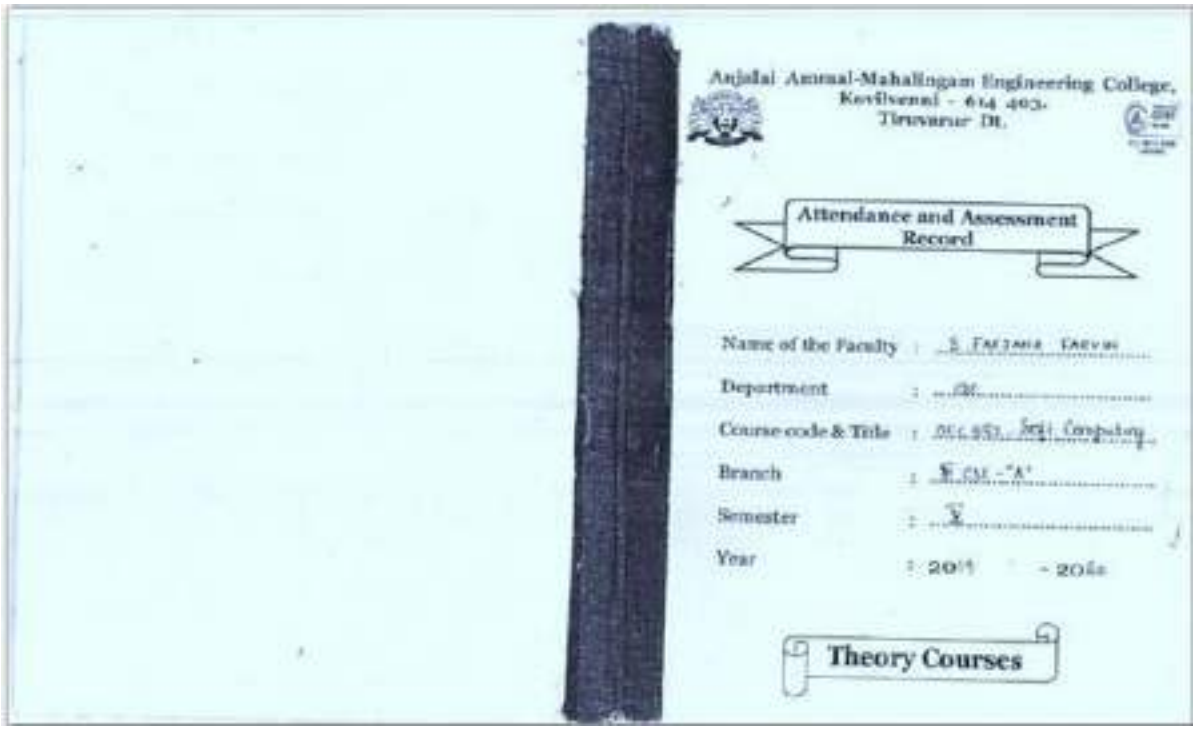
The Computer Science and Engineering department strongly believes that students oriented teaching learning process is very much essential to ensure quality of technical education. The set of activities taken by the department to improve the quality of TLP as follows

- The department calendar of events is prepared well in advance before the start of the semester, based on thecollege calendar of events in accordance with the Anna University academic schedule.
- It consists of the activities planned for the semester which includes academic activities Guest Lectures, internal assessment test dates, schedule of departmental events and government holidays.
- Courses allotment process: Faculty members are asked to give three choices based on their priority to handle the course in the particular semester. In the faculty meeting organized by the HoD, based on priority to the Junior faculty members and with the consensus of all the faculty members, course allotment process is completed.
- Courses are assigned well in advance, so that faculty members can prepare course plan and hard / soft copies of lecture notes.

The course file for theory courses consist of:

- Course end report for the same subject in the previous year.
- Syllabus Plan
- Question bank
- Anna university previous Question papers Assignment Questions with sample assignments
- Internal Assessment Test question paper with scheme of evaluation Sample answer sheets
- CO attainment internal assessment test
- Course end report
- Attendance and assessment record

Sample Attendance and Assessment Record - Theory - OEC552 - Soft Computing

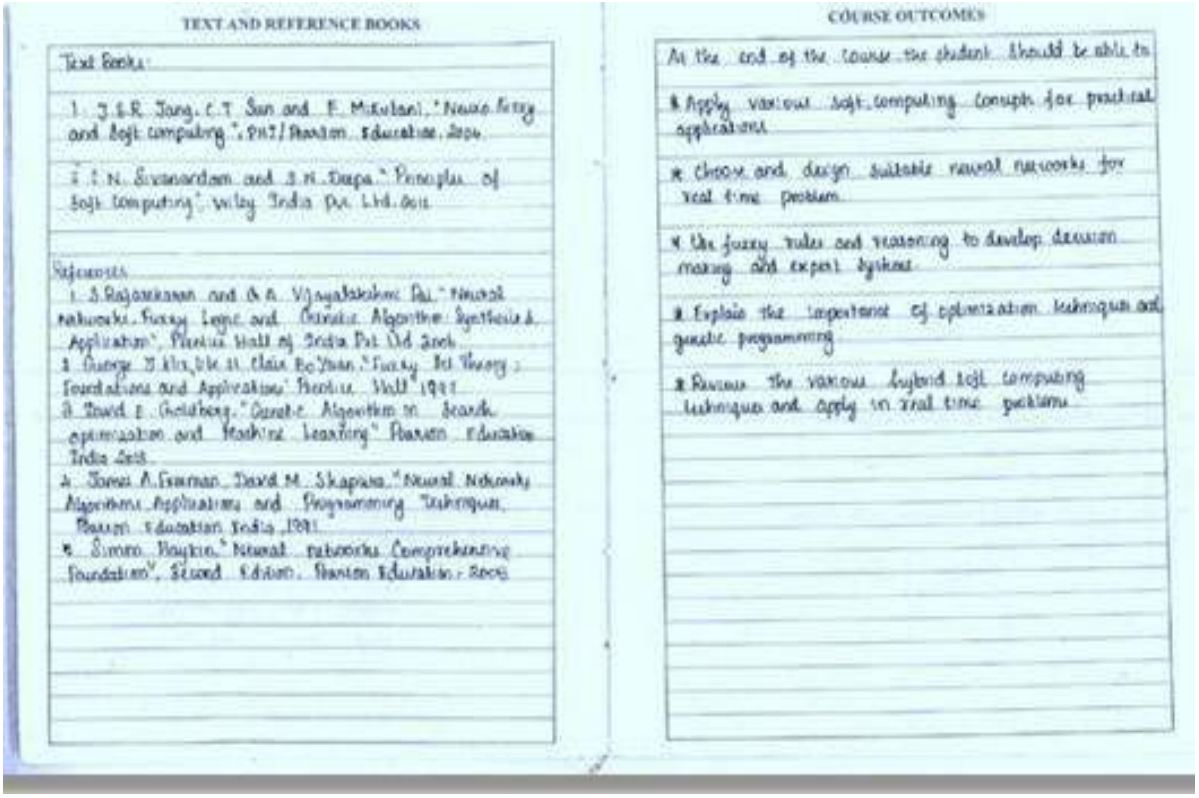


Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni - 614 403.
Thiruvarur Dt.

Attendance and Assessment Record

Name of the Faculty : S. Fatima Emerald
Department : CSE
Course code & Title : OEC552 Soft Computing
Branch : V CSE - "A"
Semester : V
Year : 2019 - 2020

Theory Courses



TEXT AND REFERENCE BOOKS

Text Books:

1. J.S.R. Jang, C.T. Sun and E. Mizutani, "Neuro fuzzy and Soft computing", PHI/Pearson Education, 2004.
2. S.N. Sivanandam and S.N. Deepa, "Principles of Soft computing", Wiley India Pvt. Ltd. 2011.

References:

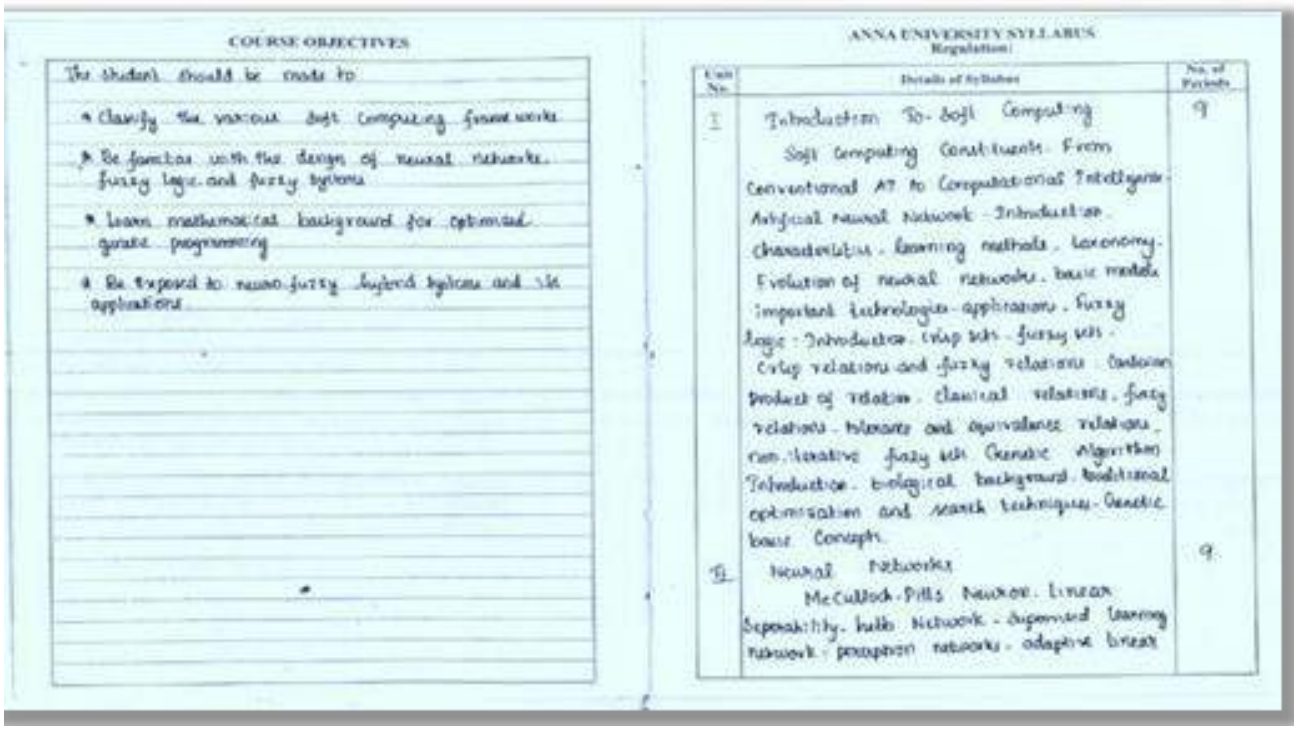
1. S. Rajasekaran and G.A. Vijayalakshmi Pai, "Neural networks, Fuzzy Logic and Genetic Algorithm: Synthesis & Applications", Prentice Hall of India Pvt Ltd 2006.
2. George J. Klir, Ute St. Clair, Bo Yuan, "Fuzzy Set Theory: Foundations and Applications" Prentice Hall 1997.
3. David E. Goldberg, "Genetic Algorithm in Search, optimization and Machine Learning" Pearson Education India 2013.
4. James A. Freeman, David M. Skapura, "Neural Networks Algorithms, Applications and Programming Techniques, Pearson Education India, 1991.
5. Simon Haykin, "Neural networks: Comprehensive foundation", Second Edition, Pearson Education, 2005.

COURSE OUTCOMES

At the end of the course, the student should be able to:

1. Apply various soft computing concepts for practical applications.
2. Choose and design suitable neural networks for real time problem.
3. Use fuzzy rules and reasoning to develop decision making and expert systems.
4. Explain the importance of optimization techniques and genetic programming.
5. Review the various hybrid soft computing techniques and apply in real time problems.

Sample Attendance and Assessment Record - Theory - OEC552 - Soft Computing



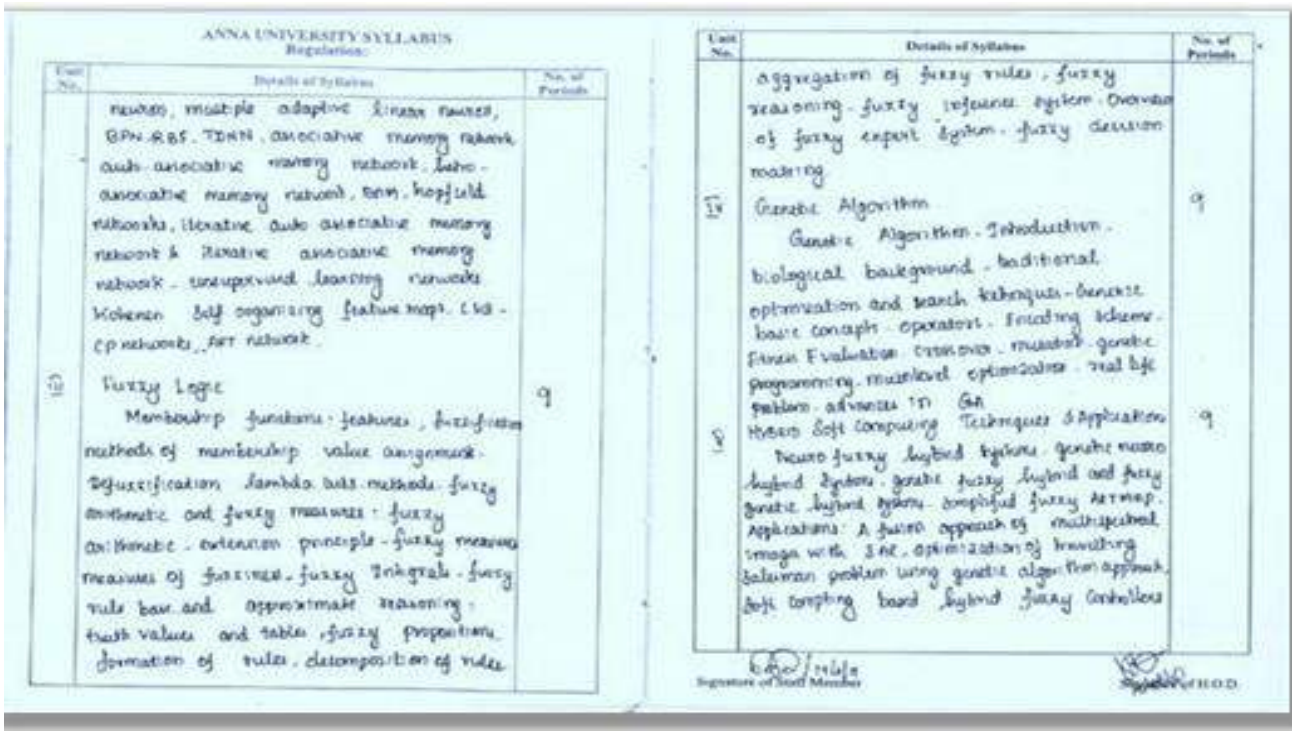
COURSE OBJECTIVES

The student should be made to

- Classify the various soft computing frameworks
- Be familiar with the design of neural networks, fuzzy logic and fuzzy systems
- Learn mathematical background for optimized genetic programming
- Be exposed to neuro-fuzzy hybrid systems and its applications

ANNA UNIVERSITY SYLLABUS
Regulation

Unit No.	Details of Syllabus	No. of Periods
I	Introduction To Soft Computing Soft computing Constituents From Conventional AI to Computational Intelligence - Artificial neural Network - Introduction, characteristics - learning methods, taxonomy - Evolution of neural networks, basic models, important technologies - applications - Fuzzy logic - Introduction, crisp sets - fuzzy sets - Crisp relations and fuzzy relations, Cartesian product of relation, classical relations, fuzzy relations - tolerance and equivalence relations, non-iterative fuzzy sets Genetic Algorithm Introduction, biological background, traditional optimization and search techniques - Genetic basic Concepts.	9
II	Neural Networks McCulloch-Pitts Neuron, Linear Separability, Hebb Network - Supervised learning network - perceptron networks - adaptive linear	9



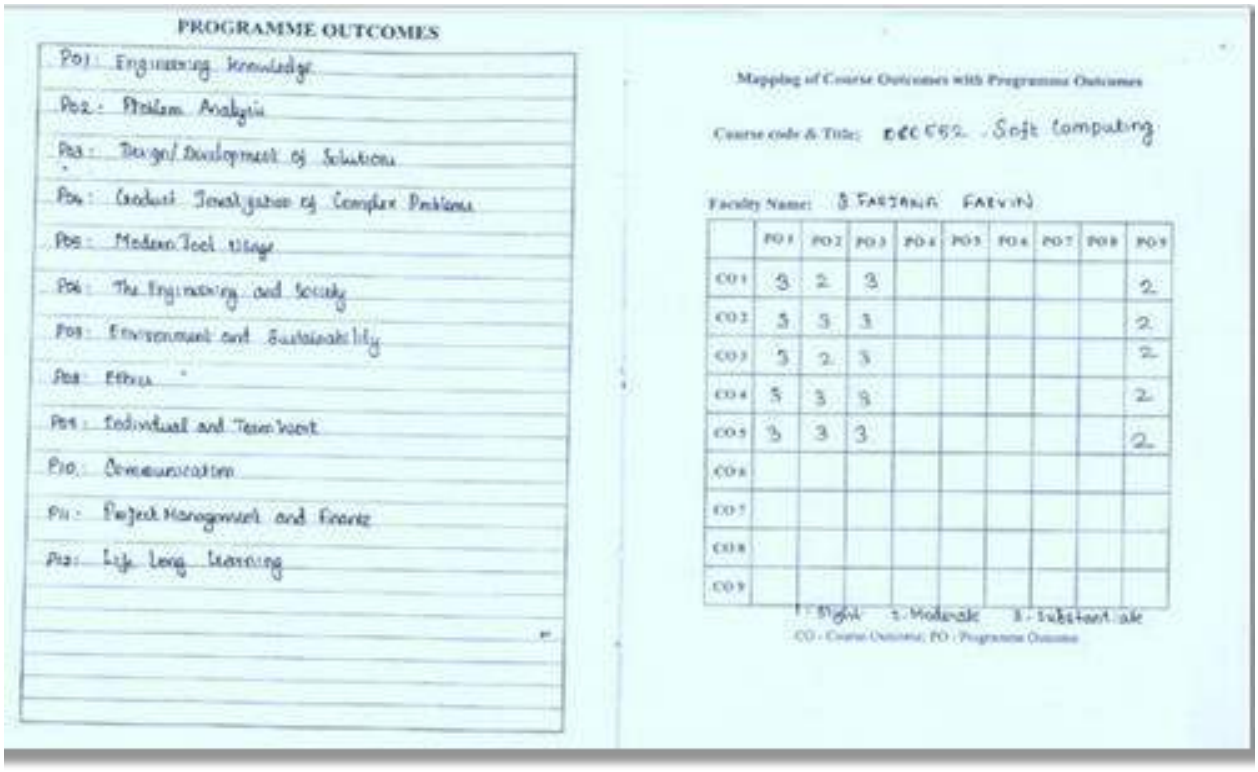
ANNA UNIVERSITY SYLLABUS
Regulation

Unit No.	Details of Syllabus	No. of Periods
	neurons, multiple adaptive linear neurons, BPN, RBF, TDNN, associative memory network, auto-associative memory network, hetero-associative memory network, BAM, hopfield networks, iterative auto-associative memory network & iterative associative memory network - unsupervised learning networks Kohonen Self organizing feature maps, LVQ - CP networks, ART network.	
III	Fuzzy Logic Membership functions - features, fuzzification methods of membership value assignments - Defuzzification, lambda cuts methods, fuzzy arithmetic and fuzzy measures - fuzzy arithmetic - extension principle - fuzzy measures, measures of fuzziness - fuzzy integrals - fuzzy rule base and approximate reasoning - truth values and tables, fuzzy propositions formation of rules, decomposition of rules, aggregation of fuzzy rules, fuzzy reasoning - fuzzy inference system - Overview of fuzzy expert system - fuzzy decision making	9
IV	Genetic Algorithm Genetic Algorithm - Introduction - biological background - traditional optimization and search techniques - Genetic basic concepts - operators - Encoding schemes - Fitness Evaluation - crossover - mutation - genetic programming - multilevel optimization - real life problem - advantages of GA Hybrid Soft Computing Techniques & Applications Neuro fuzzy hybrid systems - genetic neuro hybrid systems - genetic fuzzy hybrid and fuzzy genetic hybrid systems - simplified fuzzy ARTMAP - Applications: A fuzzy approach of multispectral image with SAR - optimization of travelling Salesman problem using genetic algorithm approach - Soft computing based hybrid fuzzy controllers	9

Signature of Staff Member

HOD

Sample Attendance and Assessment Record - Theory - OEC552 - Soft Computing



PROGRAMME OUTCOMES

PO1: Engineering knowledge
PO2: Problem Analysis
PO3: Design/Development of Solutions
PO4: Conduct Investigation of Complex Problems
PO5: Modern Tool Usage
PO6: The Engineer and Society
PO7: Environment and Sustainability
PO8: Ethics
PO9: Individual and Team Work
PO10: Communication
PO11: Project Management and Finance
PO12: Life Long Learning

Mapping of Course Outcomes with Programme Outcomes

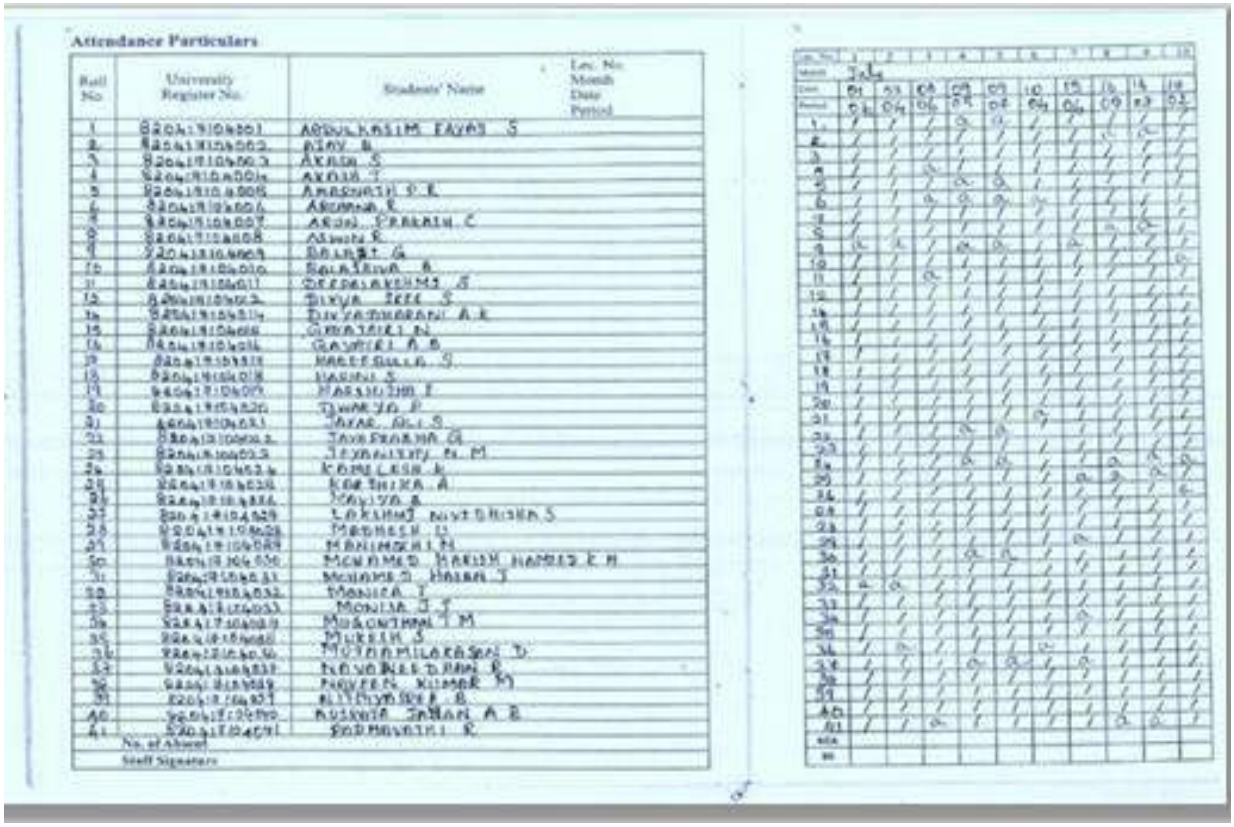
Course code & Title: OEC552 Soft Computing

Faculty Name: S FARZANA FARVIN

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	3						2
CO2	3	3	3						2
CO3	3	2	3						2
CO4	3	3	3						2
CO5	3	3	3						2
CO6									
CO7									
CO8									
CO9									

1 - Slight 2 - Moderate 3 - Substantial

CO - Course Outcome; PO - Programme Outcome



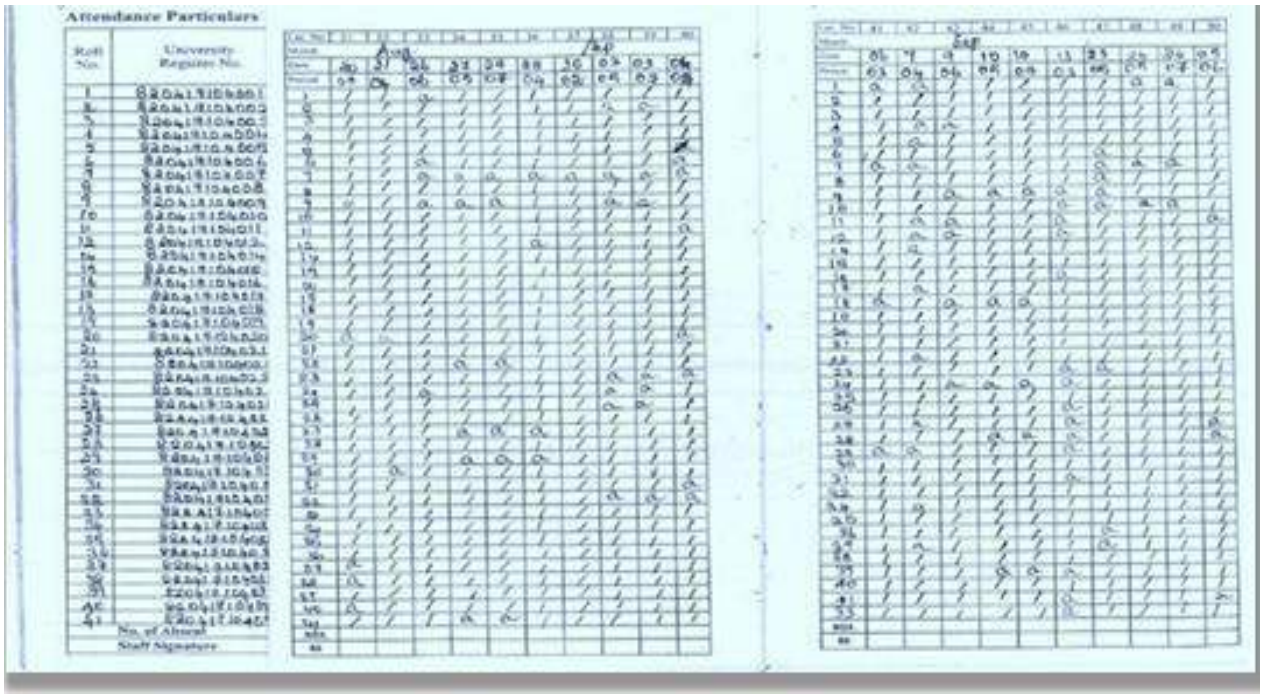
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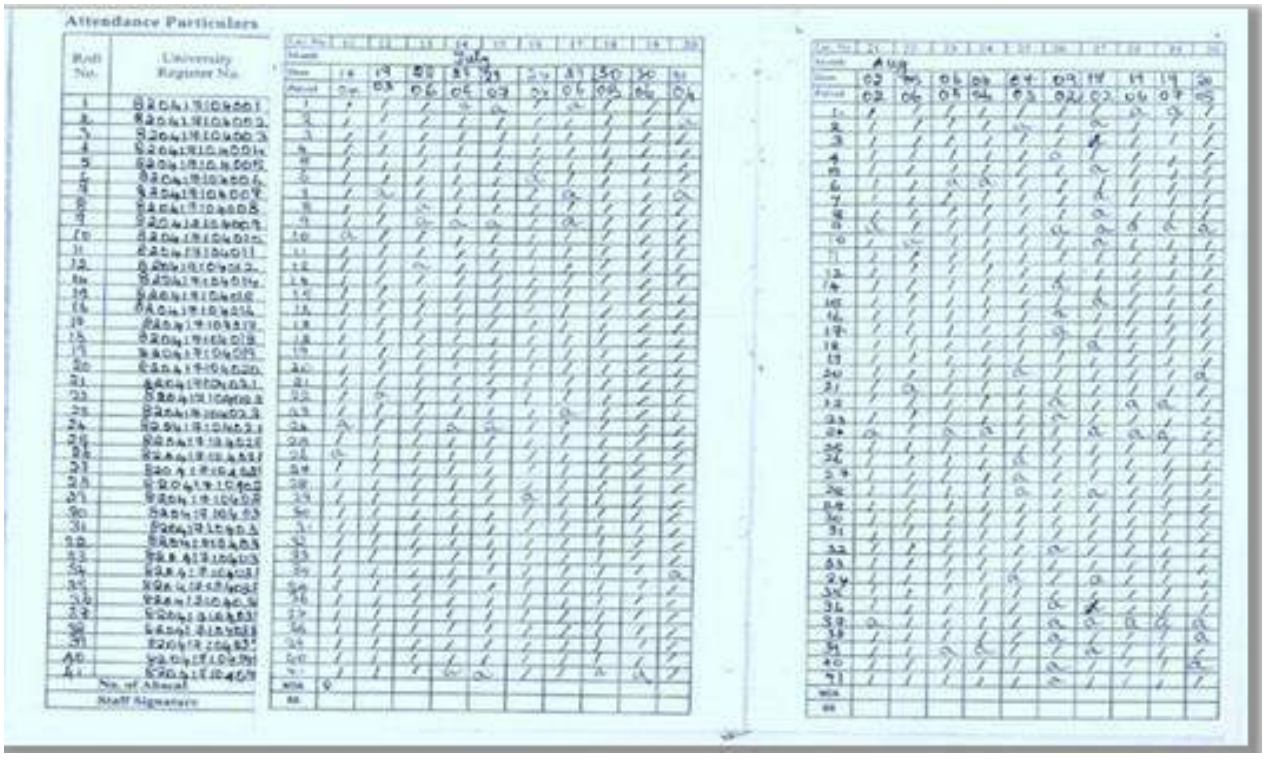
Roll No.	University Register No.	Students' Name
1	820419104001	ABDULKASIM FAVAS S
2	820419104002	AJAY K
3	820419104003	AKASH S
4	820419104004	AKASH T
5	820419104005	AMARNATH P K
6	820419104006	ARUNNA K
7	820419104007	ARUN PRABHU C
8	820419104008	Ashwin K
9	820419104009	BALAJI G
10	820419104010	BALAJINA B
11	820419104011	DEEPAKRISHNA S
12	820419104012	DIVYA JEFF S
13	820419104013	DIVYADHARANI A K
14	820419104014	GAYATRI N
15	820419104015	GAYATRI A K
16	820419104016	HARIPRASATH S
17	820419104017	HARINI S
18	820419104018	HARSHINI T
19	820419104019	JAYAVEL P
20	820419104020	JAYAR RAJ S
21	820419104021	JAYASRAVANA G
22	820419104022	JEYANTHI M
23	820419104023	KAMALESH K
24	820419104024	KARTHIKA A
25	820419104025	KAVIYA A
26	820419104026	LAKSHMI PRIYADHARSHINI S
27	820419104027	MADHESH U
28	820419104028	MARIMUTHU M
29	820419104029	MOHAMED HARISH HAMEED K M
30	820419104030	MOHAMED HASAN J
31	820419104031	MONICA T
32	820419104032	MONISA J F
33	820419104033	MUKUNTHAN T M
34	820419104034	MUKESH S
35	820419104035	MUTHAMILARASAN D
36	820419104036	NAVANEETHAN R
37	820419104037	PRAVEEN KUMAR M
38	820419104038	RAJIVGANDHI B
39	820419104039	RAJKUMAR JAWAHAR A B
40	820419104040	SUDHARSHINI K
41	820419104041	

No. of Absent

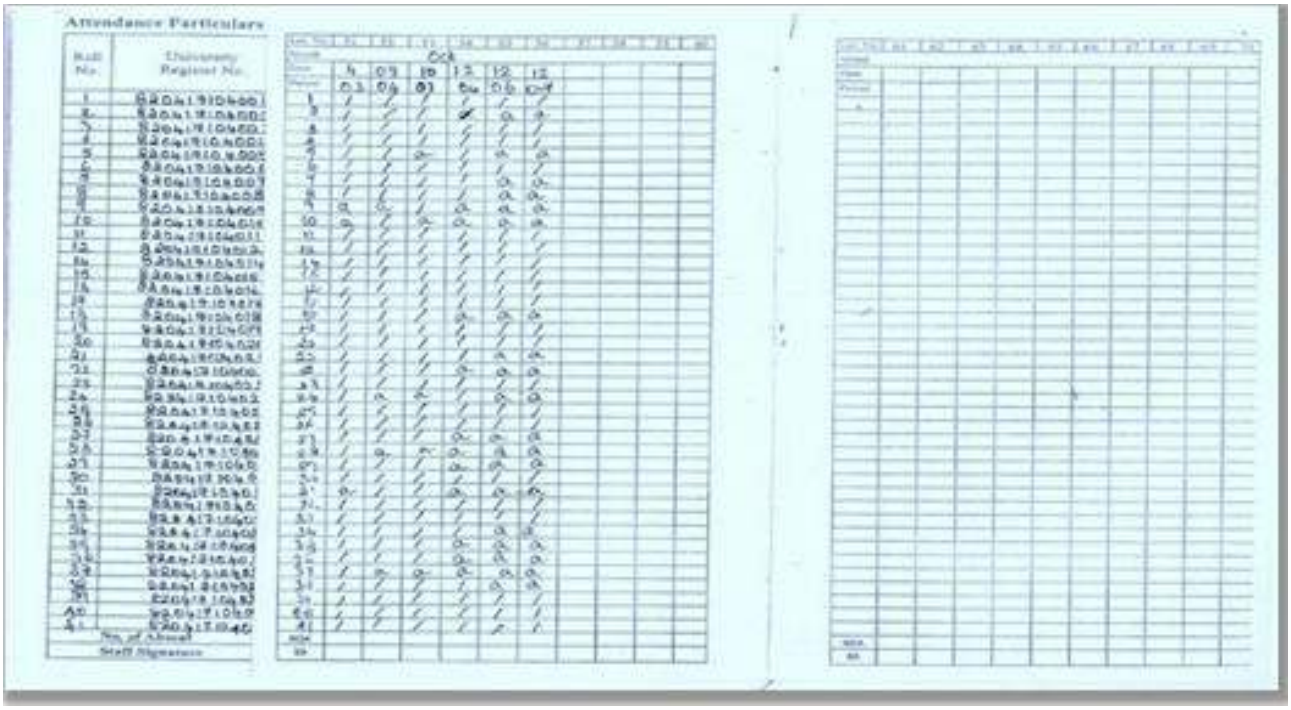
Staff Signature

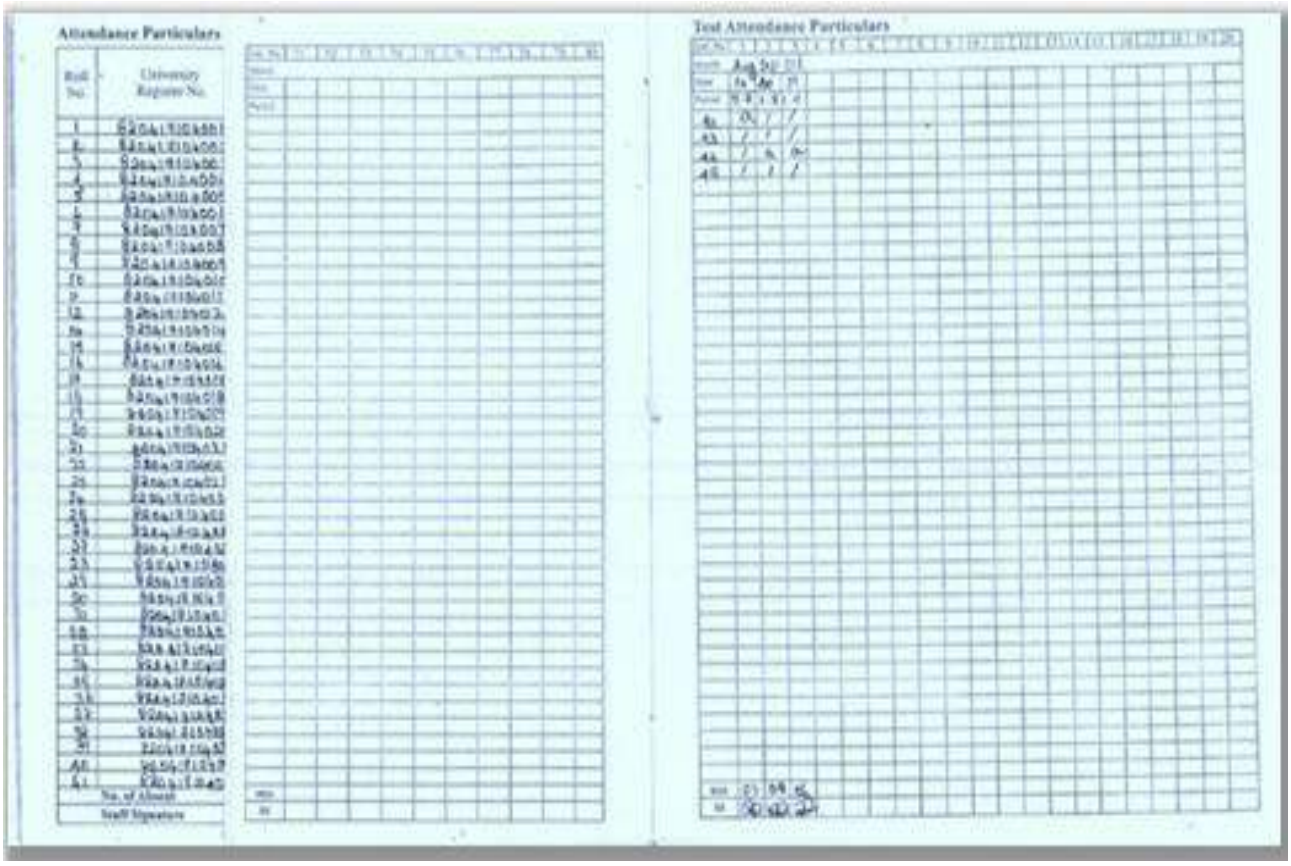
Sample Attendance and Assessment Record - Theory - OEC552 - Soft Computing



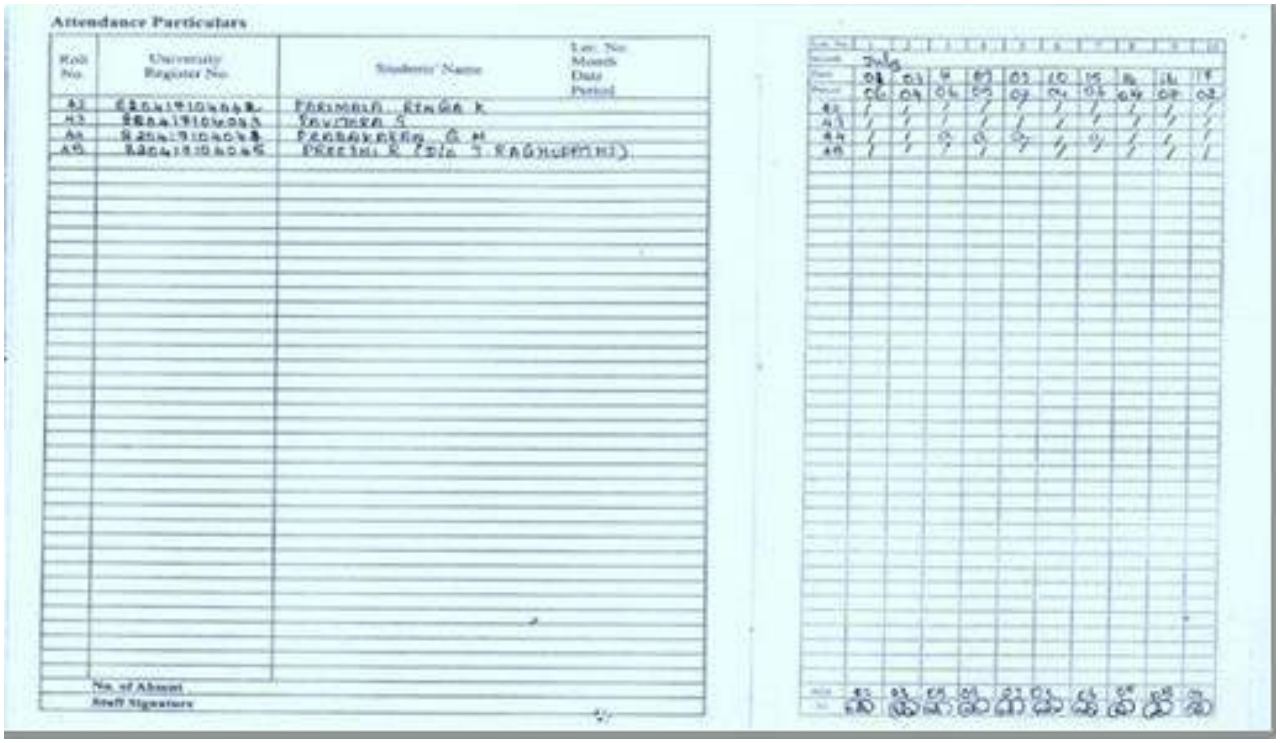


Sample Attendance and Assessment Record - Theory - OEC552 - Soft Computing





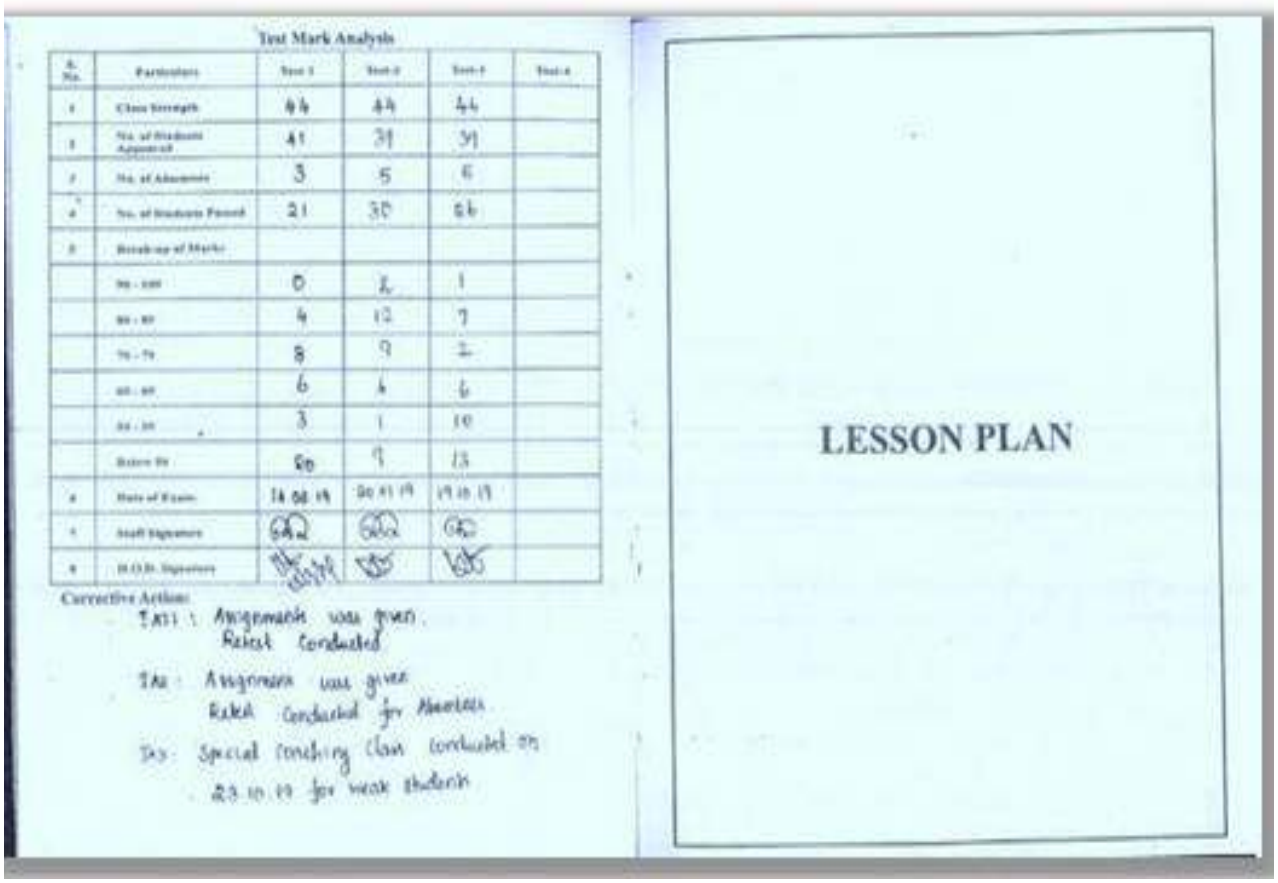
Sample Attendance and Assessment Record - Theory - OEC552 - Soft Computing



Attendance Particulars

Roll No.	University Register No.	Student Name	Lec. No. Month Date Period
A3	820419104044	PARIMALA RANGA K	
A5	820419104053	SAVITHA S	
A6	820419104054	PRABAKARAN G M	
A8	820419104056	PREETHI R (Plz T RAGHUPATHI)	

No. of Absent
Staff Signature



Test Mark Analysis

S. No.	Particulars	Test 1	Test 2	Test 3	Test 4
1	Class Strength	44	44	44	
2	No. of Students Appeared	41	39	38	
3	No. of Absentees	3	5	6	
4	No. of Students Passed	21	30	26	
5	Break up of Marks				
	90 - 100	0	2	1	
	80 - 89	4	12	7	
	70 - 79	8	9	2	
	60 - 69	6	6	6	
	50 - 59	3	1	10	
	Below 50	20	9	13	
6	Date of Exam	16.08.19	20.11.19	19.10.19	
7	Staff Signature				
8	H.O.D. Signature				

Corrective Action:

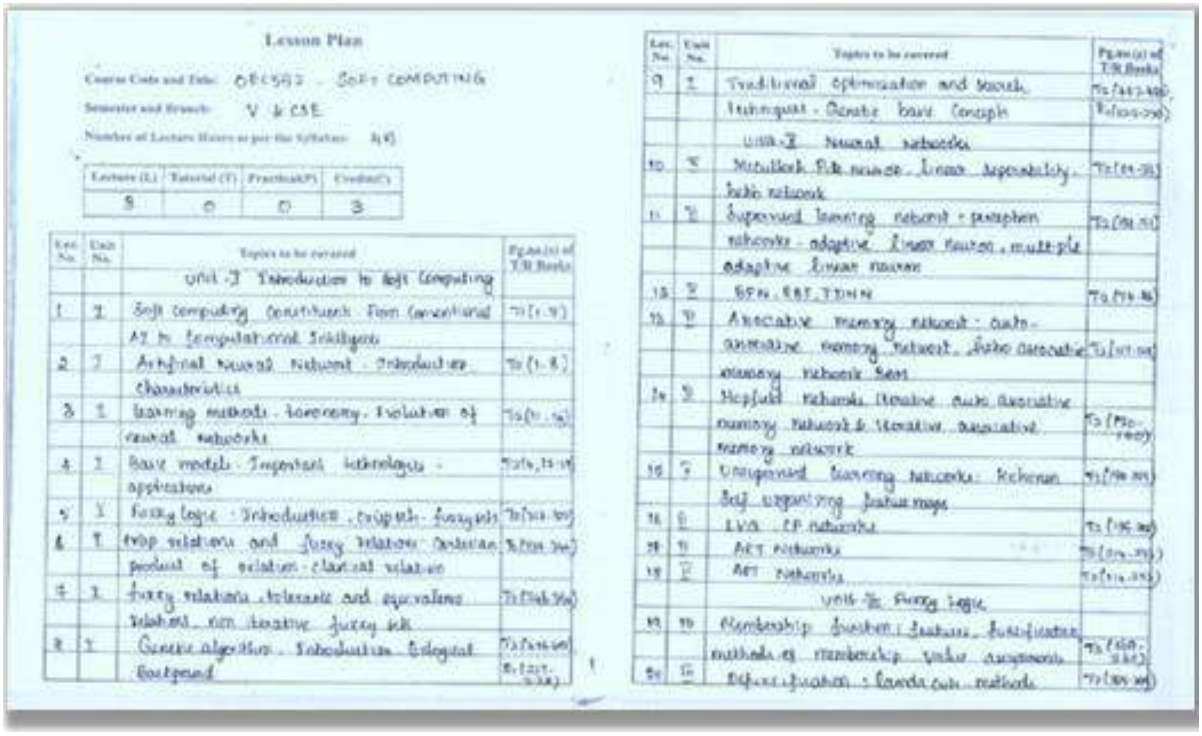
Test 1: Assignment was given. Retest conducted

Test 2: Assignment was given Retest conducted for Absentees

Test 3: Special coaching class conducted on 23.10.19 for weak students

LESSON PLAN

Sample Attendance and Assessment Record - Theory - OEC552 - Soft Computing



Lesson Plan

Course Code and Title: OEC552 - SOFT COMPUTING

Semester and Branch: V & CSE

Number of Lecture Hours as per the Syllabus: 45

Lecture (L)	Tutorial (T)	Practicals(P)	Credits(C)
3	0	0	3

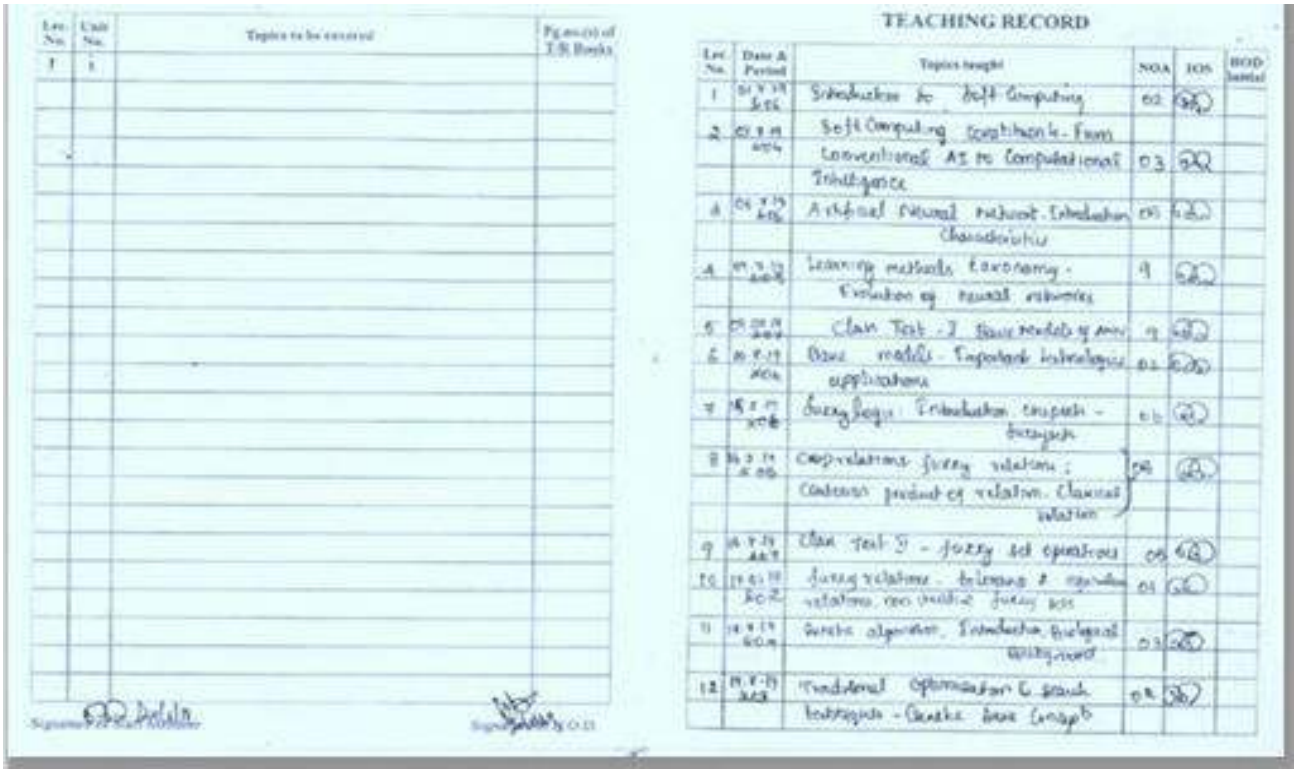
Lec. No.	Unit No.	Topics to be covered	Page(s) of T/R Books
		UNIT-I Introduction to Soft Computing	
1	I	Soft computing constituents, From conventional AI to computational Intelligent	T1(1-9)
2	I	Artificial neural network - Introduction characteristics	T1(1-8)
3	I	learning methods - taxonomy. Evolution of neural networks	T1(1-16)
4	I	Basic models - Important technologies - applications	T1(15,17-19)
5	I	Fuzzy logic - Introduction - crisp sets - fuzzy sets	T1(101-107)
6	I	crisp relations and fuzzy relations - cartesian product of relation - classical relations	T1(108-114)
7	I	fuzzy relations - tolerance and equivalence relations - non iterative fuzzy sets	T1(116-126)
8	I	Genetic algorithm - Introduction - Biological background	T1(Introduction) R1(127-133)

Lec. No.	Unit No.	Topics to be covered	Page(s) of T/R Books
9	I	Traditional optimization and search techniques - Genetic basic concepts	T1(443-448) R1(265-268)
		UNIT-II Neural networks	
10	II	McCulloch-Pitts neuron - linear separability - hebb network	T1(84-88)
11	II	Supervised learning network - perceptron networks - adaptive linear neuron - multiple adaptive linear neuron	T1(88-91)
12	II	BPN - RBF - TDNN	T1(93-96)
13	II	Associative memory network - auto-associative memory network - hetero associative memory network - BAM	T1(97-104)
14	II	Hopfield networks - iterative auto associative memory network & iterative associative memory network	T1(Miscellaneous)
15	II	Unsupervised learning networks - Kohonen self organizing feature maps	T1(98-99)
16	II	LVQ - CP networks	T1(105-106)
17	II	ART networks	T1(Miscellaneous)
18	II	ART networks	T1(Miscellaneous)
		UNIT-III Fuzzy Logic	
19	III	Membership functions: features, fuzzification methods of membership value assignments	T1(458-463)
20	III	Defuzzification: lambda cuts methods	T1(465-466)

Lec. No.	Unit No.	Topics to be covered	Page(s) of T/R Books
21	III	Defuzzification: lambda cuts - methods	T1(464-467)
22	III	fuzzy arithmetic and fuzzy measures: fuzzy arithmetic - extension principle	T1(469-485)
23	III	fuzzy measures - measures of fuzziness - fuzzy integrals	T1(479-480)
24	III	fuzzy rule base and approximate reasoning	T1(487-494)
25	III	Truth values and tables, fuzzy propositions, formation of rules decomposition of rules	T1(488-494)
26	III	aggregation of fuzzy rules, fuzzy reasoning - fuzzy inference system, Overview of fuzzy expert system	T1(495-497)
27	III	fuzzy decision making	T1(465-482)
		UNIT-IV Genetic Algorithm	
28	IV	Genetic algorithm - Introduction - biological background - traditional optimization and search techniques	R1(256-265)
29	IV	Genetic basic concepts - operators	R1(265-268)
30	IV	Encoding schemes	R1(268-270)
31	IV	Fitness Evaluation - crossover - mutation genetic programming	R1(270-274)
32	IV	multilevel optimization - real life problem	R1(275-280)
33	IV	advances in GA	R1(280-284)

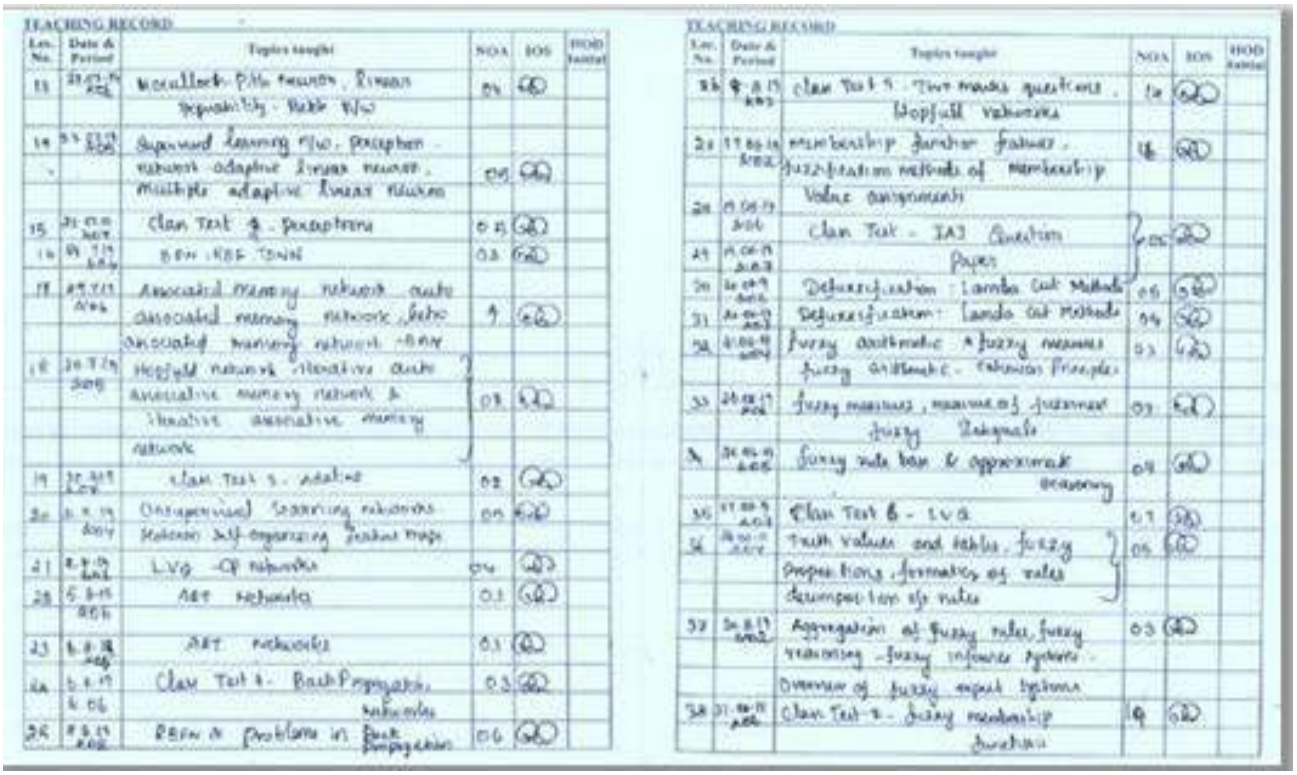
Lec. No.	Unit No.	Topics to be covered	Page(s) of T/R Books
		UNIT-V Hybrid Soft Computing Techniques & Applications	
34	V	Neuro fuzzy hybrid systems	R1(297-304)
35	V	Genetic neuro hybrid systems	R1(305-309)
36	V	Genetic fuzzy hybrid	R1(310-314)
37	V	fuzzy genetic hybrid systems	R1(315-319)
38-39	V	Simplified fuzzy ARTMAP	R1(320-325)
40	V	Applications: A fusion approach of multispectral images with SAR	T1(536-539)
41	V	Optimization of traveling salesman problem using genetic algorithm approach	T1(561-565)
42	V	Soft computing based hybrid fuzzy controllers	T1(585-588)

Sample Attendance and Assessment Record - Theory - OEC552 - Soft Computing



TEACHING RECORD

Lec. No.	Date & Period	Topics taught	NOA	IOS	HOD Initial
1		Introduction to Soft Computing	02		
2		Soft Computing constituents - From Conventional AI to Computational Intelligence	03		
3		Artificial Neural network-Introduction Characteristics	05		
4		Learning methods Taxonomy - Evolution of neural networks	9		
5		Class Test - 1 Basic models of ann	9		
6		Basic models - Important terminologies applications	02		
7		Fuzzy logic - Introduction crisp - fuzzy sets	05		
8		Cop-relations fuzzy relations; Cartesian product of relation. Classical relation	05		
9		Class Test 2 - fuzzy set operations	05		
10		fuzzy relations - belongs # equation relations, two matrix fuzzy sets	04		
11		Genetic algorithm, Introduction Biological background	03		
12		Traditional optimization & search techniques - Genetic basic concepts	08		



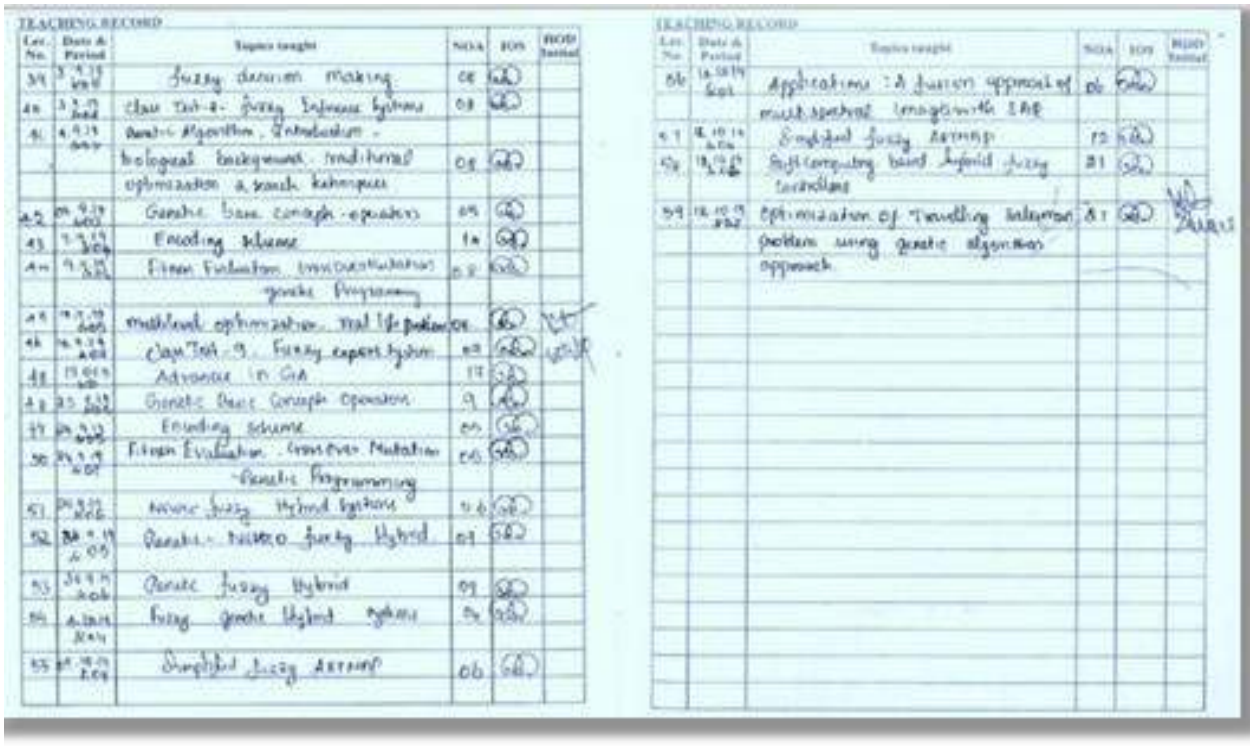
TEACHING RECORD

Lec. No.	Date & Period	Topics taught	NOA	IOS	HOD Initial
13		McCulloch Pitts neuron, Rosen blatt perceptron - Back N/w	04		
14		Supervised learning N/w - perceptron network adaptive linear neuron, multiple adaptive linear neurons	04		
15		Class Test 2 - perceptron	05		
16		BPN - XOR TONE	03		
17		Associated memory network auto associated memory network, hetro associative memory network - BAM	9		
18		Hopfield network - Iterative auto associative memory network & bidirectional associative memory network	03		
19		Class Test 3 - adaline	02		
20		Unsupervised learning networks - Kohonen self organizing feature maps	04		
21		LVQ - CP networks	04		
22		ART networks	03		
23		ART networks	03		
24		Class Test 4 - Back Propagation networks	03		
25		BPN & Problems in Back Propagation	06		

TEACHING RECORD

Lec. No.	Date & Period	Topics taught	NOA	IOS	HOD Initial
26		Class Test 5 - Two marks questions - Hopfield networks	10		
27		membership function features - fuzzification methods of membership - Value assignments	18		
28		Class Test - IA2 Question Paper	05		
29		Defuzzification - Lambda cut methods	06		
30		Defuzzification - Lambda cut methods	04		
31		fuzzy arithmetic & fuzzy measures - fuzzy arithmetic - Extension Principle	03		
32		fuzzy measures, measure of fuzziness - fuzzy integrals	03		
33		fuzzy rule base & approximate reasoning	04		
34		Class Test 6 - LVQ	07		
35		Truth values and tables, fuzzy propositions, formation of rules - decomposition of rules	05		
36		Aggregation of fuzzy rules, fuzzy reasoning - fuzzy inference systems - Overview of fuzzy expert systems	03		
37		Class Test 7 - fuzzy membership functions	10		

Sample Attendance and Assessment Record - Theory - OEC552 - Soft Computing

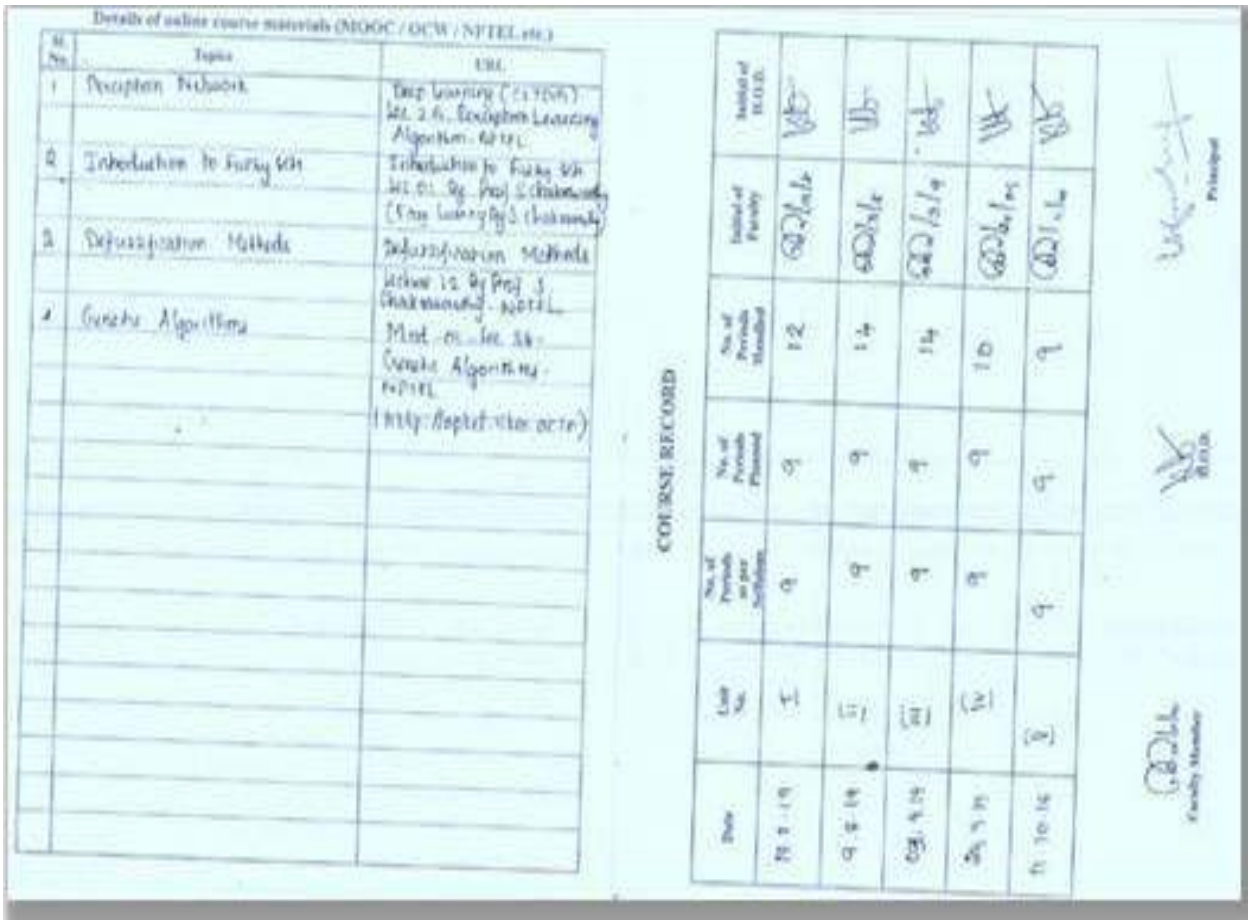


TEACHING RECORD

Lec. No.	Date & Period	Topics taught	Sign.	HOD Initial
39	3.9.19	Fuzzy decision making	08	
40	3.9.19	Class Test-2- Fuzzy Inference systems	08	
41	4.9.19	Genetic Algorithm, Introduction - biological background, traditional optimization & search techniques	08	
42	09.9.19	Genetic basic concepts-operators	08	
43	9.9.19	Encoding schemes	08	
44	9.9.19	Fitness Evaluation, crossover&mutation - genetic Programming	08	
45	10.9.19	multilevel optimization, real life problems	08	
46	10.9.19	Class Test-3, Fuzzy expert system	08	
47	11.9.19	Advances in GA	08	
48	13.9.19	Genetic Basic Concepts operators	08	
49	16.9.19	Encoding schemes	08	
50	16.9.19	Fitness Evaluation, crossover Mutation - Genetic Programming	08	
51	17.9.19	Neuro fuzzy Hybrid systems	08	
52	18.9.19	Genetic - Neuro fuzzy Hybrid	08	
53	20.9.19	Genetic fuzzy Hybrid	08	
54	23.9.19	Fuzzy genetic Hybrid systems	08	
55	24.9.19	Simplified fuzzy ARTMAP	08	

TEACHING RECORD

Lec. No.	Date & Period	Topics taught	Sign.	HOD Initial
56	14.10.19	Applications: A fusion approach of multispectral images with SAR	08	
57	8.10.19	Simplified fuzzy ARTMAP	08	
58	15.10.19	Soft computing based hybrid fuzzy controllers	08	
59	16.10.19	Optimization of Travelling salesman problem using genetic algorithm approach	08	



Details of online course materials (NPTEL / OCW / NPTEL etc.)

Sl. No.	Topics	URL
1	Perceptron Network	Deep Learning (CS7015) Lec 2.4 - Perceptron Learning Algorithm - NPTEL
2	Introduction to Fuzzy Sets	Introduction to Fuzzy Sets Lec 01 By Prof S Chakraverty (Even Semester) NPTEL
3	Defuzzification Methods	Defuzzification Methods
4	Genetic Algorithms	Lecture 12 By Prof S Chakraverty - NPTEL Mod - 01 - Lec 36 - Genetic Algorithms - NPTEL (http://nptel.ac.in)

COURSE RECORD

Date	Unit No.	No. of Periods on per Syllabus	No. of Periods Planned	No. of Periods Handled	Initial of Faculty	Initial of H.O.D.
28.8.19	I	9	9	12		
04.9.19	II	9	9	14		
09.9.19	III	9	9	14		
16.9.19	IV	9	9	10		
23.9.19	V	9	9	9		

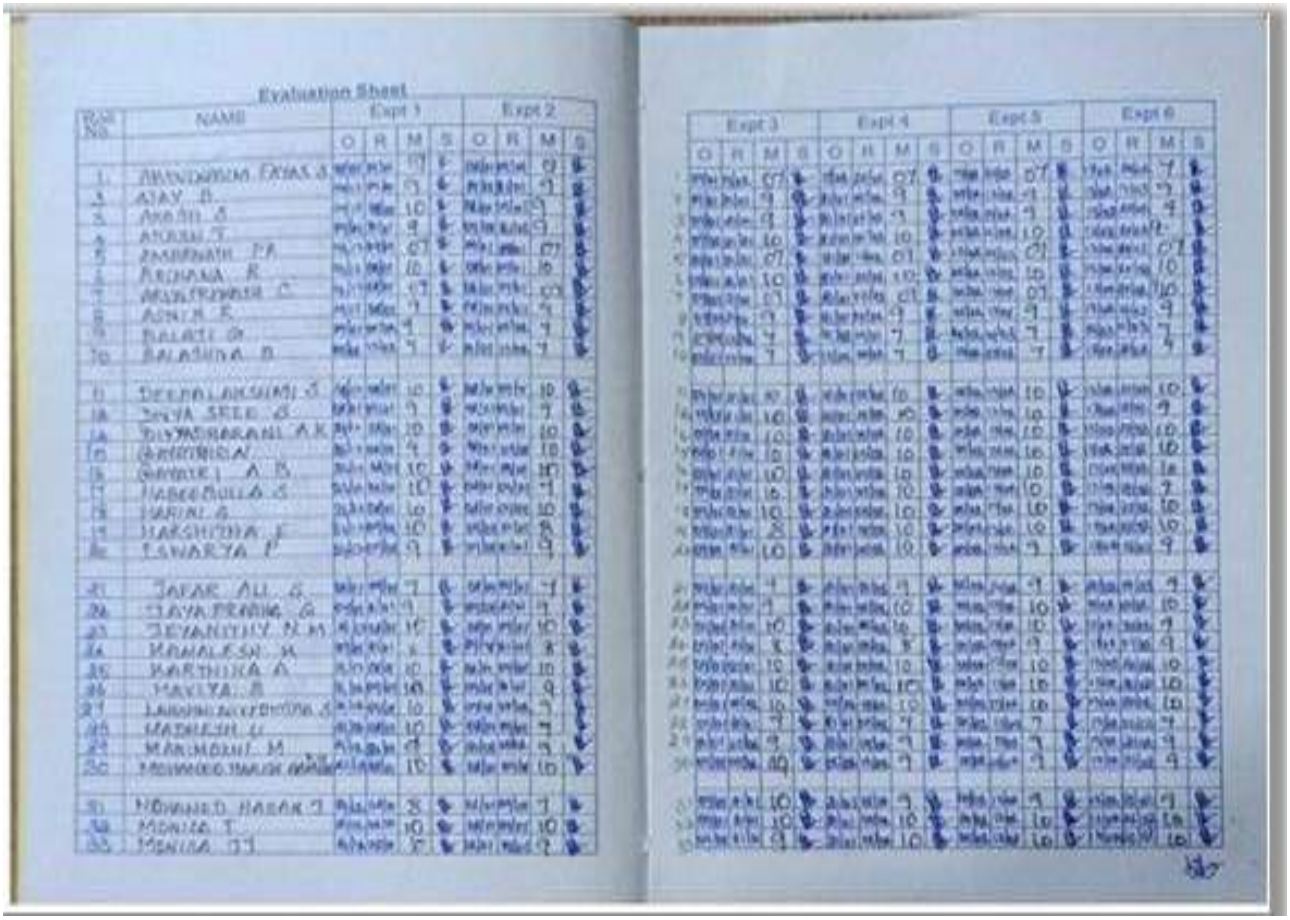
The course file for the Laboratory courses consist of:

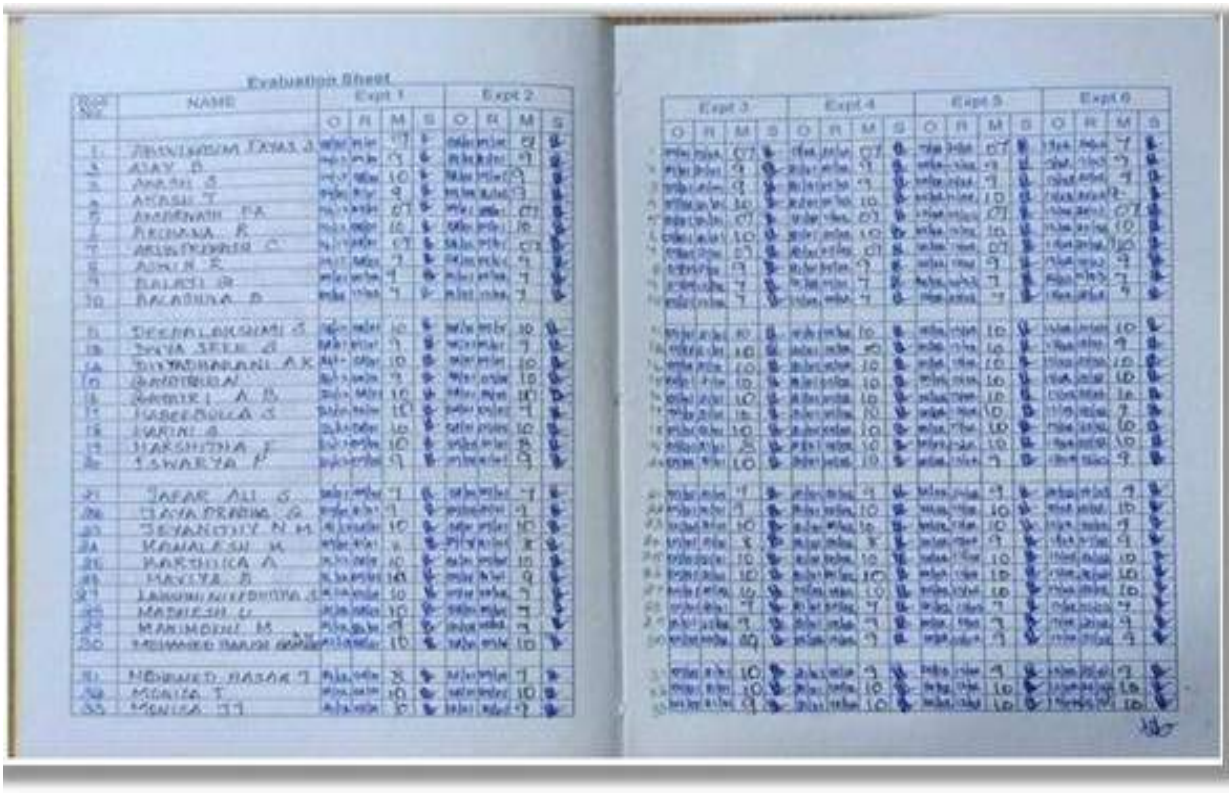
- Syllabus
- Lab manual
- Lab plan

Continuous evaluation

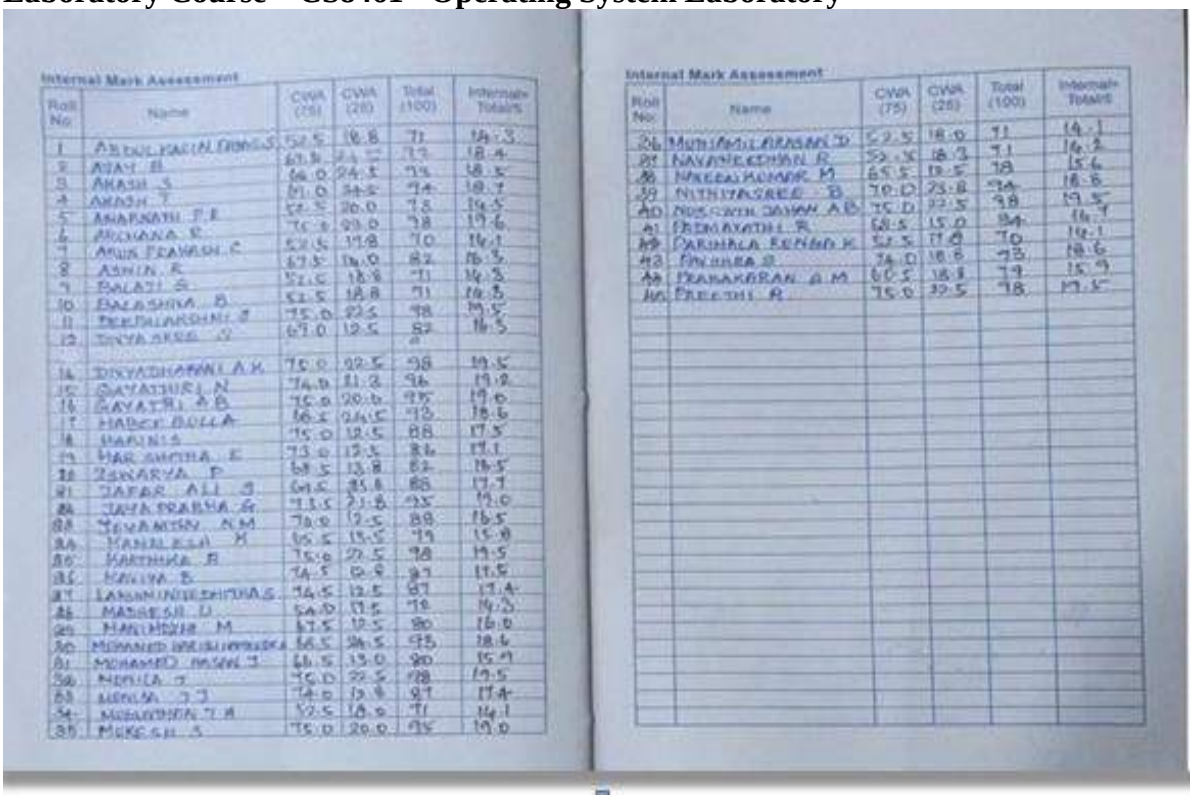
- Model examination marks and sample answer sheets Attendance and Assessment recordSample record
- According to the university syllabus, each lab has 10-14 programming problems.
- Additional programming exercises are carried out in the relevant courses to improve knowledge. Lecture Session duration is one period (50 minutes). Laboratory duration is 3-4 periods.
- Extra value added Workshops / seminars / guest lectures are offered to keep students up to date on the latest technological advances. Students work on mini projects and collaborative projects to better comprehend the knowledge gained in various courses.
- Students are encouraged to take part in extra-curricular and co-curricular activities.
- Value added course conducted for the students to improve the knowledge in current trends.

Sample Attendance and Assessment Record
Laboratory Course – CS8461 - Operating System Laboratory

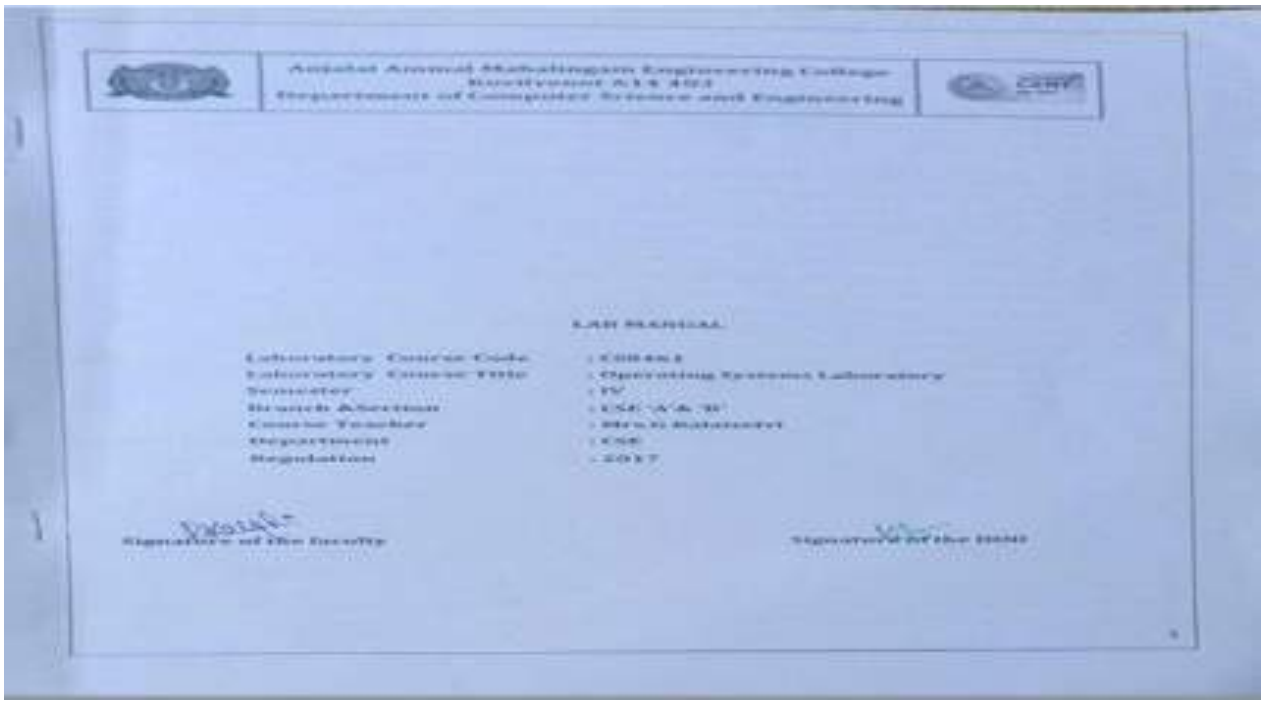




Laboratory Course – CS8461 - Operating System Laboratory



Laboratory Course – CS8461 - Operating System Laboratory



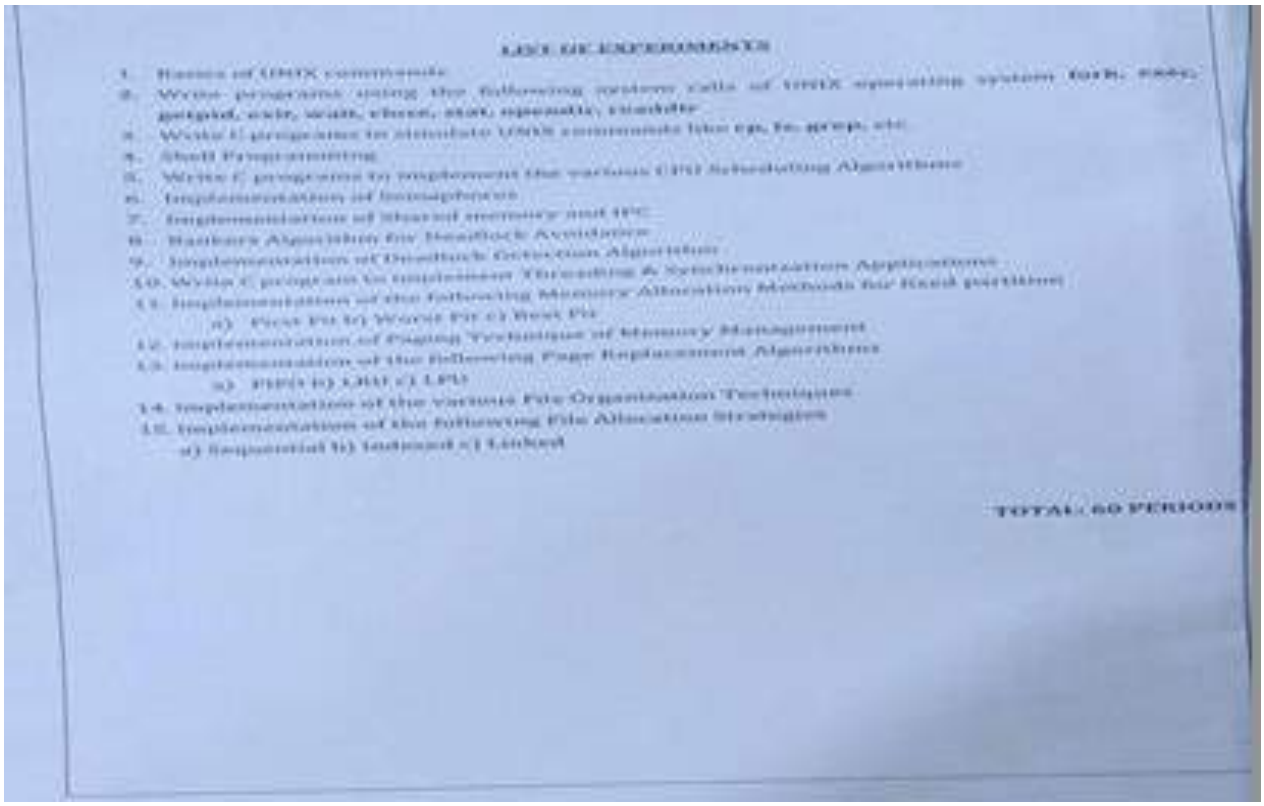
LAB MANUAL

Laboratory Course Code : CS8461
Laboratory Course Title : Operating Systems Laboratory
Semester : IV
Branch & Section : CSE 'A & B'
Course Teacher : Mrs.S.Subasree
Department : CSE
Regulation : 2017

Signature of the Faculty

Signature of the HOD

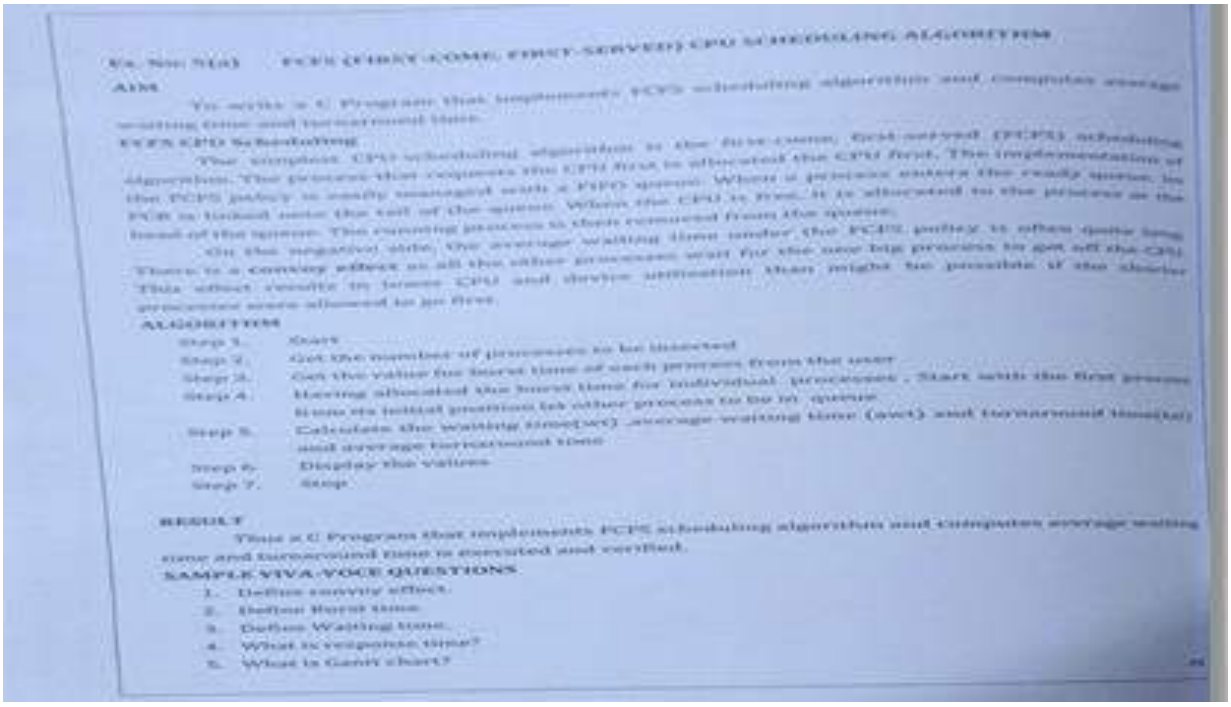
List of Experiments



LIST OF EXPERIMENTS

1. Basics of UNIX commands
2. Write programs using the following system calls of UNIX operating system fork, exit, getpid, exec, wait, close, stat, opendir, readdir
3. Write C programs to simulate UNIX commands like ls, ln, grep, etc.
4. Shell Programming
5. Write C programs to implement the various CPU Scheduling Algorithms
6. Implementation of Semaphore
7. Implementation of shared memory and IPC
8. Bankers Algorithm for Deadlock Avoidance
9. Implementation of Deadlock Detection Algorithm
10. Write C programs to implement Threading & Synchronization Applications
11. Implementation of the following Memory Allocation Methods for fixed partition
    a) First Fit b) Worst Fit c) Best Fit
12. Implementation of Paging Technique of Memory Management
13. Implementation of the following Page Replacement Algorithms
    a) FIFO b) LRU c) LFU
14. Implementation of the various File Organization Techniques
15. Implementation of the following File Allocation Strategies
    a) Sequential b) Indexed c) Linked

TOTAL: 60 PERIODS



AIM

ALGORITHM

RESULT

SAMPLE VIVA-VOCE QUESTIONS

1. Define convoy effect.
2. Define Burst time.
3. Define Waiting time.
4. What is response time?
5. What is Gantt chart?

Lab manual



Anjalai Ammal Mahalingam Engineering College
Kovilvenni-614 403
Department of Computer Science and Engineering

LAB MANUAL

Laboratory Course Title	:	**Data Science Laboratory**
Laboratory Course Code	:	**CS3361**
Semester	:	**III**
Branch & Section	:	**II CSE 'A' & 'B'**
Lab In-Charge	:	**K. Karthika**
Department	:	**CSE**
Batch	:	**2021 – 2025**
Year	:	**2022 – 2023**

SIGNATURE OF THE FACULTY **SIGNATUREOF THE HOD**

COURSE OBJECTIVES

- To understand the python libraries for data science
- To understand the basic Statistical and Probability measures for data science.
- To learn descriptive analytics on the benchmark data sets.
- To apply correlation and regression analytics on standard data sets.
- To present and interpret data using visualization packages in Python.

LIST OF EXPERIMENTS

1. Download, install and explore the features of NumPy, SciPy, Jupyter, Statsmodels and Pandas packages.
2. Working with Numpy arrays
3. Working with Pandas data frames
4. Reading data from text files, Excel and the web and exploring various commands for doing descriptive analytics on the Iris data set.
5. Use the diabetes data set from UCI and Pima Indians Diabetes data set for performing the following:
   a. Univariate analysis: Frequency, Mean, Median, Mode, Variance, Standard Deviation, Skewness and Kurtosis.
   b. Bivariate analysis: Linear and logistic regression modeling
   c. Multiple Regression analysis
   d. Also compare the results of the above analysis for the two data sets.
6. Apply and explore various plotting functions on UCI data sets.
   a. Normal curves
   b. Density and contour plots
   c. Correlation and scatter plots
   d. Histograms
   e. Three dimensional plotting
7. Visualizing Geographic Data with Basemap LIST OF EQUIPMENTS :(30 Students per Batch) Tools: Python, Numpy, Scipy, Matplotlib, Pandas, statmodels, seaborn, plotly, bokeh Note: Example data sets like: UCI, Iris, Pima Indians Diabetes etc.

LIST OF EQUIPMENTS :(30 Students per Batch)

Tools: Python, Numpy, Scipy, Matplotlib, Pandas, statmodels, seaborn, plotly, bokeh

Note: Example data sets like: UCI, Iris, Pima Indians Diabetes etc.

TOTAL : 60 PERIODS

COURSE OUTCOMES

At the end of this course, the students will be able to:

CO1: Make use of the python libraries for data science

CO2: Make use of the basic Statistical and Probability measures for data science.

CO3: Perform descriptive analytics on the benchmark data sets.

CO4: Perform correlation and regression analytics on standard data sets

CO5: Present and interpret data using visualization packages in Python.

Academic Calendar for the Year 2023-2024 (Even Sem)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE,
KOVILVENNI – THIRUVARUR DIST. 614 403
ACCREDITED BY "NAAC" WITH "B" GRADE

AAMEC CSE

Academic Calendar – EVEN semester 2023-2024
For III & IV Year B.E / B.Tech.

FEBRUARY 2024			MARCH 2024				APRIL 2024	
1	Commencement of III,IV year Even Semester classes	1	1		24	1	IAT-II for III,IV years	59
			2	1st Saturday		2	IAT-II for III,IV years	60
2		2	3	Sunday		3	IAT-II for III,IV years	61
3	1st Saturday		4	Second Class Committee Meeting –III year	25	4	IAT-II for III,IV years	62
4	Sunday		5	Second Class Committee Meeting –IV year	26	5	1st Saturday	
5		3	6		39	6	Sunday	
6		4	7		40	7	IAT-II for III,IV years	63
7		5	8	IAT-I for III,IV years	41	8		64
8		6	9	IAT-I for III,IV years	42	9	Telugu New Year	
9		7	10	Sunday		10		65
10	GL/Association/Placement Activities	8	11	IAT-I for III,IV years	43	11	Ramzan	
11	Sunday		12	IAT-I for III,IV years	44	12		66
12	First Class Committee Meeting for III year	9	13	IAT-I for III,IV years	45	13	GL/Association/Placement Activities	67
13	First Class Committee Meeting for IV year	10	14		46	14	Sunday	
14		11						68
15	0th Review for Project Work	12	15	Founder's Day	47	16	3rd Class Committee Meeting for III year	69
16		13	16	3rd Saturday		17	3rd Class Committee Meeting for IV year	70
17	3rd Saturday		17	Sunday		18		71
18	Sunday		18	2nd Review of for Project work	48	19		72
19		14	19		49	20	3rd Saturday	
20		15	20		50	21	Sunday	
21		16	21		51	22	Submission of paper in conferences/journals	73
22		17	22		52	23		74

23		18	23	GL/Association/Placement Activities	53	24	Final Review of for Project work	75
			24	Sunday				76
24	GL/Association/Placement Activities	19	25		54	26		77
25	Sunday		26		55	27	GL/Association/Placement Activities	78
26		20	27		56	28	Sunday	
27		21	28		57	29	IAT-III for III,IV years	79
28		22	29	Good Friday		30	IAT-III for III,IV years	80
29	1st Review for Project Work	23	30	GL/Association/Placement Activities	58		MAY 2024	
			31	Sunday		1	Labour's Day	
						2	IAT-III for III,IV years	81

						3	IAT-III for III,IV years	82
						4	Last working day	83
							Sunday	

HOD/CSE

Department of Computer Science and Engineering
Anjalai Ammal-Mahalingam Engineering College
Kovilvenni-614 403
(NAAC Accredited with B Grade

Academic Calendar – Odd semester 2023-2024
For II, III & IV Year B.E / B.Tech.

Date : 18.07.2023

Date	July-2023	W.D	Date	September-2023	W.D
27	Commencement of classes V, VII semester	1	1	I IAT – III year commences	30
28	CSI Activity	2	2	CSI Activity	31
29	Muharram		3	Sunday	
30	Sunday		4		32
31		3	5	Teacher's Day	33
Date	**August-2023**	**W.D**	6	Gokulashtami	
1		4	7		34
2		5	8		35
3		6	9	Parents meeting/Association activity	36
4	First Class Committee Meeting	7	10	Sunday	
5	Association activity/ Placement training	8	11	Commencement of classes III semester	37
6	Sunday		12		38
7		9	13	Second Class Committee Meeting	39
8		10	14		40
9		11	15	Engineer's Day	41
10		12	16	CSI Activity	42
11		13	17	Sunday	
12		14	18	Vinayagar chathurthi	
13	Sunday		19		43
14	Release of CSE Highlights Issue : 01	15	20		44
15	Independence day		21		45
16		16	22		46
17		17	23		47
18	NPTEL exam registration-Last date	18	24	Sunday	
19	Association activity/ Placement training	19	25	II IAT – IV year	48
20	Sunday		26	First Class Committee Meeting for II year	49
21		20	27		50
22		21	28	Miladi Nabi	
23		22	29		51
24	I IAT – IV year commences	23	30		52
25		24			
26		25			
27	Sunday				
28		26			
29		27			

30		28
31		29

Date	October-2023	W.D	Date	November-2023	W.D
1	Sunday		1	Release of CSE Highlights Issue : 02	76
2	Gandhi jayanthi		2		77
3		53	3		73
4		54	4	Third Class Committee Meeting/Association activity/ Placement training	79
5		55	5	Sunday	
6		56	6		80
7	Parents meeting/Association activity	57	7	Model Exam / IAT 2	81
8	Sunday		8		82
9		58	9		83
10		59	10		84
11		60	11		85
12		61	12	Sunday	
13		62	13		86
14	Association activity/ Placement training	63	14		87
15	Sunday		15		88
16		64	16		89
17		65	17	**Last working day**	90
18		66	18	Parents meeting/Association activity	
19		67	19	Sunday	
20	**Kshatriya'23**	68	20	**Commencement of Practical examinations**	
21		69	21		
22	Sunday		22		
23	Saraswathi pooja		23		
24	Vijayadashami		24		
25		70	25		
26		71	26	Sunday	
27		72	27		
28	Association activity/ Placement training	73	28		
29	Sunday		29	**Commencement of end semester examinations**	
30		74	30		
31		75	31		

HOD/CSE

Academic Calendar for the Year 2022-2023

Department of Computer Science and Engineering
Anjalai Ammal-Mahalingam Engineering College
Kovilvenni-614 403
(NAAC Accredited with B Grade

Academic Planner – ODD semester 2022-2023
For III & IV Year B.E / B.Tech.

	AUGUST 2022			SEPTEMBER 2022			OCTOBER 2022	
10	**III & IV Year UG Classes Reopening**	1	15		30	22	**Holiday**	
11	Tentative for Class Committee Meeting – I for III & IV Years	2	16		31	23	Sunday	
12		3	**17**		32	24	**Deepavali**	
13	**Career Planning**	4	18	Sunday		25	**Holiday**	
14	Sunday		19		33	26		59
15	Independence Day		20		34	27		60
16		5	21		35	28		61
17		6	22		35	**29**		62
18		7	23		37	30	Sunday	
19		8	24		38	31		
20	**Association Activities– Inauguration**	**9**	25	Sunday			**NOVEMBER 2022**	
21	Sunday		26		39	1		63
22	**II Year UG Classes Reopening**	10	27		40	2		64
23		11	28	**II - IAT**	41	3		65
24		12	29	**II - IAT**	42	4		66
25		13	30	**II - IAT**	43	**5**		67
26		14		**OCTOBER 2022**		6	Sunday	
27	**I - IAT**	21	1	**II - IAT**	44	7		68
28	Sunday		2	Sunday		8		69
29	**I - IAT**	16	3	**Holiday**		9		70
30	**I - IAT**	17	4	**Aayudha Pooja**		10		71
31	**Vinayagar Chathurthi**		5	**Vijayadhasami**		11		72
	SEPTEMBER 2022		6	**II - IAT**	45	**12**	**MODEL EXAM**	73
			7	**II - IAT**	46	13	Sunday	
1	**I - IAT**	18	8	**II - IAT**	47	14	**MODEL EXAM**	74
2	**I - IAT**	19	9	Sunday		15	**MODEL EXAM**	75
3	**I - IAT**	**20**	10		48	16	**MODEL EXAM**	76
4	Sunday		11		49	17	**MODEL EXAM**	77
5		21	12		50	18	**MODEL EXAM**	78
6		22	13		51	**19**	**Last Working day**	79
7		23	14		52	20	Sunday	
8		24	**15**		53	21	**LAB EXAM**	80
9		25	16	Sunday		22	**LAB EXAM**	81
10		26	17		54	23	**LAB EXAM**	82
11	Sunday		18	Tentative for Class Committee Meeting – III for III & IV Years	55	24	**LAB EXAM**	83
12		27	19		56	25	**Study Holidays**	84
13	Tentative for Class Committee Meeting – II for III & IV Years	28	20		57	26	**Study Holidays**	85
14		29	21		58	27	Sunday	

HOD/CSE

Department of Computer Science and Engineering
Anjalai Ammal-Mahalingam Engineering College
Kovilvenni-614 403
(NAAC Accredited with B Grade

Academic Calendar – EVEN semester 2022-2023
For II, III & IV Year B.E / B.Tech.

	FEBRUARY 2023			MARCH 2023			APRIL 2023	
3	Commencement of Even semester classes	1	15	**Founders day**	36	25		67
4		2	16	2nd Review for Project Work	37	26	Class Committee Meeting for II year	68
5	Sunday/Thaipoosam		17		38	27	Class Committee Meeting for III year	69
6		4	18	GL/Association/Placement Activities	39	28	Class Committee Meeting for IV year	70
7	0th Review for Project Work	5	19	Sunday		29	GL/Association/Placement Activities	71
8		6	20		40	30	Sunday	
9	0th Review for Project Work	7	21		41		**MAY 2023**	
10		8	22	**Telugu New Year**		1	**Labours day**	
11	GL/Association/Placement Activities	9	23		42	2		72
12	Sunday		24		43	3		73
13		10	25	GL/Association/Placement Activities	44	4		74
14		11	26	Sunday		5		75
15		12	27		45	6		76
16		13	28		46	7	Sunday	
17		14	29	Class Committee Meeting for II year	47	8		77
18	GL/Association/Placement Activities	15	30	Class Committee Meeting for III year	48	9		78
19	Sunday		31	Class Committee Meeting for IV year	49	10		79
20		16		**APRIL 2023**		11		80
21	1st Review for Project Work	17	1	GL/Association/Placement Activities	50	12		81
22	Class Committee Meeting for II year	18	2	Sunday		13	GL/Association/Placement Activities	82
23	Class Committee Meeting for III year/1st Review for Project Work	19	3		51	14	Sunday	
24	Class Committee Meeting for IV year	20	4	**Mahaveer jayanthi**		15	IAT-III for III,IV year, IAT-II for II year	83
25	GL/Association/Placement Activities	21	5		52	16	IAT-III for III,IV year, IAT-II for II year	84
26	Sunday		6		53	17	IAT-III for III year, IAT-II for II year	85
27		22	7	**Good Friday**		18	IAT-III for III year, IAT-II for II year	86
28		23	8	GL/Association/Placement Activities	54	19	IAT-III for III year, IAT-II for II year	87
	MARCH 2023		9	Sunday		20	IAT-III for III year, IAT-II for II year	88
			10	IAT-II for III,IV years, IAT –I for II year	55	21	Sunday	

1		24	11	IAT-II for III,IV years, IAT –I for II year	56	22		89
2		25	12	IAT-II for III,IV years, IAT –I for II year	57	23	Practical Exams Begins	90
3		26	13		58	24	Practical Exams	91
4	GL/Association/Placement Activities	27	14		59	25	Practical Exams	92
5	Sunday		15		60	26	Practical Exams	93
6	IAT-I for III,IV years	28	16	Sunday		27		94
7	IAT-I for III,IV years	29	17		61	28	Sunday	
8	IAT-I for III,IV years	30	18	3rd Review for Project Work	62	29		95
9		31	19		63	30		96
10		32	20	3rd Review for Project Work	64	31		97
11	GL/Association/Placement Activities	33	21		65			
12	Sunday		22	**Ramjan**				
13		34	23	Sunday				
14	2nd Review for Project Work	35	24		66			

HOD/CSE

Academic Calendar for the Year 2021-2022

Anjalai Ammal Mahalingam Engineering College

Kovilvenni - Thiruvarur

Department of Computer Science and Engineering

Academic Planner for Odd Semester
(2021-2022)(II,III & IV Year)

Date	Day	AUGUST 2021	No. of Working Days	3	Sunday	Holiday	
18	Wednesday	Commencement of classes	1				
19	Thursday		2	4	Monday		36
20	Friday	Holiday -Muharram		5	Tuesday		37
21	Saturday		3	6	Wednesday		38
22	Sunday	Holiday		7	Thursday	Portal Entry-Period 2 End Date Start	39
23	Monday		4	8	Friday		40
24	Tuesday		5	9	Saturday		41
25	Wednesday		6	10	Sunday	Holiday	
26	Thursday		7	11	Monday		42
27	Friday		8	12	Tuesday		43
28	Saturday		9	13	Wednesday	Portal Entry-Period 2 End Date	44
29	Sunday	Holiday		14	Thursday	Holiday-Ayutha Pooja	
30	Monday	Holiday-Sri Krishna Jayanthi		15	Friday	Holiday-Vijaya Dasami	
31	Tuesday		10	16	Saturday		45
Date	**Day**	**SEPTEMBER 2021**	**No. of Working Days**	17	Sunday	Holiday	
1	Wednesday	Tentative for Class Committee Meeting I for 3rd year	11	18	Monday		46
2	Thursday	Tentative for Class Committee Meeting I for 4th year	12	19	Tuesday	Holiday-Milad-un-nabi	
3	Friday		13	20	Wednesday		47
4	Saturday		14	21	Thursday		48
5	Sunday	Holiday		22	Friday	Tentative for Class Committee Meeting II for 2nd year,	49
6	Monday		15	23	Saturday	Tentative for Class Committee Meeting II for 3rd year	50
7	Tuesday		16	24	Sunday	Holiday	
8	Wednesday		17	25	Monday	Tentative for Class	51

						Committee Meeting II for 4th year	
9	Thursday		18	26	Tuesday		52
10	Friday	Holiday-Vinayakar Chathurthi		27	Wednesday	Tentative for IAT 2 (II, III & IV years)	53
11	Saturday	Holiday		28	Thursday	Tentative for IAT 2 (II, III & IV years)	54
12	Sunday	Holiday		29	Friday	Tentative for IAT 2 (II, III & IV years)	55
13	Monday	Portal Entry-Period 1 End Date Start	19	30	Saturday	Tentative for IAT 2 (II, III & IV years)	56
14	Tuesday		20	31	Sunday	Holiday	
15	**Wednesday**	**Guest Lecture**	**21**	**Date**	**Day**	**NOVEMBER 2021**	**No. of Working Days**
16	Thursday		22	1	Monday	Tentative for IAT 2 (II, III & IV years)	57
17	Friday	Tentative for Class Committee Meeting I for 2nd year	23				
18	Saturday	Portal Entry-Period 1 End Date	24	2	Tuesday	Tentative for IAT 2 (III & IV years)	58
19	Sunday	Holiday		3	Wednesday	Department staff meeting	59
20	Monday	Tentative for IAT 1 (II &IV years)	25	4	Thursday	Holiday-Deepavali	
21	Tuesday	Tentative for IAT 1 (III &IV years)	26	5	Friday	Holiday- Portal Entry-Period 3 End Date Start	
22	Wednesday	Tentative for IAT 1 (II &IV years)	27	6	Saturday	Holiday	
23	Thursday	Tentative for IAT 1 (III &IV years)	28	7	Sunday	Holiday	
24	Friday	Tentative for IAT 1(II &IV years)	29	8	Monday		60
25	Saturday	Tentative for IAT 1 (III &IV years)	30	9	Tuesday		61
26	Sunday	Holiday		10	Wednesday	Holiday	62
27	Monday		31	11	Thursday	Holiday-Portal Entry-Period 3 End Date	63
28	Tuesday		32	12	Friday		64
29	Wednesday	Holiday-Bakrid	33	13	Saturday		65
30	Thursday		34	14	Sunday	Holiday	
Date	**Day**	**OCTOBER 2021**	**No. of Working Days**	15	Monday		66
1	Friday		35	16	Tuesday		67
				17	Wednesday		
2	Saturday	Holiday-Gandhi Jayanthi		18	Thursday		68

19	Friday		69	21	Tuesday		96
20	Saturday		70	22	Wednesday		97
21	Sunday	Holiday		23	Thursday		98
22	Monday		71	24	Friday		99
23	Tuesday		72	25	Saturday	Holiday- Christmas	
24	Wednesday		73	26	Sunday	Holiday	
25	Thursday		74	27	Monday		100
26	Friday		75	28	Tuesday		101
27	Saturday		76	29	Wednesday	Tentative for Class Committee Meeting III for 2nd year	102
28	Sunday	Holiday		30	Thursday	Tentative for Class Committee Meeting III for 3rd year	103
29	Monday		77	31	Friday	Tentative for Class Committee Meeting III for 4th year	104
30	Tuesday	Portal Entry - Period 4 End –Start Date	78	**Date**	**Day**	**JANUARY 2022**	**No. of Working Days**
Date	**Day**	**DECEMBER 2021**	**No. of Working Days**	1	Saturday	Tentative for IAT 3	105
1	Wednesday		79	2	Sunday	Tentative for IAT 3	106
2	Thursday	Portal Entry - Period 4 End Date	80	3	Monday		107
3	**Friday**	**Guest Lecture**	81	4	Tuesday		108
4	Saturday		82	5	Wednesday		109
5	Sunday	Holiday		6	Thursday		110
6	Monday	Tentative for Model Exam (II, III & IV years)	83	7	Friday		111
7	Tuesday	Tentative for Model Exam (II, III & IV years)	84	8	Saturday		
8	Wednesday	Tentative for Model Exam (II, III & IV years)	85	9	Sunday	Holiday	
9	Thursday	Tentative for Model Exam (II, III & IV years)	86	10	Monday		
10	Friday	Tentative for Model Exam (II, III & IV years)	87	11	Tuesday		
11	Saturday	Tentative for Model Exam (II, III & IV years)	88	12	Wednesday		
12	Sunday	Holiday		13	Thursday	Holiday-BOGI	

13	Monday		89	14	Friday	Holiday-PONGAL	
14	Tuesday		90	15	Saturday	Holiday-Thiruvalluvar Day	
15	Wednesday		91	16	Sunday	Holiday-Uzhavar Thirunal	
16	Thursday		92	17	Monday	Holiday-Govt. Holiday	
17	Friday		93	18	Tuesday	Holiday- THAI POOSAM	
18	Saturday		94	19	Wednesday		
19	Sunday	Holiday		20	Thursday		
20	Monday		95	21	Friday	Commencement of AU-Theory Examinations	

Total Working Days: 111

HOD-CSE

Anjalai Ammal Mahalingam Engineering College

Kovilvenni - Thiruvarur

Department of Computer Science and Engineering

Academic Planner for Even Semester (2021-2022)(II,III & IV Year)

Date	Day	MARCH 2022	No. of Working Days				
16	Wednesday	Commencement of classes	1	12	Tuesday		23
17	Thursday		2	13	Wednesday		24
18	Friday		3	18	Monday		25
19	Saturday	Association Activities	4	19	Tuesday		26
21	Monday		5	20	Wednesday		27
22	Tuesday		6	21	Thursday	Tentative for IAT 1 (II, III &IV years) Portal Entry-Period 1 Start Date	28
23	Wednesday		7	22	Friday	Tentative for IAT 1 (II, III & IV years)	29
24	Thursday		8	23	Saturday	Tentative for IAT 1 (II, III &IV years)	30
25	Friday		9	25	Monday	Portal Entry-Period 1 End Date	31
26	Saturday	Association Activities	10	26	Tuesday		32
28	Monday		11	27	Wednesday		33
29	Tuesday		12	28	Thursday		34
30	Wednesday		13	29	Friday	Portal Entry-Period 2 Start Date	35
31	Thursday		14	30	Saturday	Association Activities	36
Date	**Day**	**APRIL 2022**	**No. of Working Days**	**Date**	**Day**	**MAY 2022**	**No. of Working Days**
1	Friday	Tentative for Class Committee Meeting I for 2nd year	15	2	Monday		37
4	Monday	Tentative for Class Committee Meeting I for 3rd year	16	4	Wednesday	Portal Entry-Period 2 End Date	38
5	Tuesday	Tentative for Class Committee Meeting I for 4th year	17	5	Thursday		39
6	Wednesday		18	6	Friday		40
7	Thursday		19	7	Saturday	Tentative for Class Committee Meeting II for 2nd year,	41
8	Friday		20	9	Monday	Tentative for Class Committee Meeting II for 3rd year	42
9	Saturday	Association Activities	21	10	Tuesday	Tentative for Class Committee Meeting II for 4th year	43
11	Monday		22	11	Wednesday		44

12	Thursday		45	11	Saturday	Tentative for IAT 3 (II, III & IV years)	69
13	Friday		46	13	Monday	Tentative for IAT 3 (II, III & IV years)	70
14	Saturday	Association Activities	47	14	Tuesday	Tentative for IAT 3 (II, III & IV years)	71
16	Monday		48	15	Wednesday	Tentative for IAT 3 (II, III & IV years)	72
17	Tuesday		49	16	Thursday	Tentative for IAT 3 (II, III & IV years) Portal Entry-Period 3 Start	73
18	Wednesday	Tentative for IAT 2 (II, III & IV years)	50	17	Friday	Tentative for IAT 3 (II, III & IV years) Portal Entry-Period 3 End Date	
19	Thursday	Tentative for IAT 2 (II, III & IV years)	52				
20	Friday	Tentative for IAT 2 (II, III & IV years)	53				
21	Saturday	Tentative for IAT 2 (II, III & IV years)	54				
23	Monday	Tentative for IAT 2 (II, III & IV years)	55				
24	Tuesday						
25	Wednesday	Portal Entry-Period 3 End Date Start	56				
26	Thursday		57				
27	Friday		58				
28	Saturday	Association Activities Portal Entry-Period 3 End Date	59				
30	Monday		60				
31	Tuesday		61				
Date	**Day**	**JUNE 2022**	**No. of Working Days**				
1	Wednesday		62				
2	Thursday		63				
3	Wednesday		64				
4	Friday		65				
6	Monday	Tentative for Class Committee Meeting III for 2nd year,					
7	Tuesday	Tentative for Class Committee Meeting III for 3rd year	66				
8	Wednesday	Tentative for Class Committee Meeting III for 4th year	67				
9	Thursday		68				

HOD/CSE

Value Added Course Approval Letter and Syllabus

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

(Approved by AICTE and Affiliated to Anna Universtsity, Chennai)

KOYILVENNI - 614 403. THIRUVARUR Dist. TAMILNADU.

Dr. S.N. RAMASWAMY M.E., Ph.D.,
Principal

Off : 04374-232516, 232696
E-mail : principal@aamec.edu.i
Web : www.aamec.edu.in

27.01.2020

To

The Director,
Centre for Academic Courses,
Anna University,
Chennai – 600025.

Sir,

Sub: Framing of syllabus for Value Added Courses – Regulation 2017 – Seeking Approval – Reg.

With reference to the clause No: **4.7 Value Added Courses of** Regulation 2017 applicable to affiliated colleges under Anna University, we have attached herewith the proposed syllabus **(revised)** for various courses to be offered during the **even** semester 2019-2020 as below.

S.No	Department	Name of the Course	Credits
1	B.E – CSE	Blockchains and Cryptocurrencies	2
2	B.E – ECE	Non Linear Electronics and Modelling	2
3	B.E – Mechanical	Technology for Energy Storage	2
4	B.Tech - Chemical	Process Intensification	2
5	B.Tech - IT	Intrusion and Anomaly Detection Systems	2

We hereby request The Director (CAC) and Controller of Examinations (AU) to accord approval for conducting the aforesaid Value Added Courses. Based on the approval we will take further steps to conduct the classes for the same.

Anticipating your early reply.

Thanking you,

Yours sincerely,

PRINCIPAL

Copy to: The Controller of Examinations, Anna University.

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

(Approved by AICTE and Affiliated to Anna Univertsity, Chennai)
KOYILVENNI - 614 403. THIRUVARUR Dist. TAMILNADU.

Dr. S.N. RAMASWAMY M.E., Ph.D.,
Principal

Ref: AAMEC/DAC-20-21/01 Dt: 08.02.2021

To

The Director
Centre for Academic Courses
Anna University,
Chennai – 600 025

Sir,

Sub: B.E/B.Tech/MCA – April/May 2021 VI Semester- Value Added Courses- Reg.

Approvals have been obtained from Director, Academic Courses, Anna University for conducting Value Added Courses during the academic year 2019-2020 in various B.E/B.Tech/MCA Programme for our college students as below.

S. No	Department	Course Code	Title	Date of Approval
01	Civil Engineering.	CVA015	Safety Aspects in Construction	25.09.2019
02	Electrical and Electronics Engineering	EVA011	Solar Photovolatic Technology	16.09.2019
03	Electronics and Communications Engg.	IVA043	Non Linear Electronics and Modelling	08.02.2020
04	Computer Science and Engg.	IVA042	Blockchains and Cryptocurrencies	08.02.2020
05	Mechanical Engineering	MVA019	Technology for Energy Storage	04.03.2020
~~06~~	~~Chemical Engineering~~	~~TVA006~~	~~Process Intensification~~	~~13.10.2020~~
07	Information Technology	IVA044	Intrusion and Anomaly Detection Systemes	08.02.2020
08	MCA	IVA045	React Framework	22.02.2020

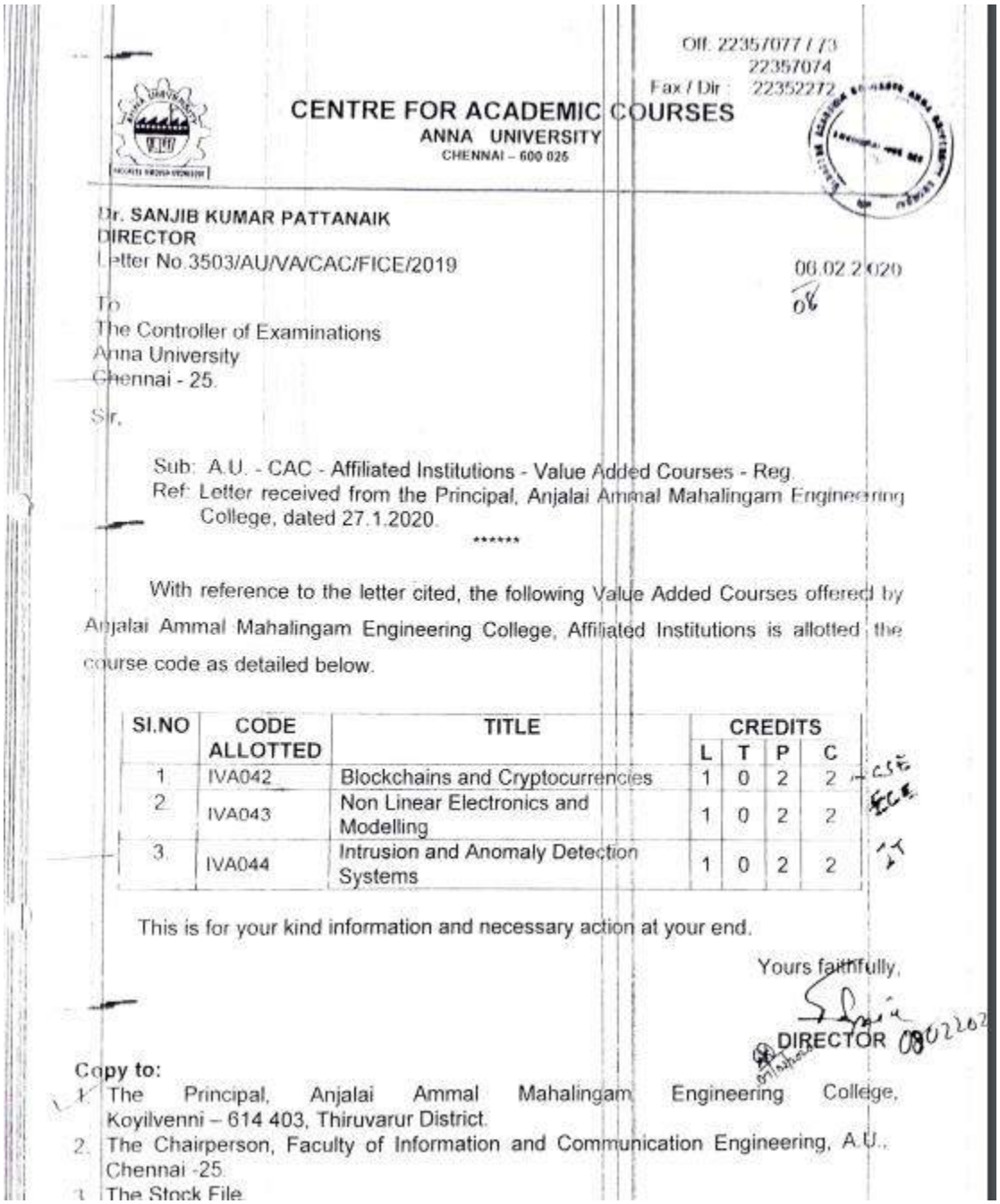
In order to satisfy the academic requirements as per the Regulation 2017, we have planned to conduct the same courses for the current academic year (2020-21) also. In this connection we hereby request Director, Academic Courses to accord approval for conducting the same subjects for the present academic year also.

Encls: Copy of the approval

Principal,
Anjalai Ammal Mahalingam
Engineering College,

Copy to: The Controller of Examinations

Value Added Course Approval Letter and Syllabus



Off. 2235/077 / 73
22357074
Fax / Dir : 22352272

CENTRE FOR ACADEMIC COURSES
ANNA UNIVERSITY
CHENNAI – 600 025

Dr. SANJIB KUMAR PATTANAIK
DIRECTOR
Letter No.3503/AU/VA/CAC/FICE/2019

06.02.2020

To
The Controller of Examinations
Anna University
Chennai - 25.

Sir,

Sub: A.U. - CAC - Affiliated Institutions - Value Added Courses - Reg.
Ref: Letter received from the Principal, Anjalai Ammal Mahalingam Engineering College, dated 27.1.2020.

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With reference to the letter cited, the following Value Added Courses offered by Anjalai Ammal Mahalingam Engineering College, Affiliated Institutions is allotted the course code as detailed below.

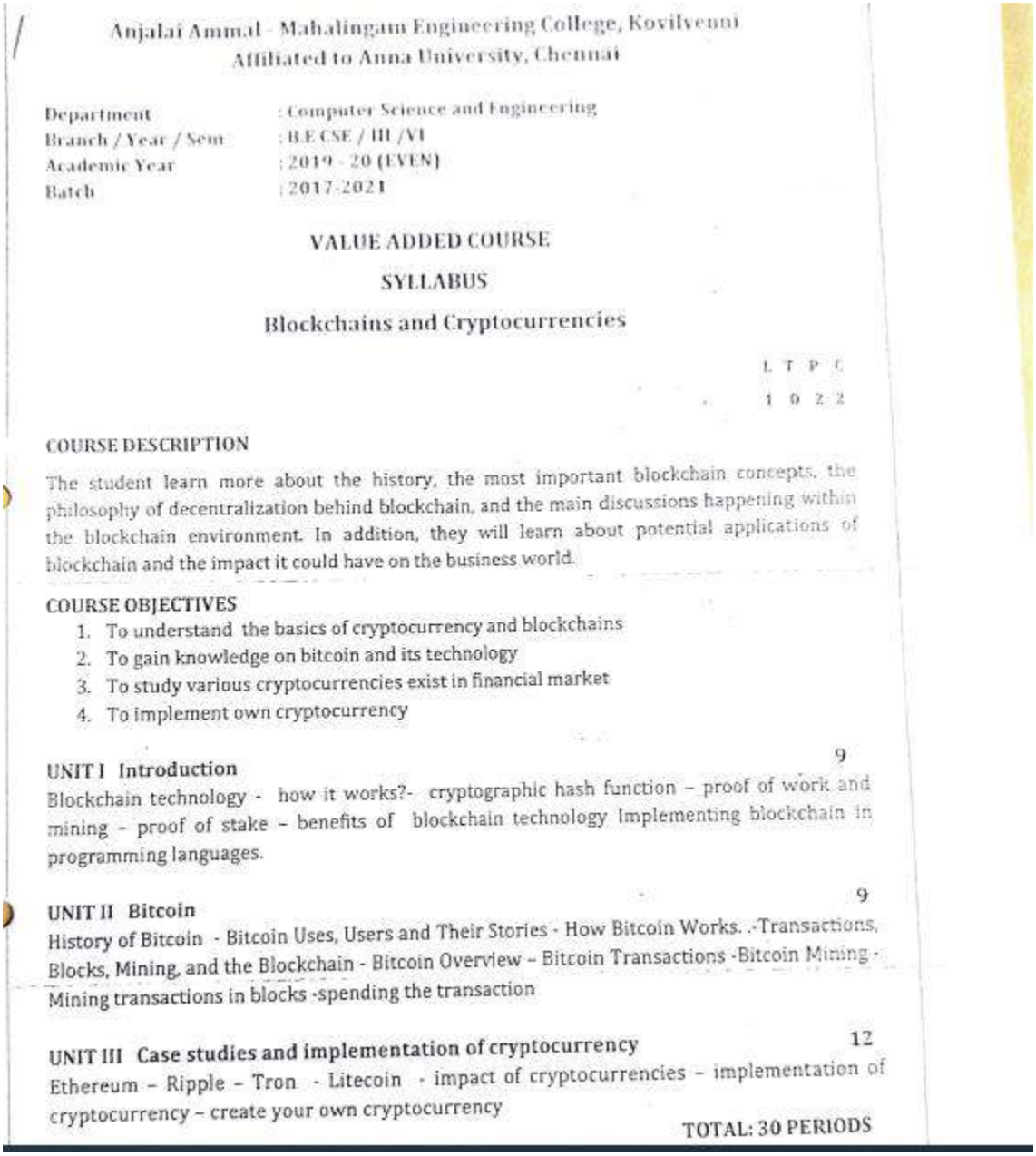
SI.NO	CODE ALLOTTED	TITLE	CREDITS			
			L	T	P	C
1	IVA042	Blockchains and Cryptocurrencies	1	0	2	2
2	IVA043	Non Linear Electronics and Modelling	1	0	2	2
3	IVA044	Intrusion and Anomaly Detection Systems	1	0	2	2

This is for your kind information and necessary action at your end.

Yours faithfully,

DIRECTOR 08/02/2020

Copy to:
1. The Principal, Anjalai Ammal Mahalingam Engineering College, Koyilvenni – 614 403, Thiruvarur District.
2. The Chairperson, Faculty of Information and Communication Engineering, A.U., Chennai -25.
3. The Stock File.



Anjalai Ammal - Mahalingam Engineering College, Kovilvenni
Affiliated to Anna University, Chennai

Department : Computer Science and Engineering
Branch / Year / Sem : B.E CSE / III /VI
Academic Year : 2019 - 20 (EVEN)
Batch : 2017-2021

VALUE ADDED COURSE

SYLLABUS

Blockchains and Cryptocurrencies

L T P C
1 0 2 2

COURSE DESCRIPTION

The student learn more about the history, the most important blockchain concepts, the philosophy of decentralization behind blockchain, and the main discussions happening within the blockchain environment. In addition, they will learn about potential applications of blockchain and the impact it could have on the business world.

COURSE OBJECTIVES

1. To understand the basics of cryptocurrency and blockchains
2. To gain knowledge on bitcoin and its technology
3. To study various cryptocurrencies exist in financial market
4. To implement own cryptocurrency

UNIT I Introduction 9

Blockchain technology - how it works?- cryptographic hash function – proof of work and mining - proof of stake – benefits of blockchain technology Implementing blockchain in programming languages.

UNIT II Bitcoin 9

History of Bitcoin - Bitcoin Uses, Users and Their Stories - How Bitcoin Works. -Transactions, Blocks, Mining, and the Blockchain - Bitcoin Overview – Bitcoin Transactions -Bitcoin Mining - Mining transactions in blocks -spending the transaction

UNIT III Case studies and implementation of cryptocurrency 12

Ethereum – Ripple – Tron - Litecoin - impact of cryptocurrencies – implementation of cryptocurrency – create your own cryptocurrency

TOTAL: 30 PERIODS

Value Added Course Even Sem(2022-2023)

Sl.No.	Course Name	Year	Handled by
1	Cyber security	II	Mrs.K.Karthika & Mrs.S.Farjana Farvin
2	RPA (robotic process automation)	IV	Mr.Arun Vignesh

Pedagogical initiatives methods

The faculty members focus on Outcome-Based Education (OBE) and are actively implementing OBE to adapt to students learning needs through creative techniques. To provide the finest learning environment for students, the departments faculty uses a variety of innovative Teaching & Learning approaches.

Lecture method and Interactive learning

The faculty use chalk and board as well as ICT tools to deliver the course content in an effective manner. Students are motivated to actively participate in the lecture by initiating the student to ask doubts and refine their understanding of the concepts.

Moreover, students are encouraged to present seminars on topics related to their studies, which improves their presentation skills.

Project-based learning

In the pre-final year, students are to do mini-projects, and in the final year, projects are to be completed under the supervision of faculty members.

A separate lab with 35 computer systems - Free and open source software (FOSS) lab is established in thedepartment to work in various open source software and do projects.

Students are encouraged to publish the project work in Conferences and Journals.

Computer-assisted learning

The department has an adequate number of computers, LCD projectors, internet access, application software,system software and printers.

For successful teaching, faculty members are making good use of resources such as the National Programon Technology Enhanced Learning (NPTEL) and online resources.

Collaborative learning

Collaborative learning is implemented by assigning a group of students with tutorials, seminars, in houseproduct development, conducting symposium and technical topic discussion.

Practical learning

Faculty members are to give prime importance to laboratory courses because technical education deals withimplementation aspects of the concepts learned in theory courses

Laboratory courses associated with theory courses as per the curriculum

Laboratory courses associated with theory courses as per the curriculum

Course	Associated Laboratory C courses
Semester-I	
Engineering Physics Engineering Chemistry	Physics and ChemistryLaboratory
Problem Solving and Python Programming	Problem Solving and Python ProgrammingLaboratory
Semester-II	
Basic Electrical, Electronics and Measurement Engineering	Engineering PracticesLaboratory
Programming in C	C ProgrammingLaboratory.
Semester-III	
DataStructures	DataStructures Laboratory
Object OrientedProgramming	Object Oriented Programming Laboratory
Digital Principles andSystem Design	Digital SystemsLaboratory
Interpersonal Skills/Listening	
Semester- IV	
Database ManagementSystems	Database ManagementSystems Laboratory
Operating Systems	Operating SystemsLaboratory
Advanced Reading andWriting	
Semester-V	
Microprocessors andMicrocontrollers	Microprocessors and MicrocontrollersLaboratory
Object Oriented Analysisand Design	Object Oriented Analysisand Design Laboratory
Computer Networks	Networks Laboratory
Semester-VI	
Internet Programming	Internet ProgrammingLaboratory
Mobile Computing	Mobile Application Development Laboratory
Mini Project	Mini Project Lab
Professional Communication	
Semester-VII	
Cloud Computing	Cloud ComputingLaboratory
Cryptography andNetwork Security	Security Laboratory
Semester-VIII	
Project Work	Project Lab

Process for laboratory courses

Curriculum stipulates 2-4 laboratory courses per semester from1st to 7th semester. All laboratories are well-equipped with essential hardware, software, internet and instruction manuals. Two faculty membersand one technician are assigned for each lab session.

The observation and record books are checked, verified by the faculty members.

The Laboratory courses are conducted as 3 to 4 periods per session. In each session the concerned facultymember will explain the logic/algorithm of the program to be done by the student.

The students will write the complete program in the observation note book, execute and record the resultsobtained

After the successful execution of the program, theory, procedure, Algorithm/flowchart and output aredocumented in the record note book by the students

Active learning

Active learning is an approach that involves activity based learning which make all students to participatein discussions, problem solving, case studies, role plays and other methods.



Roles:

Each Student Acting as a node in the game tree .As shown in the above diagram 3 boys acting Min nodes(A1,A2,A3), 10 girl students acting as Max nodes(Root Node :A , Leaf Nodes :A11,A12,A13,A21,A22,A23,A31,A32,A33)

Activity:

Root node needs an optimal move; it checks the second level Min nodes. Min nodes check their successor's nodes for their current optimal decision. They choose the **Minimum value** among them. After that Root node compares all the Min Nodes and prefers the **Maximum value** as optimal move.

Benefits of Role Play:

- They are fun.
- They can consolidate learning and allow students the opportunity to discover their own level of mastery over AI algorithmic content
- They offer good listening practice.
- They may be used as a stimulus to discussion and problem solving

Active Learning- Role Play Activity

Subject: Artificial Intelligence | Topic: Min-Max Algorithm

Date: March 12 2021 | Batch: 2018-2022 Batch

Year: III CSE A & B | Staff Name: S.Farjana Farvin

Role-play is **experiential learning** based on **perspective-taking** within a scenario. Participants inform themselves about the viewpoint of an interest group or character and then perform that role according to a set of rules to resolve a problem, carry out a task, or understand dynamics .The **thinking, feeling, watching and doing** inherent to role-play can bring academic learning to life, providing students with opportunities to **transfer** what they have learned to **realistic**, unfamiliar, relatively safe contexts.

Min-Max Algorithm:

- Mini-max algorithm is a recursive or backtracking algorithm which is used in decision-making and game theory. It provides an optimal move for the player assuming that opponent is also playing optimally.
- Min-Max algorithm is mostly used for game playing in AI. Such as Chess, Checkers, tic-tac-toe, go, and various tow-players game. This Algorithm computes the minimax decision for the current state.
- In this algorithm two players play the game, one is called MAX and other is called MIN.

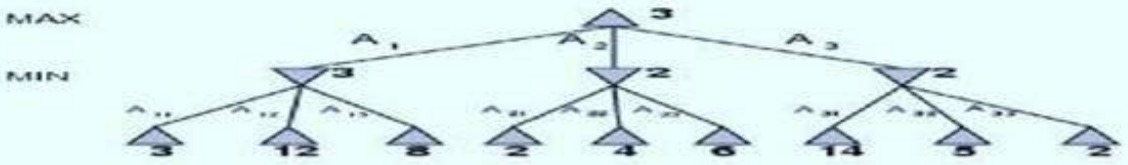


Figure 1: Min-Max Game Tree

Active learning -crossword

Search Strategies

Crossword



Across:	
1	One Search from Starting to Goal .Another one from Goal to Starting Node.
3	Simple Adversarial Search
6	Heuristic Search which is not producing optimal Solution
7	Same as Breadth First Search if all path cost are equal
8	Agent which maximize performance measure based on percept history and action
9	Current Path is not leading to Goal State in DFS.then We have to do this
10	Cutting the branches which is not influencing the final result
11	One of the CSP Solving method
12	Famous problem deals with jugs
13	Considering only current state and neighbour state.
14	One of the Performance measurement parameter for algorithm

Down:	
2	Compare current state with neighbour state.If the neighbour state improves my current state,move to that neighbour
4	f(n)=g(n)+h(n)
5	Depth First Search with Cutoff
6	selection,crossover,mutation

Active Learning-Artificial Intelligence

Active Learning

Activity Name: Role Play

Subject: Artificial Intelligence
Topic: Agent Argumentation
Date: May 09 2023
Batch: 2019-2023 Batch
Year: III CSE A & B
No of participants: 75

Role play exercises give students the opportunity to assume the role of a person or act out a given situation. These roles can be performed by individual students, in pairs, or in groups which can play out a more complex scenario. Role playing exercises encourage students to think more critically about complex and controversial subjects and to see situations from a different perspective. When properly employed, role plays can motivate students in a fun and engaging way. Role playing can be effectively used in the classroom to:

(i) Motivate and engage students
(ii) Enhance current teaching strategies
(iii) Provide real-world scenarios to help students learn
(iv) Learn skills used in real-world situations (negotiation, debate, teamwork, cooperation, persuasion)
(v) Provide opportunities for critical observation of peers

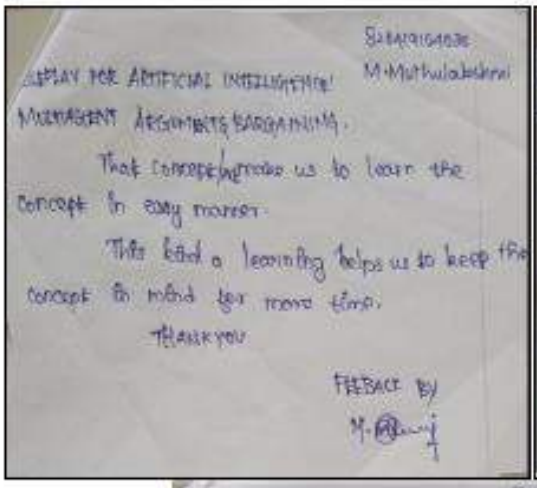
Agent Argumentation:
"Argumentation is a verbal and social activity of reason aimed at increasing (or decreasing) the acceptability of a controversial standpoint for the listener or reader, by putting forward a constellation of propositions intended to justify (or refute) the standpoint before a rational judge".
Consider the following scenario,
Agent A1 trying to hang a painting, and another A2 trying to hang a mirror.A1possesses a screw, a screw driver and a hammer, but needs a nail in addition to the hammer to hang the painting. On the other hand, A2possesses a nail, and believes that to hang the mirror, it needs a hammer in addition to the nail.
A1-Agent 1 role is done by V.Nandhini(820419104039) and A2-Agent2 role was played by V.Dhivya (820419104019)

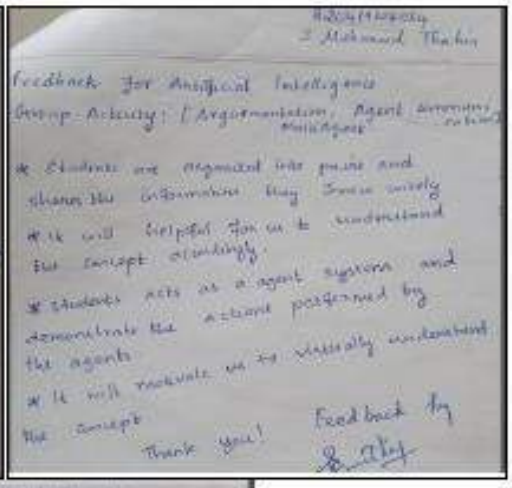
At first, A2 was not willing to give away the nail because it needed it to achieve its goal. But after finding out the reason for rejection, A1managed to persuade A2 to give away the nail by providing an alternative plan for achieving the latter's goal

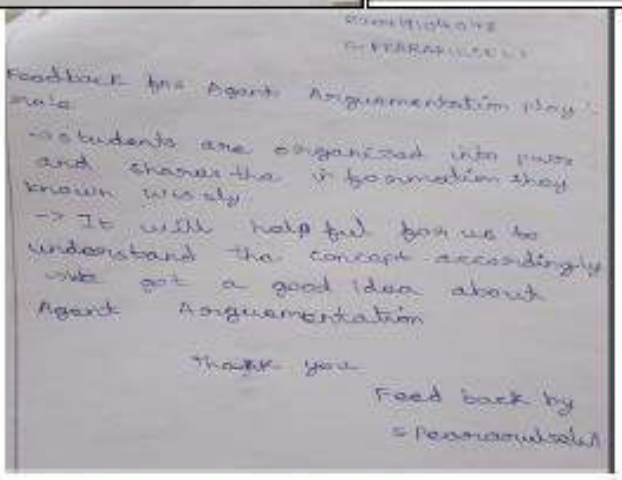




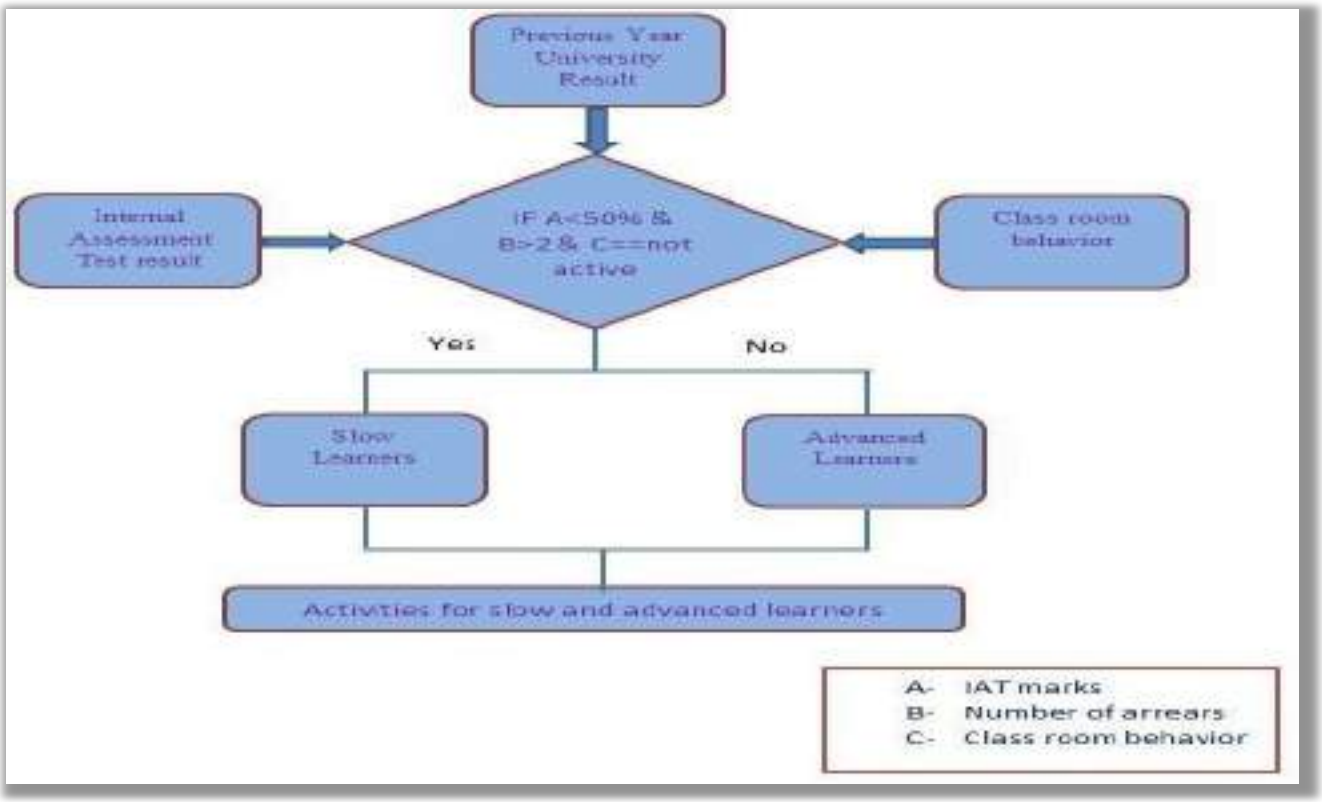
Feedback from Participants:







Process of identifying slow and advanced learners



- The slow learners and advanced learners are identified based on their overall performance of +2marks, internalassessment tests and previous year University results.

Methodologies of identifying slow learners

Process of identifying slow and advanced learners

S. No.	Traits	Identifier	Remedy	Outcome
1.	One has ability to learn but takes longer time to grasp new concepts	Course Instructor	Tutorial Class /Customized assignments	Able to explainconcepts
2.	One is not self-confident and gives up quickly	Course Instructor/ Class Coordinator	Counselling /Continuous monitoring	Able to perform better in tests /Behavioural Change
3.	One has short memory and don't remember what has been taught to them in class	Course Instructor	Preparatory Tests /Customized assignments/Addition al laboratory Classes	Able to perform better in tests and university exams

4.	One has poor communication skills and writingskills	Course Instructor/ Class Coordinator	Customized Assignments /Group discussion	Able to participate in discussion in the class /writes better in tests and university exams
5.	He/she is an experiential learner	Course Instructor	Use of ICT devices / Additional laboratory classes	Able to perform better in tests
6.	One is irregular to the classes	Course Instructor	Counselling /Continuous monitoring	Attends classes regularly
7.	One has poor academic background at the entry to the programme and do not perform well in initial tests	Course Instructor/ Class Coordinator	Bridge coursesessions	Improvement observed (Marksmay be a metric)

Methodologies of identifying advanced learners

S. No.	Traits	Identifier	Remedy	Outcome
1.	One has ability to grasp new concepts really fast	Course Instructor	Customize assignment	Demonstrates Critical thinking.
2.	One who completes laboratory exercisesvery fast and wait for additional exercises	Course Instructor	Additional laboratory exercises aregiven	Gets good grades in tests and examinations
3.	One who participates actively in discussions that happen in the class room	Course Instructor/ Class Coordinator	Encouraged to organize events	Able to lead and convince people
4.	One has good academic background at the entry to the programme and does well in initial tests	Course Instructor/ Class Coordinator	They are supported for internships at industries and are incentivised by giving academic flexibility.	Demonstrates assimilation of knowledge
5.	One who is highly focused about his/her future	Course Instructor/ Class Coordinator	Online access to research journal and study material required for higher learning is given	Demonstrates assimilation of knowledge

6.	One who volunteer for attending additional training, workshops and internships	Course Instructor/ Class Coordinator	They are encouraged to do innovative projects, seek funding from management/ external agencies (Tamil Nadu State Council for Science and Technology ,etc,) and participate in project exhibitions	Emerges successful in carrying out innovative projects

Methodologies for assisting slow learners and advanced learner

Special classes are scheduled for slow learners to help themenhance their course knowledge.

Advanced learners are encouraged to take part in GATE and NPTEL courses, TNPSC.

Students are motivated to give technical papers in seminars and conferences, as well as to publish their work in journals.

They are being given special attention to achieve university ranks and to take competitive tests in order To pursue higher education.

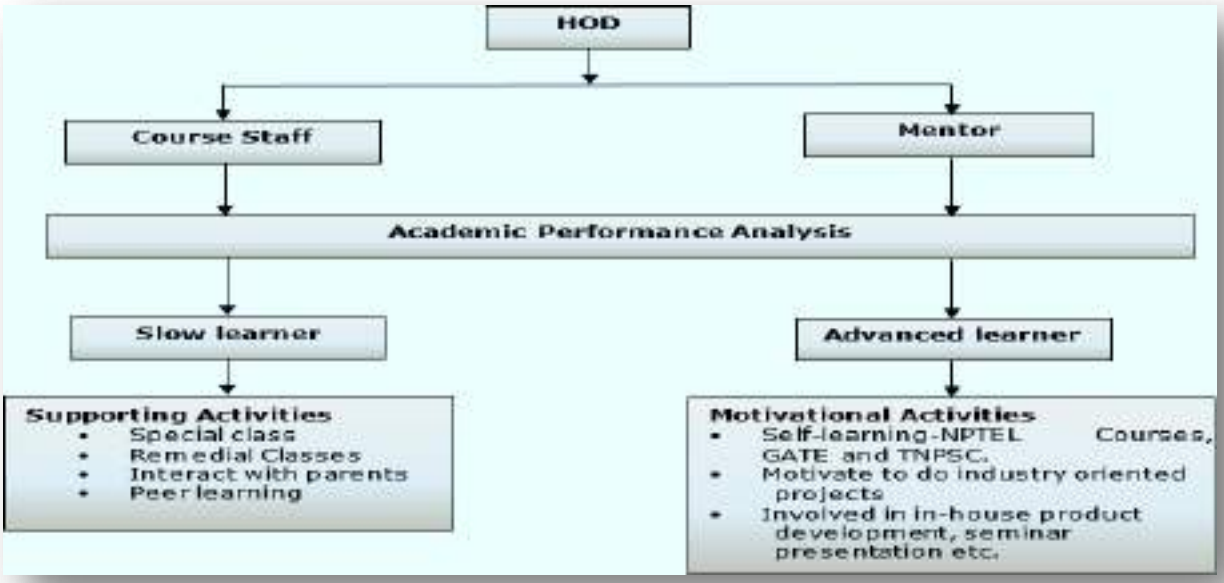


Figure 2.2.1. Process to improve the quality of Teaching and Learning process

Activities conducted for slowlearners

Counselling – special hints and methodologies

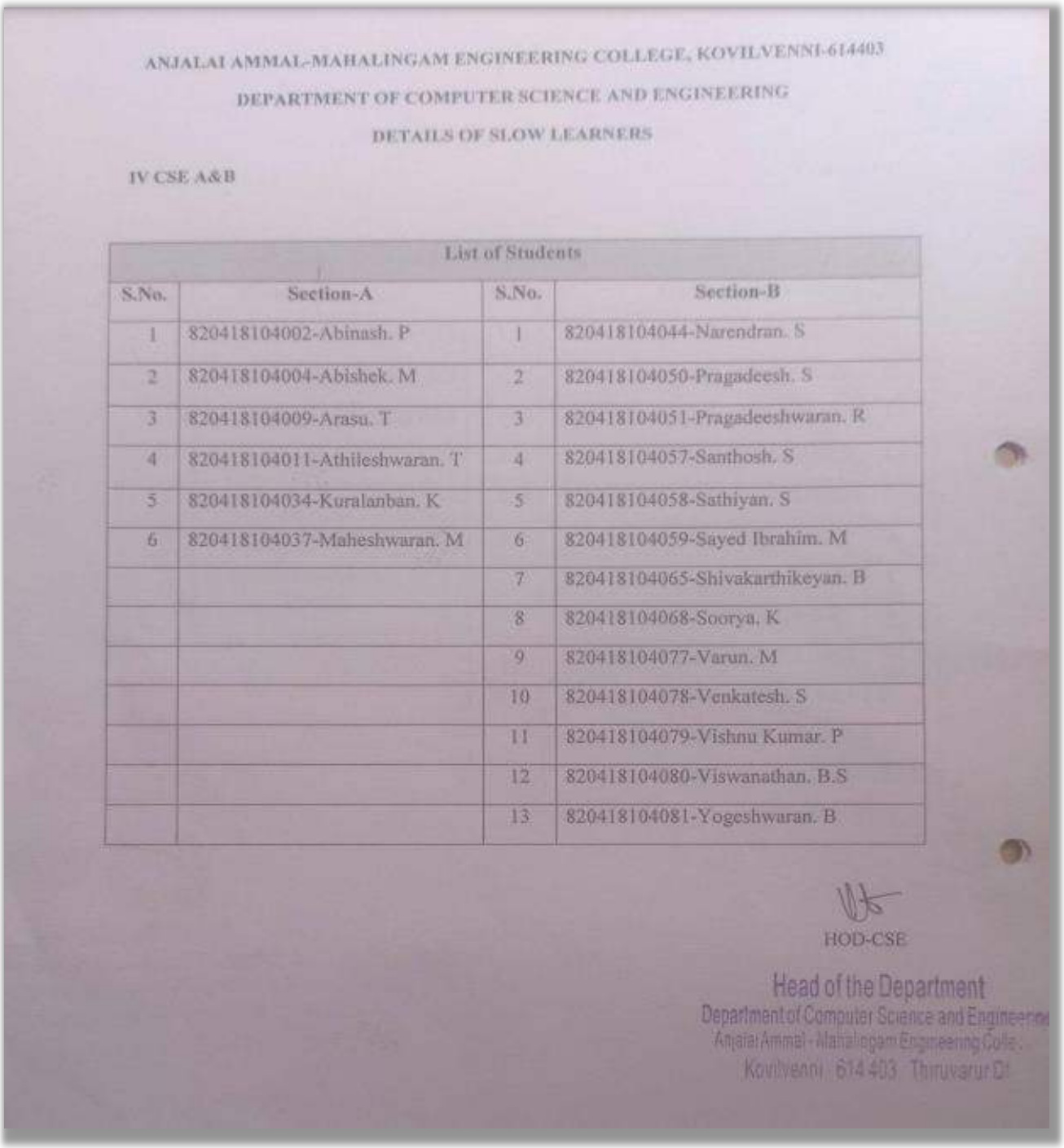
Make up classesand additional practical periods Personal care

Assignment problem solving

Solving Previous year University Question paper

Anjalai Ammal Mahalingam Engineering College is an approved
Academic Center of IIT BOMBAY– Spoken Tutorial Program since January 2020. The Program is a part of the National Mission on Education through ICT, MHRD and Govt. of India. E-certificates were issued for the students and faculty members by IIT Bombay Spoken Tutorial – National Coordinator

Slow Learner Name List



ANJALAI AMMAL-MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI-614403

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DETAILS OF SLOW LEARNERS

IV CSE A&B

List of Students			
S.No.	Section-A	S.No.	Section-B
1	820418104002-Abinash. P	1	820418104044-Narendran. S
2	820418104004-Abishek. M	2	820418104050-Pragadeesh. S
3	820418104009-Arasu. T	3	820418104051-Pragadeeshwaran. R
4	820418104011-Athileshwaran. T	4	820418104057-Santhosh. S
5	820418104034-Kuralanban. K	5	820418104058-Sathiyan. S
6	820418104037-Maheshwaran. M	6	820418104059-Sayed Ibrahim. M
		7	820418104065-Shivakarthikeyan. B
		8	820418104068-Soorya. K
		9	820418104077-Varun. M
		10	820418104078-Venkatesh. S
		11	820418104079-Vishnu Kumar. P
		12	820418104080-Viswanathan. B.S
		13	820418104081-Yogeshwaran. B

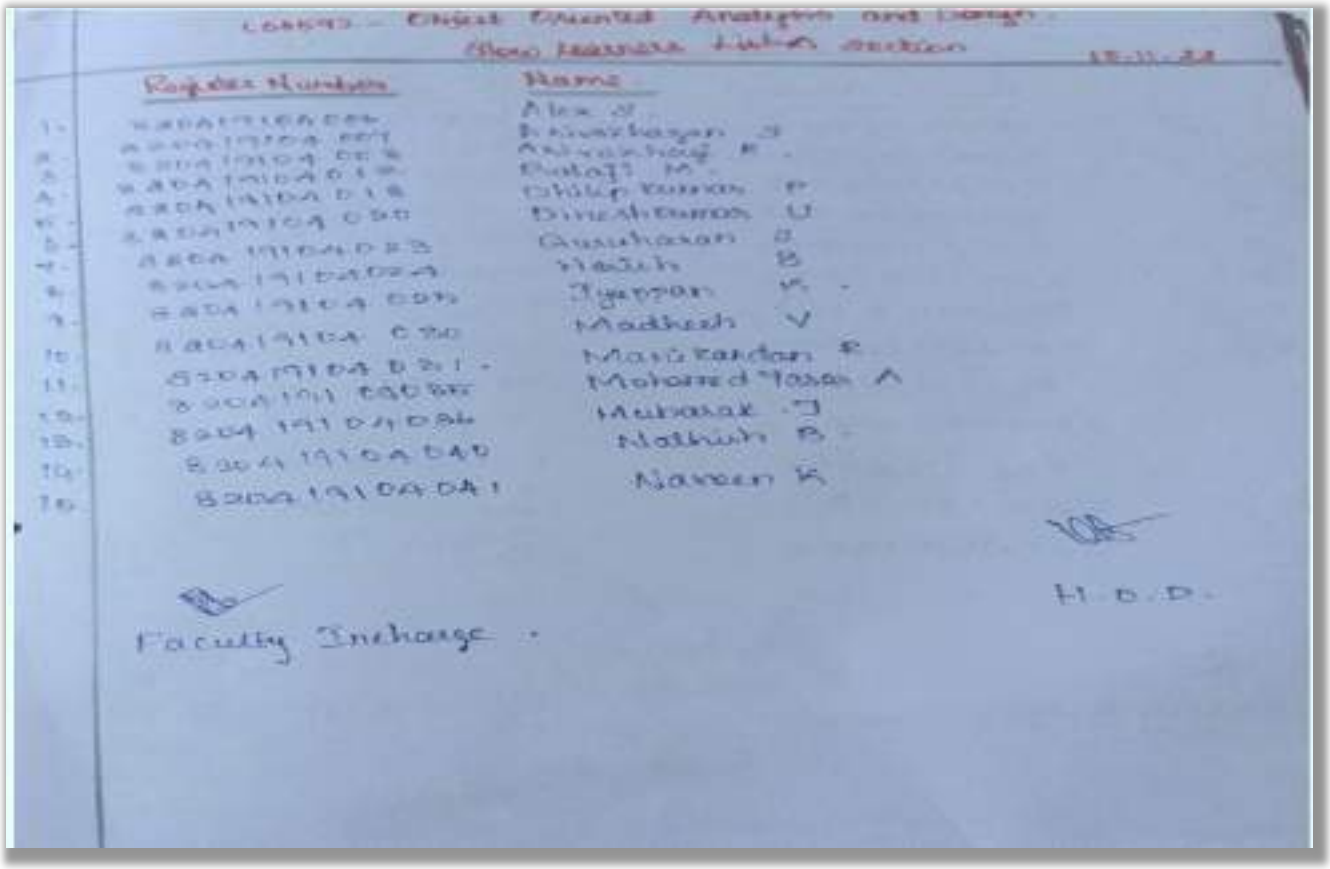
HOD-CSE

Head of the Department
Department of Computer Science and Engineering
Anjalai Ammal - Mahalingam Engineering Colle...
Kovilvenni 614 403 Thiruvarur Dt



IV CSE A

S.No.	Traits	Identifier	Name List
1.	One has ability to learn but takes longer time to grasp new concepts	Course Instructor	820418104002-Abinesh. P
2.	One is not self-confident and gives up quickly	Course Instructor/ Class Coordinator	820418104011-Gokilavanan. T
3.	One has short memory and don't remember what has been taught to them in class	Course Instructor	820418104013-Deepak P
4.	One has poor communication skills and writing skills	Course Instructor/ Class Coordinator	820418104009-Aravi. T
5.	He/She is an experiential learner	Course Instructor	820418104006-Abishek. M
6.	One is irregular to the classes	Course Instructor	820418104034-Kumaleshan. K
7.	One has poor academic background at the entry to the programme and do not perform well in initial tests	Course Instructor/ Class Coordinator	Nil

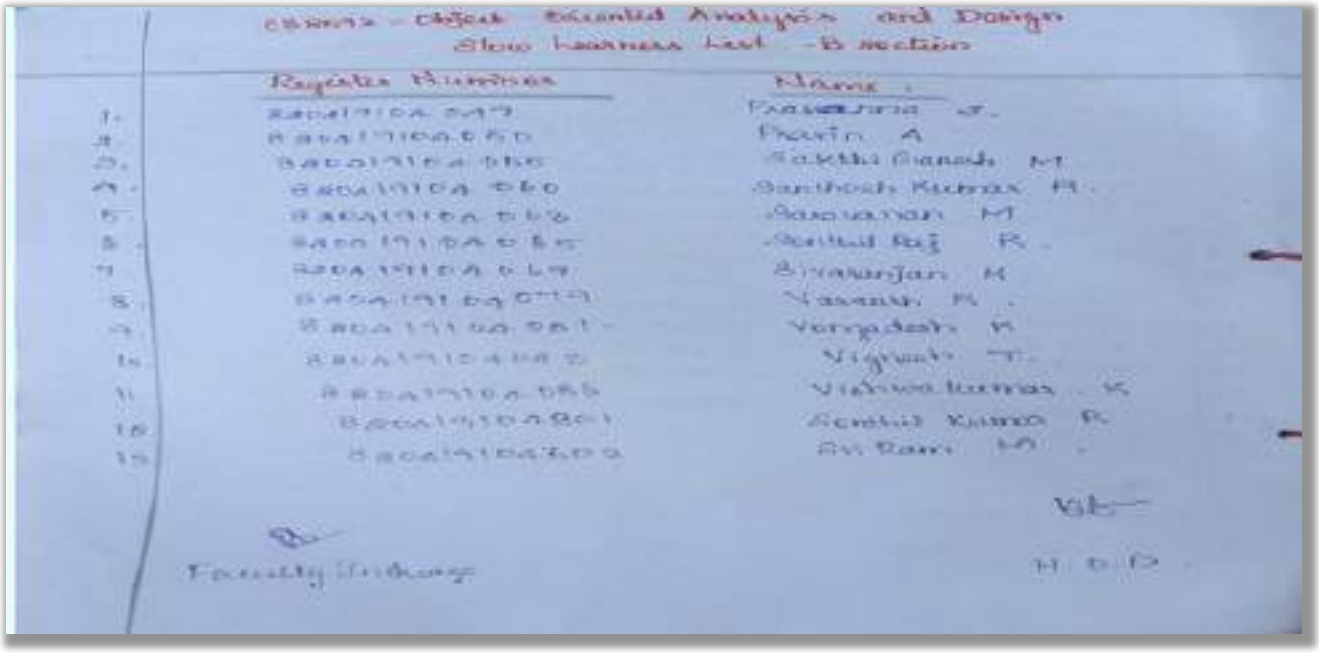


Regular Mentees

	Register Number	Name
1.	820418104001	Alex J
2.	820418104002	Balasubramanian S
3.	820418104003	Ashwinkumar K
4.	820418104004	Balaji M
5.	820418104005	Dhilip Kumar P
6.	820418104006	Dineshkumar U
7.	820418104007	Gowtharan S
8.	820418104008	Hasik B
9.	820418104009	Jayaprakash K
10.	820418104010	Madhesh V
11.	820418104011	Manikandan E
12.	820418104012	Mohamed Yasar A
13.	820418104013	Mubarak J
14.	820418104014	Nathish B
15.	820418104015	Naveen K

Faculty Incharge

H.O.D.

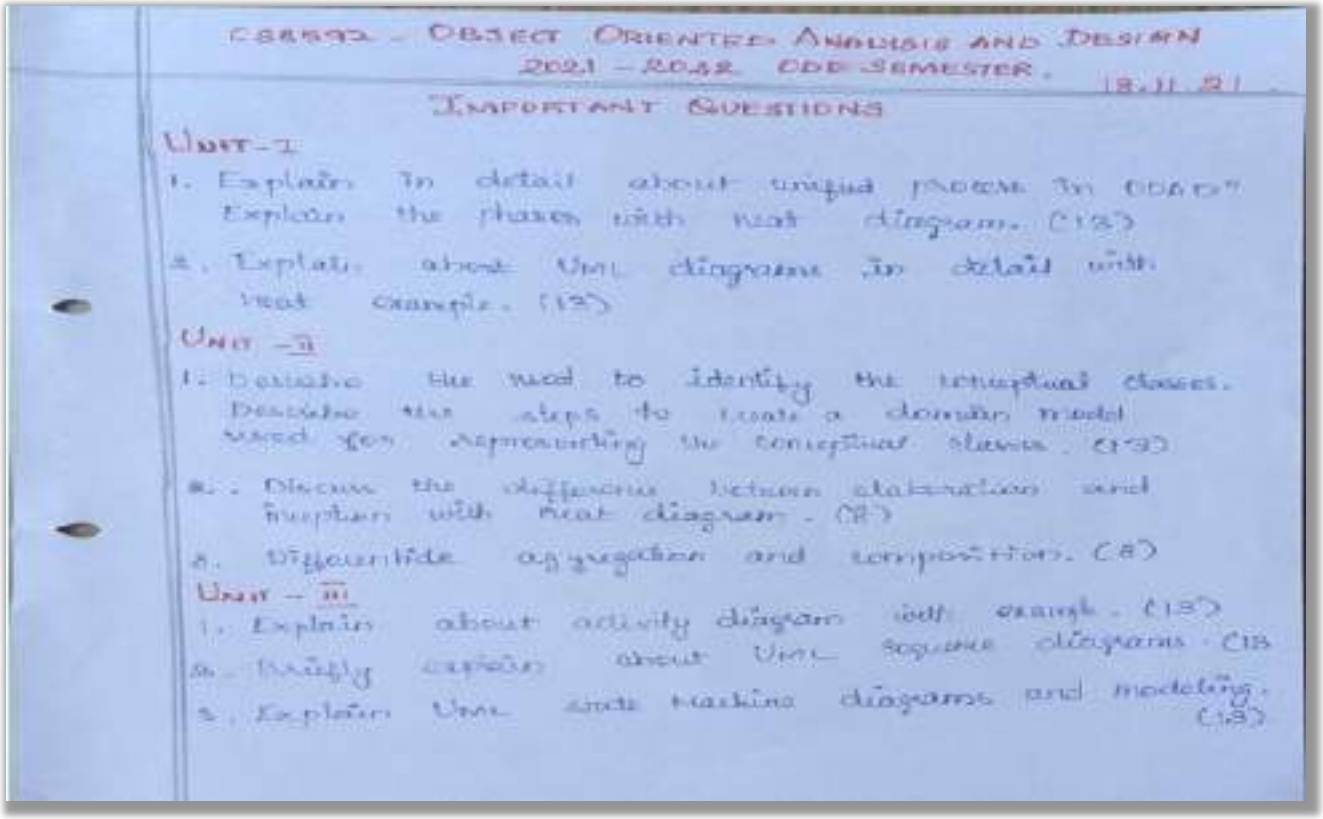

CS8592 - Object Oriented Analysis and Design
Slow learners list - B section

	Register Number	Name
1.	2[illegible]073	Pa[illegible]ra J.
2.	2[illegible]6	Pavin A
3.	2[illegible]6	Sakthi Ganesh M
4.	2[illegible]6	Santhosh Kumar R.
5.	2[illegible]6	Saravanan M
6.	2[illegible]6	Sathul Raj R.
7.	2[illegible]6	Sivaranjan M
8.	2[illegible]6	Vasanth R.
9.	2[illegible]6	Vengadesh M
10.	2[illegible]6	Vignesh T.
11.	2[illegible]6	Vishnukumar K
12.	2[illegible]6	Yoganiti Kumar R.
13.	2[illegible]6	Ayyappan M.

Faculty In-charge

H o D

Important Questions


CS8592 - OBJECT ORIENTED ANALYSIS AND DESIGN
2021 - 2022 ODD SEMESTER. 18.11.21

IMPORTANT QUESTIONS

UNIT - I

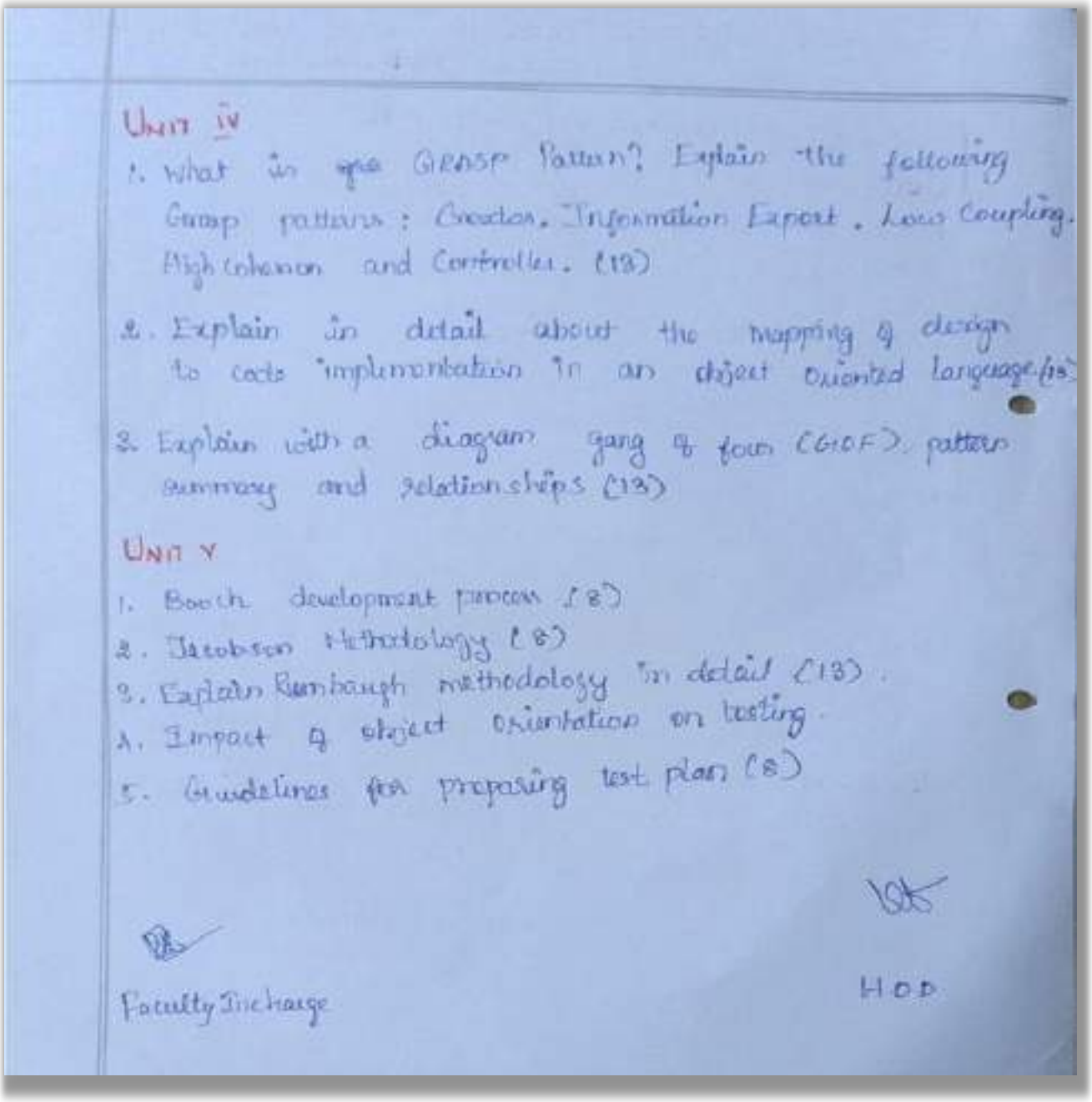
1. Explain in detail about unified process in OOAD? Explain the phases with neat diagram. (13)
2. Explain about Use diagrams in detail with neat example. (13)

UNIT - II

1. Describe the need to identify the conceptual classes. Describe the steps to create a domain model used for representing the conceptual classes. (13)
2. Discuss the difference between elaboration and inception with neat diagram. (8)
3. Differentiate aggregation and composition. (8)

UNIT - III

1. Explain about activity diagram self example. (13)
2. Briefly explain about Use sequence diagrams. (13)
3. Explain Use state machine diagrams and modeling. (13)



UNIT IV

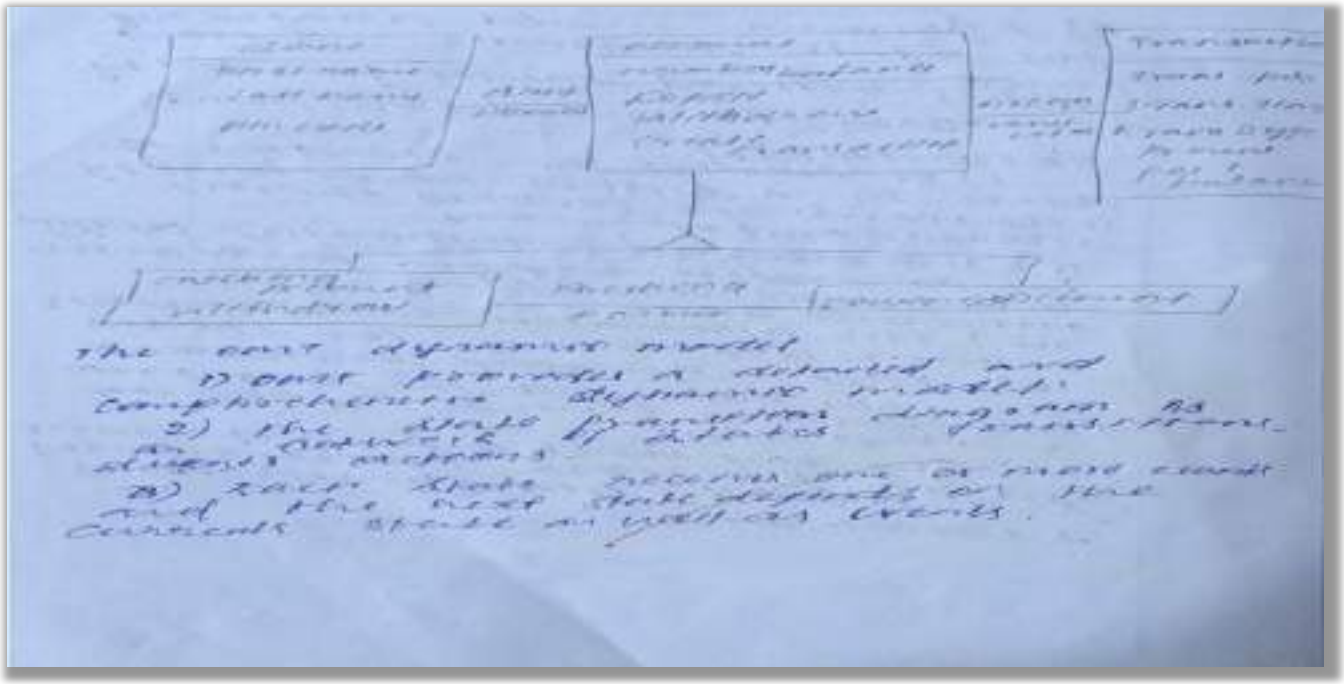
1. What is the GRASP Pattern? Explain the following Grasp patterns : Creator, Information Expert, Low Coupling, High Cohesion and Controller. (13)
2. Explain in detail about the mapping of design to code implementation in an object oriented language. (13)
3. Explain with a diagram gang of four (GOF) pattern summary and relationships (13)

UNIT V

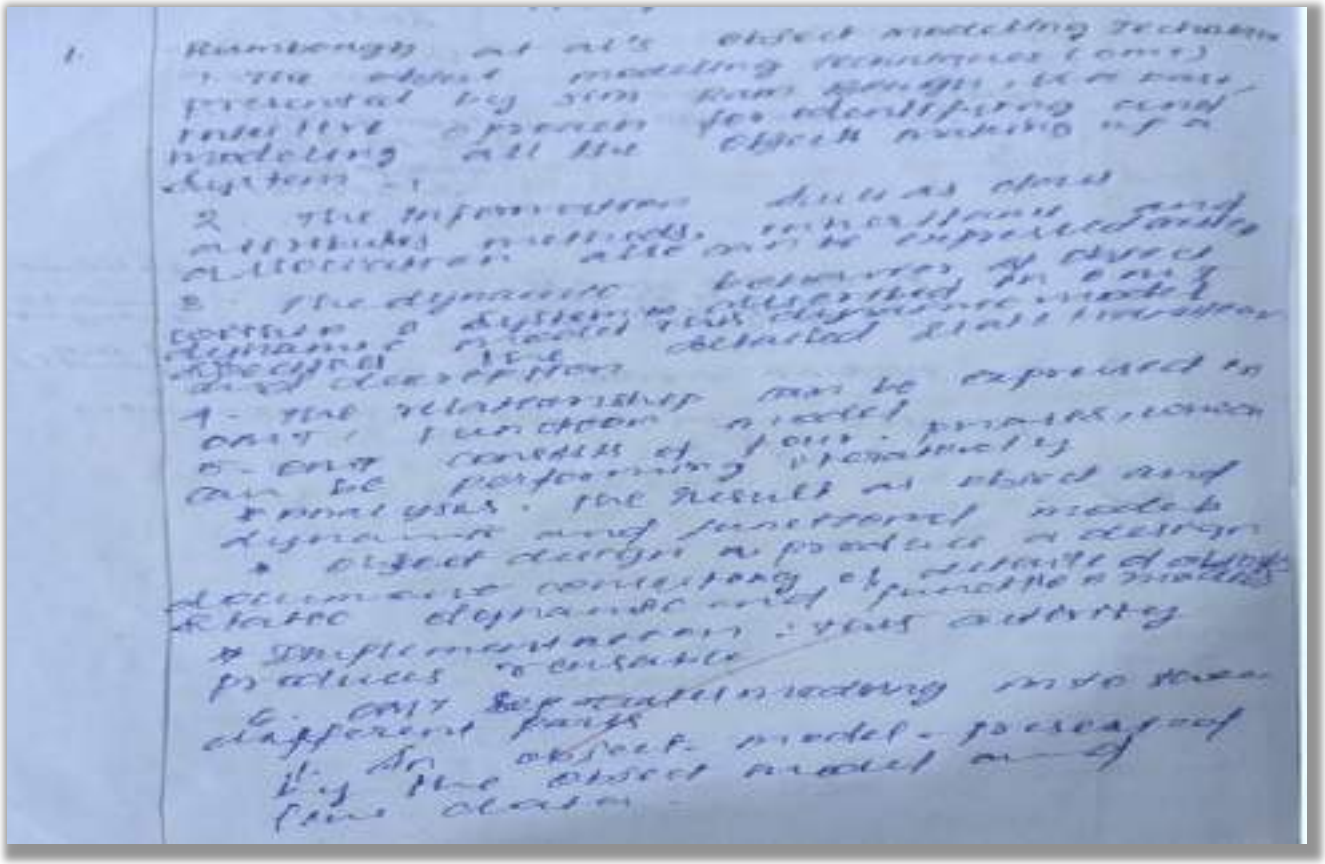
1. Booch development process (8)
2. Jacobson Methodology (8)
3. Explain Rumbaugh methodology in detail (13).
4. Impact of object orientation on testing.
5. Guidelines for preparing test plan (8)

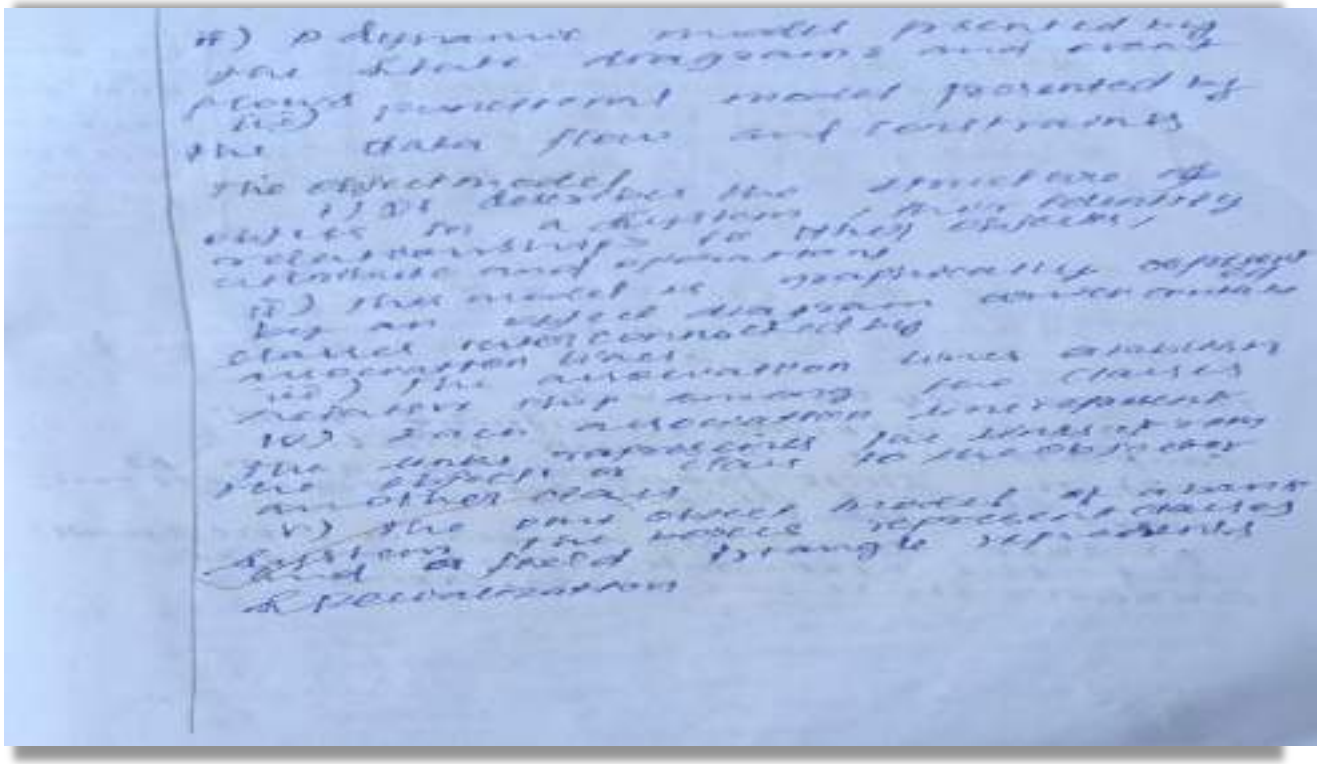
Faculty Incharge

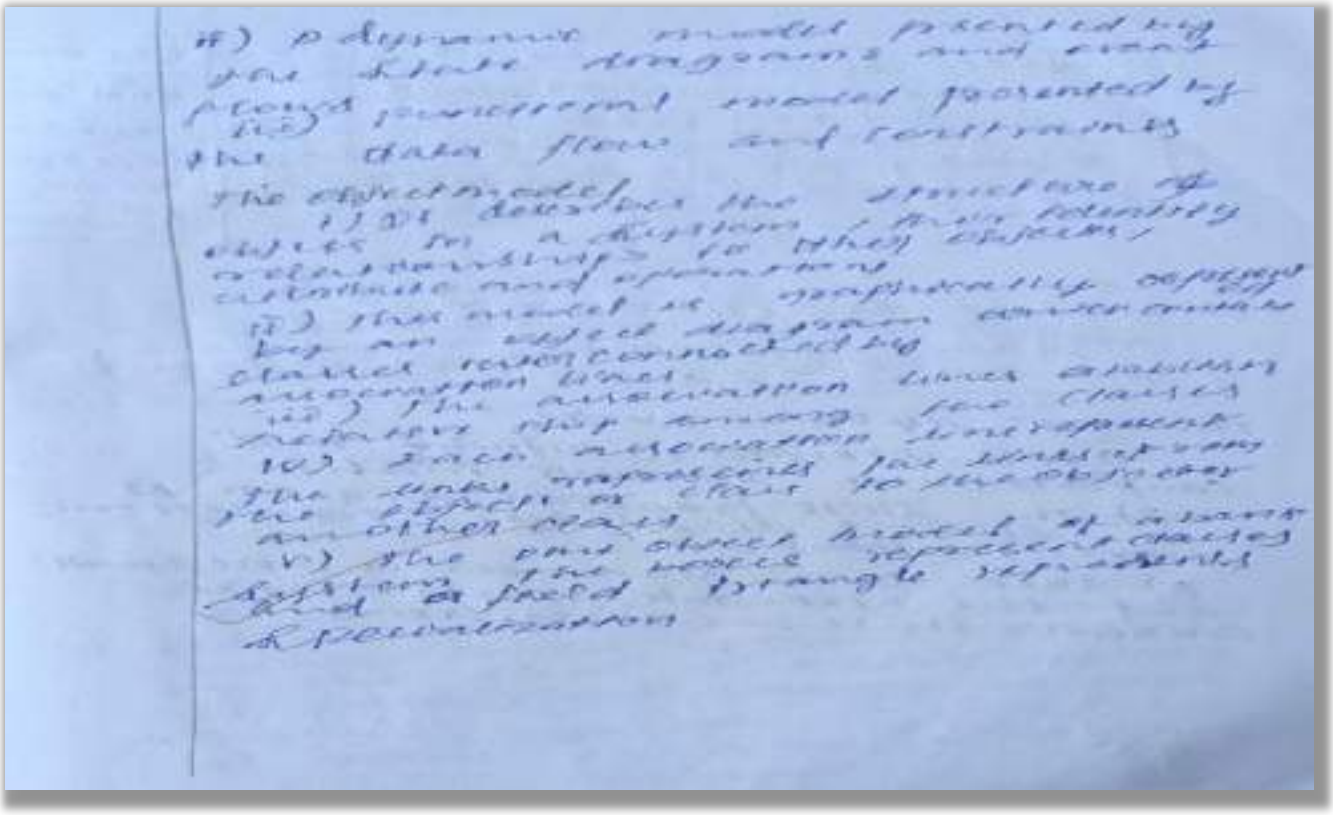
HOD

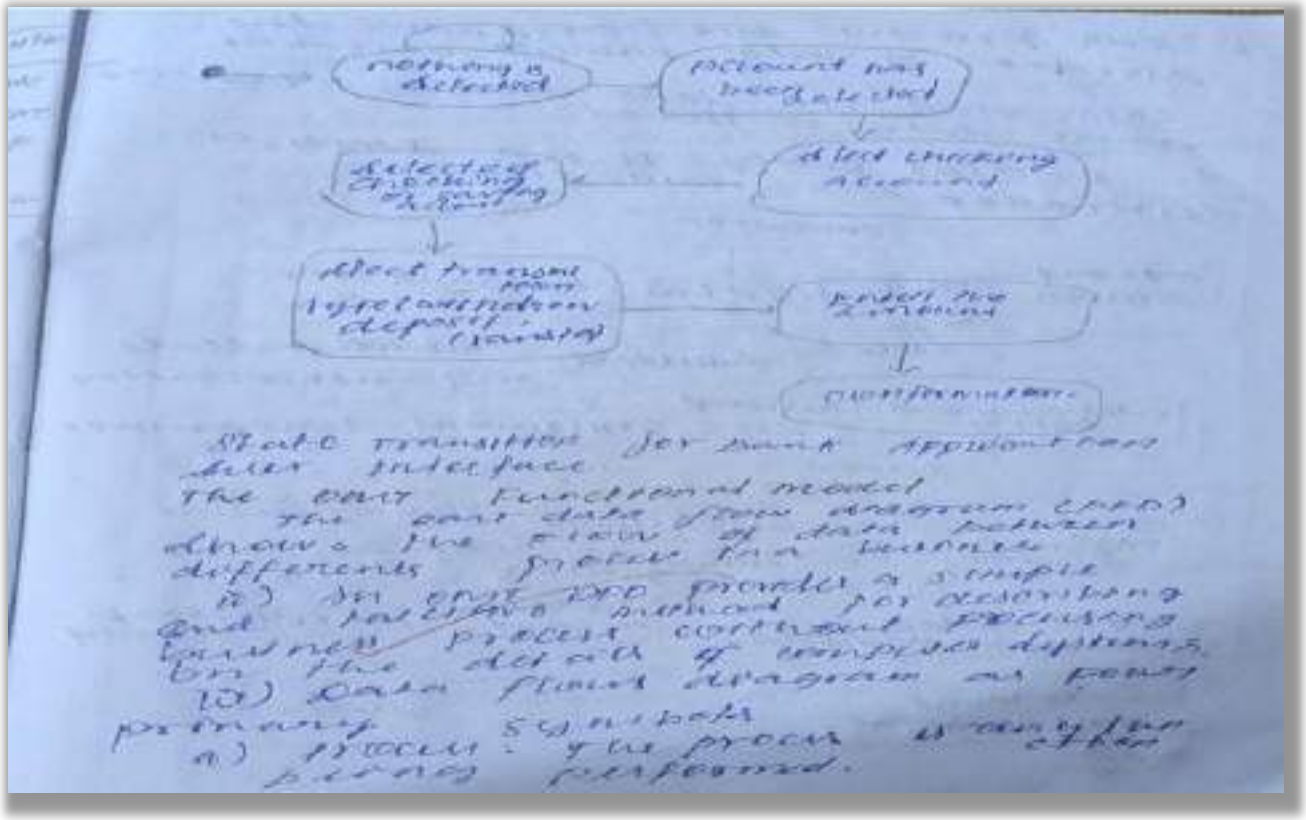


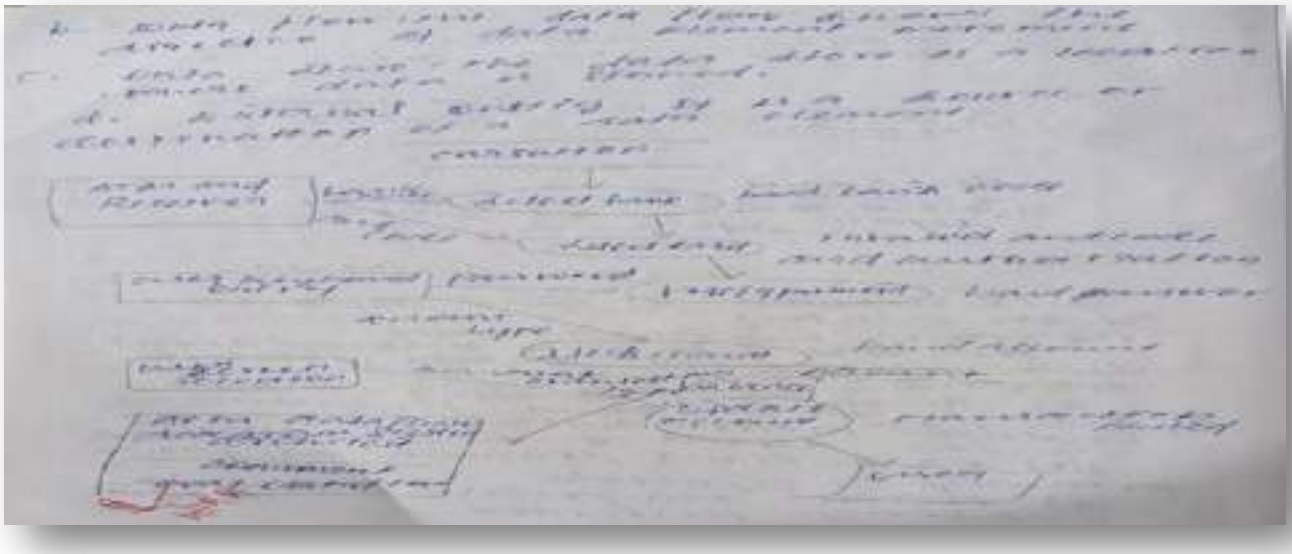
Practice for Slow Learners











Number of Students Trained Online and Certified & Number of Faculty members Trained in FDP

Sl. No.	Department	Number of Students Trained Online and Certified	Number of Faculty members Trained in FDP and Certified	Duration (month, Year)
1	Computer Science and Engineering	70	12	Jan to june,2020
2	Computer Science and Engineering	200	12	July to Dec,2020
3	Computer Science and Engineering	225	NIL	Jan to June,2021
4	Computer Science and Engineering	207	11	July to Dec,2021
5	Computer Science and Engineering	28	9	July to Dec 2023

Benefits of the Training

Students can be trained on Emerging Technologies and to meet out Industrial Expectations. Faculty members can also be trained on emerging courses with E-certificates.

Circuit branch students can be trained on

Python,Java, C++ and Linux Courses

Self Learning

Most of the courses in Spoken Tutorial are Job and Skills oriented

Activities conducted for advanced learner

- NPTEL and online courses
- Seminars workshop
- Additional assignments and tasks
- GATEquestions and materials

Academic Center of IIT BOMBAY– Spoken Tutorial Program

Anjalai Ammal Mahalingam Engineering College is an approved **Academic Center of IIT BOMBAY– SpokenTutorial Program** since January 2020. The Program is a part of the National Mission on Education through ICT, MHRD and Govt. of India. E-certificates were issued for the students and faculty members by IIT Bombay Spoken Tutorial – National Coordinator.

Faculty Member Certificate (Sample)



Spoken Tutorial Project at IIT Bombay

Certificate of Participation

NATIONAL MISSION ON TEACHERS AND TEACHING

This is to certify that **FARJANA FARVIN S** has participated in **Faculty Development Programme** from **2020-12-14** to **2020-12-26** on **Moodle Learning Management System** organized by **Anjalai Ammal Mahalingam Engineering College** with course material provided by Spoken Tutorial Project, IIT Bombay.

Prof. Kannan M Moudgalya
IIT Bombay

Spoken Tutorial is a project at IIT Bombay, started with funding from the National Mission on Education through ICT, Ministry of Education (previously MHRD), Govt. of India

Student GATE

Sl. No.	Year	Names of students participated / qualified	GATE/ Other examinations
1	2017	S.KAVIYA	GATE
2	2019	POORNIMADEVI	GATE
3	2020	ABARNA.N	GATE
4	2020	AKCSHAYA.T.K	GATE
5	2021	PRADEEPA V	GATE
6	2019	SUBHALAKHMI B	POSTAL DEPT
7	2021	SADHANA.S	POSTAL DEPT
8	2021	PREETHI R	POSTAL DEPT
9	2021	VENKATESHWARAN.M	POSTAL DEPT
10	2023	NIVEDHA K	GATE
11	2023	NUHA G	GATE
12	2024	DIVYAPRABHA	GATE
13	2024	RAKSHANAA V	GATE
14	2024	VINOTH KUMAR S	GATE

Student GATE scord Card (Sample)



GATE 2017 Result

Name

S.KAVIYA

Registration Number

CS17S67095079

Gender

Female

Examination Paper

Computer Science and Information Technology (CS)

Signature

Marks out of 100* 17.70

All India Rank in this paper 22290

Qualifying Marks** General 25.00 | OBC (NCL) 22.50 | SC/ST/PwD 16.60

GATE Score 268

* Normalized marks for multisession papers (CE, CS, EC, EE, ME)

** A candidate is considered qualified if the marks secured are greater than or equal to the qualifying marks mentioned for the category for which a valid Category Certificate, if applicable, is produced along with this scorecard.

Note:

- The marks and score provided here are for information only.
- An electronic or paper copy of this document is not valid for admission.
- The official GATE 2017 Score Card can be downloaded from the GOAPS site between March 26, 2017 and May 31, 2017 by the qualified candidates only.



Name
V.PRADEEPAA
Registration Number
CS21S57333164
Gender
Female
Parent's/Guardian's name
V.RAMYA
Date of birth
17-June-2000
Examination Paper
Computer Science and Information Technology (CS)
Marks out of 100*
14.73
Qualifying Marks**
26.1 General
23.4 OBC (NCL)/EWS
17.4 SC/ST/PwD
* Normalized marks for multisession papers

In order to inculcate the self-learning process, initiatives are taken to make the students to be members of professional organizations and Societies. The following number of students is members of ISTE

S.No.	Year	No of Students
1.	2023-2024	146
2.	2022-2023	139
3.	2021-2022	109
4.	2020-2021	29
5.	2019-2020	51
6.	2018-2019	29

List of Events organized by ISTE student Chapter, AAMEC

S.No	Date	Description	No of participants
Academic year 2022-2023			
1	28.05.2022	**Guest lecture "Opportunities of python in**	**100**

		Industries " Resource person: Mr.S.Senthil kumar, Senior software Engineer **,** **TATA consultancy services**	
2	15.09.2022	**Guest lecture** - "**How to be a successful Engineer"** Resource person: Mr.P.Vignesh Senior software Engineer, EPAM systems. Mr.S.Surender, Member Technical staff , HCL Technologies	**100**
3	01.04.2023	**Technical Quiz** Preliminary- written test I & II -wipe out round III – Connection round (Technical) IV- Rapid fire round (Technical)	No. of teams -29
4	29.04.2023	**Poster Competition** Theme : Energy Revolution Addiction of Mobile phone	20
5	17.02.2023	**National Level ISTE-Srinivasa Ramanugan Mathematical competition 22-23** Chapter level examination -11.03.2023 (86 students) State level examination -25.03.2023 (17 students) National level examination -01.04,2023 (7 students)	86
Academic year 2023-2024			
1	21.02.2024	**Guest Lecture** "**Creating Kaveri beneath our feet: Transformations of Deltaic Environments**" Andres Verzijl Sr. Lect. in Water, Urbanization & Climate Justice, IHE, The Netherlands	85

Details of NPTEL courses done by students

S.No.	Name of the student	Course Name	Academic Year	Final Score	Certificate Type
1.	R.Pugazhini	The Joy of Computing UsingPython	Jul-Dec 2023	73	Elite
2.	M.Abiya	The Joy of Computing UsingPython	Jul-Dec 2023	70	Elite

3.	R.Devadharshini	The Joy of Computing UsingPython	Jul-Dec 2023	66	Elite
4.	V.Divya Bharathi	The Joy of Computing UsingPython	Jul-Dec 2023	65	Elite
5.	R.Kaviya	Data Structures and AlgorithmsUsing Java	Jul-Dec 2023	69	Elite
6.	Monisha.N	Database Management System	Jul-Dec 2023	70	Elite
7.	Devadharshini.P	Database Management System	Jul-Dec 2023	64	Elite
8.	Kasthuri.T	Database Management System	Jul-Dec 2023	67	Elite
9.	Charumathi.V	Python for Data Science	Jul-Dec 2023	54	Successfully Completed
10.	Srikavi.K	Python for Data Science	Jul-Dec 2023	69	Elite
11.	Vinoth Kumar.S	Python for Data Science	Jul-Dec 2023	72	Elite
12.	V.Harish	Programming ,Data Structures and Algorithms using Python	Jan-July2023	57	Successfully completed
13.	R.Vignesh	Data Analytics with Python	Jan-July2023	66	Elite
14.	K.Vijay	Data Analytics with Python	Jan-July2023	55	Successfully completed
15.	K.Sweetha	Data Analytics with Python	Jan-July2023	66	Elite
16.	M.Abiya	Programming in Java	Jan-July2023	57	Successfully completed
17.	S.Meenalochani	Data Analytics with Python	Jan-July2023	65	Elite
18.	S.Kuralarasi	Data Analytics with Python	Jan-July2023	69	Elite
19.	V.Shrivaishnavi	Data Analytics with Python	Jan-July2023	76	Elite
20.	R.Kaviya	Programming in Java	Jan-July2023	60	Elite
21.	P.Srivaishali	Data Analytics with Python	Jan-July2023	64	Elite
22.	R.Shalini	Data Analytics with Python	Jan-July2023	54	Successfully completed

23.	M.Rudhra	Data Analytics with Python	Jan-July2023	77	Elite+Silver
24.	K.Srikavi	Data Analytics with Python	Jan-July2023	67	Elite
25.	R.Devadharshini	Programming in Java	Jan-July2023	64	Elite
26.	K.R.Ganesh	The Joy of Computing using Python	Jan-July2023	78	Elite+Silver
27.	A.Abinesh	The Joy of Computing using Python	Jan-July2023	91	Elite+Gold (Topper)
28.	R.Nandhini	The Joy of Computing using Python	Jan-July2023	78	Elite+Silver
29.	A.Shwetha	Introduction to Machine Learning	July-Dec2022	44	Sucessfully Completed
30.	S.Vinoth Kumar	Introduction to Machine Learning(Tamil)	July-Dec2022	75	Elite+Silver
31.	S.Vinoth Kumar	Introduction to Machine Learning(Tamil)	July-Dec2022	63	Elite
32.	T.Thirumullai	Introduction to Machine Learning(Tamil)	July-Dec2022	66	Elite
33.	V.Shrivaishnavi	Python for Data Science	July-Dec2022	63	Elite
34.	A.Abinesh	Introduction to Machine Learning(Tamil)	July-Dec2022	49	Sucessfully Completed
35.	V.Harish	Introduction To Machine Learning(Tamil)	July-Dec2022	65	Elite
36.	K.Vijay	Data Structures and Algorithm Using Java	July-Dec2022	70	Elite
37.	R.Vignesh	Data Structures and Algorithm Using Java	July-Dec2022	55	Sucessfully Completed
38.	N.Ambalavanan	Programming In Java	July-Dec2022	78	Elite+Silver
39.	V.Harish	Programming in Java	Jan-July2022	88	Elite+Silver
40.	S.Nagendran	Programming in Java	Jan-July2022	58	Sucessfully Completed
41.	K.R.Ganesh	Programming in Java	Jan-July2022	77	Elite+Silver
42.	A.Abinesh	Programming in Java	Jan-July2022	88	Elite+Silver
43.	T.Varsha	Programming in Java	Jan-July2022	76	Elite+Silver
44.	V.Rakshanaa	Programming, Data structure and Algorithm Using Python	Jan-July2022	70	Elite

45.	T.Kasthuri	Programming in Java	Jan-July2022	78	Elite+Silver
46.	N.Monisha	Programming in Java	Jan-July2022	91	Elite+Gold (Topper)
47.	T.Thirumullai	Programming in Java	Jan-July2022	87	Elite+Silver
48.	A.Shwetha	Programming in Java	Jan-July2022	81	Elite+Silver
49.	B.Rubavarshini	Programming in Java	Jan-July2022	79	Elite+Silver
50.	S.Vinoth Kumar	Database Management System	Jan-July2022	66	Elite
51.	S.Vinoth Kumar	Programming in Java	Jan-July2022	90	Elite+Gold(Topper)
52.	S.Vinoth Kumar	Database Management System	Jan-July2022	60	Elite
53.	S.Vinoth Kumar	Programming in Java	Jan-July2022	86	Elite+Silver
54.	Shrivaishnavi V	The Joy of Computing using Python	Jan-July2022	78	Elite+Silver
55.	S.Meenalochani	The Joy of Computing using Python	Jan-July2022	70	Elite
56.	Vinoth Kumar S	Programming in Java	Jan-April2022	90	Elite+Gold *(Topper of 5% in this course)*
57.	Monisha N	Programming in Java	Jan-April2022	91	Elite+Gold *(Topper of 5% in this course)*
58.	Vinoth Kumar S	Programming in Java	Jan-April2022	86	Elite+Silver
59.	Vinoth Kumar S	Database Management Systems	Jan-April2022	66	Elite
60.	Vinoth Kumar S	Database management Systems	Jan-April2022	61	Elite
61.	Harish V	Programming in Java	Jan-April2022	88	Elite+Silver
62.	A.Abinesh	Programming in Java	Jan-April2022	88	Elite+Silver
63.	K.R.Ganesh	Programming in Java	Jan-April2022	77	Elite+Silver
64.	S.Nagendran	Programming in Java	Jan-April2022	58	Elite+Silver

65.	B.Rubavarshini	Programming in Java	Jan-April2022	79	Elite+Silver
66.	A.Shwetha	Programming in Java	Jan-April2022	81	Elite+Silver
67.	T.Thirumullai	Programming in Java	Jan-April2022	87	Elite+Silver
68.	T.Kasthuri	Programming in Java	Jan-April2022	78	Elite+Silver
69.	V.Rakshana	Programming Data structures and algorithms using Python	Jan-April2022	70	Elite
70.	S.Subashini	Programming Data structures and algorithms using Python	Jan-April2022	61	Elite
71.	Vinoth Kumar S	Problem solving through Programming In C - online	July-Dec 2021	88	Elite+Silver *(Topper of5% in this course)*
72.	Vinoth Kumar S	Problem solving through Programming In C - online	July-Dec 2021	85	Elite+Silver
73.	Abinesh A	Problem solving through Programming In C - online	July-Dec 2021	82	Elite+Silver
74.	Rakshanaa V	Problem solving through Programming In C - online	July-Dec 2021	80	Elite+Silver
75.	Monisha N	Problem solving through Programming In C - online	July-Dec 2021	78	Elite+Silver
76.	Thirumullai T	Problem solving through Programming In C - online	July-Dec 2021	78	Elite+Silver
77.	Shwetha A	Problem solving through Programming In C - online	July-Dec 2021	77	Elite+Silver
78.	Ganesh K R	Problem solving through Programming In C - online	July-Dec 2021	75	Elite+Silver
79.	Harish V	Problem solving through Programming In C - online	July-Dec 2021	75	Elite+Silver
80.	Kasthuri T	Problem solving through Programming In C - online	July-Dec 2021	71	Elite
81.	Subashini S	Problem solving through Programming In C - online	July-Dec 2021	70	Elite
82.	Vishnu Priya S	Problem solving through Programming In C - online	July-Dec 2021	69	Elite
83.	Vijay K	Problem solving through Programming In C - online	July-Dec 2021	65	Elite

84.	Nagendran S	Problem solving through Programming In C - online	July-Dec 2021	60	Elite
85.	Sailesh S	Problem solving through Programming In C - online	July-Dec 2021	60	Elite
86.	Peararulselvi.S	Cloud Computing	Jan-April 2021	57	Successfully Completed
87.	V.Pradeepaa	Enhancing Soft Skills and Personality	July-Dec 2020	86	Elite+Silver
88.	Nusrath Jahan A.B	Programming in Java	July-Dec 2020	83	Elite+Silver
89.	Harish V	Problem solving through Programming In C - online	July-Dec 2021	75	Elite+Silver
90.	Kasthuri T	Problem solving through Programming In C - online	July-Dec 2021	71	Elite
91.	Subashini S	Problem solving through Programming In C - online	July-Dec 2021	70	Elite
92.	Vishnu Priya S	Problem solving through Programming In C - online	July-Dec 2021	69	Elite
93.	Vijay K	Problem solving through Programming In C - online	July-Dec 2021	65	Elite
94.	Nagendran S	Problem solving through Programming In C - online	July-Dec 2021	60	Elite
95.	Sailesh S	Problem solving through Programming In C - online	July-Dec 2021	60	Elite
96.	Peararulselvi.S	Cloud Computing	Jan-April 2021	57	Successfully Completed
97.	V.Pradeepaa	Enhancing Soft Skills and Personality	July-Dec 2020	86	Elite+Silver
98.	Nusrath Jahan A.B	Programming in Java	July-Dec 2020	83	Elite+Silver
99.	M.Subasri	Problem Solving Through Programming in C	July-Dec 2020	45	Successfully Completed
100.	M.Subasri	Programming in Java	July-Dec 2020	69	Elite
101.	Ragamaliga.P	Programming in Java	July-Dec 2020	74	Elite
102.	R.Vasanth	Problem Solving Through Programming in C	Jan–April2020	51	Modified Pass Certificate

103.	R.Ramkumar	Problem Solving Through Programming in C	Jan–April2020	46	Modified Pass Certificate
104.	M.Vinoth Kumar	Problem Solving Through Programming in C	Jan–April2020	99	Modified Pass Certificate
105.	S.Sudharsan	Problem Solving Through Programming in C	Jan–April2020	79	Modified Pass Certificate
106.	R.Nithyasree	Problem Solving Through Programming in C	Jan–April2020	63	Modified Pass Certificate
107.	M.Subasri	Problem Solving Through Programming in C	Jan–April2020	50	Modified Pass Certificate
108.	Venkadasubramanian.D	Problem Solving Through Programming in C	Jan–April2020	80	Modified Pass Certificate
109.	Samyukthasri	Problem Solving Through Programming in C	Jan–April2020	94	Modified Pass Certificate
110.	Alex S	Problem Solving Through Programming in C	Jan–April2020	92	Modified Pass Certificate
111.	Iyappan K	Problem Solving Through Programming in C	Jan–April2020	41	Modified Pass Certificate
112.	Veerenthiran.S	Problem Solving Through Programming in C	Jan–April2020	47	Modified Pass Certificate
113.	Nandhini V	Problem Solving Through Programming in C	Jan–April2020	99	Modified Pass Certificate
114.	Sathaya Jayasri S	Problem Solving Through Programming in C	Jan–April2020	45	Modified Pass Certificate
115.	A.B.Gayathri	Problem Solving Through Programming in C	Jan–April2020	67	Modified Pass Certificate
116.	Vijithra.P	Problem Solving Through Programming in C	Jan–April2020	66	Modified Pass Certificate

117.	Sivanandhini R	Problem Solving Through Programming in C	Jan–April2020	66	Modified Pass Certificate
118.	Peararulselvi.S	Problem Solving Through Programming in C	Jan–April2020	50	Modified Pass Certificate
119.	Jaya Prabha.G	Programming in Java	Jan–April2020	98	Modified Pass Certificate
120.	Atchaya.R	Programming in Java	Jan–April2020	96	Modified Pass Certificate
121.	Monica T	Programming in Java	Jan–April2020	99	Modified Pass Certificate
122.	Ragamaliga.P	Programming in Java	Jan–April2020	88	Modified Pass Certificate
123.	Nusrath Jahan A.B	Programming in Java	Jan–April2020	98	Modified Pass Certificate
124.	A.K.Divyadharani	An introduction to Artificial Intelligence	Jan–April2020	59	Modified Pass Certificate



This certificate is computer generated and can be verified by scanning the QR code given below.

Roll No: NPTEL22CS47S34480796

To,
MONISHA N
27,BAYPAL GARDEN
KEELA VANDIKARA STREET
THANJAVUR
TAMILNADU - 613001
PH. NO: 8888888871

Score	Type of Certificate
>=80	Elite+Gold
75-80	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL: 3

Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

MONISHA N

for successfully completing the course

Programming In Java

with a consolidated score of 91 %

Online Assignments	25/25	Programming Exam	25/25	Proctored Exam	41/50

Total number of candidates certified in this course: 4814

Prof. Jayanta Mukhopadhyay
Dept. of Computer Science and Engineering
IIT Kharagpur

Jan-Apr 2022
(12 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL22CS47S34480796

To validate and check scores: https://nptel.ac.in/noc

S.VinothKumar (II Year CSE student) got Topper Award in Problem Solving through Programming inC NPTEL Course.



This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository. https://nptel.ac.in/noc/

Roll No: NPTEL21CS54S14466384

To,
VINOTH KUMAR S
[illegible]

Score	Type of Certificate
>=80	Elite+Gold
75-80	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL: 3

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

VINOTH KUMAR S

for successfully completing the course

Problem Solving through Programming in C

with a consolidated score of 88 %

Online Assignments	25/25	Programming Exam	25/25	Proctored Exam	37.5/50

Total number of candidates certified in this course: 4426

Prof. S P Ghrera
Dept. of Computer Science and Engineering
IIT Roorkee

Jul-Oct 2021
(12 week course)

Prof. Soumya Mukhopadhyay
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL21CS54S14466384

To validate and check scores: https://nptel.ac.in/noc


Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

MONISHA N

for successfully completing the course

Programming In Java

with a consolidated score of 91 %

Online Assignments	25/25	Programming Exam	25/25	Proctored Exam	41/50

Total number of candidates certified in this course: 4814

Prof. Jayanta Mukhopadhyay
Dean Outreach
IIT Kharagpur

Jan-Apr 2022
(12 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL22CS47S34480796

To validate and check scores: https://nptel.ac.in/noc

Details of NPTEL courses done by Faculty Members

Sl. No	Name of the Faculty	Course Name	Duration	Certificate
1.	G.Kalai Selvi	Python for Data Science	Jul-Dec 2023	Elite
2.	N .Vijayakrishnan	Data Science for Engineers		Elite+Silver
3.	N .Vijayakrishnan	Python for Data Science		Elite
4.	N .Vijayakrishnan	Essential Mathematics for Machine Learning		Elite
5.	N .Vijayakrishnan	Discrete Mathematics		Successfully Completed
6.	S.Farjana Farvin	Python for Data Science		Elite+Silver (Topper)
7.	S.Farjana Farvin	Deep Learning		Elite

8.	S.Farjana Farvin	Introduction to Machine Leaning		Elite
9.	S.Farjana Farvin	Natural Language Processing		Successfully Completed
10.	S.Farjana Farvin	Computer Vision		Successfully Completed
1.	Mrs.S.Farjana Farvin	Data Analytics with Python	Jan-July2023	Elite
2.	Mrs.S.Farjana Farvin	Introduction to Machine Learning(Tamil)	July-Dec2022	Elite
3.	Dr.J.Ganesh	Programming in Java	Jan-April 2022	Elite
4.	Mrs.S.Farjana Farvin	Programming in Java		Elite
5.	Mrs.S.FarjanaFarvin	Programming inJava		Elite +Silver
				Elite +Silver
6.	Mrs.P.Elakkiya	Problem Solving through Programming in C		Modified Pass Certificate
7.	Mrs.K.Karthika	Computer Networks and Internet Protocols		Modified Pass Certificate
8.	Mrs.P.Immaculate Rexi Jenifer	Computer Networks and Internet Protocols	Jan-April 2020	Modified Pass Certificate
9.	Mrs.S.FarjanaFarvin	An Introduction toArtificial Intelligence	Jan-April 2020	Modified Pass Certificate
10	Mrs.G. Kalaiselvi	Problem Solving through Programming in C		Modified Pass Certificate
11	Mrs.S.FarjanaFarvin	Deep Learning Part 1 - Online	Jul-Dec 2019	Elite+Silver
12	Mrs.P.Immaculate Rexi Jenifer	Deep Learning Part 1 - Online		Successfully Completed
13	Mr.A. Abulhasan	Theory of Computation		Successfully Completed
14	Mrs.K.Karthika			Successfully Completed

Encouragement for bright students

Sl.No.	Name of the Student	Year	CGPA	Rank
1	Sureka S	IV-CSE	8.94	I
2	Shwetha A	IV-CSE	8.82	II
3	Divya Bharathi V	IV-CSE	8.78	III
4	Monisha N	IV-CSE	8.78	III
5	Rishikesavan A	III-CSE	9.111	I
6	Ambalavanan N	III-CSE	9.085	II
7	Harish Thiyagarajan G	III-CSE	9.042	III

Students are awarded with recognitions and prizes for their performance in the academic activities as wellas general attitude in day to day activities.

Founder Merit Award

I Prize Rs.10,000

II Prize -Rs.7500

III Prize - Rs.5000

Academic Year(2022-2023)

Gold coin was awarded to students who secured 8.75 CGPA and above:

Sl.No.	Name of the Student	Year
1.	Nandhini.R	II/CSE
2.	Padmapriya.N	II/CSE
3.	Priyasri.E	II/CSE
4.	Priyanka.K	II/CSE
5.	Vilokshana.B	II/CSE
6.	Sathiya.R	II/CSE
7.	Swathi.S	II/CSE
8.	Bhuvaneswaran.G.V	II/CSE
9	Abinaya.S	II/CSE
10	Mahalakshmi.G	II/CSE

100 % Attendance Award Academic Year(2022-2023)

Sl.No.	Name of the Student	Year
1.	T.Kasthuri	IV CSE A
2.	N.Monisha	IV CSE A
3	Ashwin T	III CSE A
4	G.Swetha	III CSE A

Smart Student Award

Sl.No.	Name of the Student	Year
1.	Kasthuri T	IV CSE ' A'
2.	Thirumullai T	IV CSE ' B'
3	Prasanna V	III CSE 'A'
4	Sri Vaishali P	III CSE 'B'
5	Bhuvaneshwaran G V	II CSE 'A'
6	Mohamed Anwardeen M	II CSE 'B'

Best Outgoing Student

Sl.No	Name of theStudent	Year
1	Vinoth Kumar S	IV CSE ' B '

Academic Year(2022-2023)

Sl.No.	Name of the Student	Year	CGPA	Rank
1	V.Nandhini	IV-CSE	8.96	I
2	A.E.Deebu Rubiya	IV-CSE	8.64	II
3	S.Mohamed Thahir	IV-CSE	8.6	III
4	N.Monisha	III-CSE	8.917	I
5	S.Vinoth Kumar	III-CSE	8.5	II
6	T.Kasthuri	III-CSE	8.4	III

Gold coin was awarded to students who secured 8.75 CGPA and above:

Sl.No.	Name of the Student	Year
1.	N.Ambalavanan	II/CSE
2.	P.Dharun	II/CSE
3.	G.Harish Thiyagarajan	II/CSE
4.	I.Harshaa	II/CSE
5.	R.Kaviya	II/CSE
6.	R.Lakkshmi	II/CSE
7.	A.Rishikesavan	II/CSE
8.	V.Shiri Vaishnavi	II/CSE

Academic Year(2018-2019)

Sl.No.	Name of theStudent	Year	CGPA	Rank
1.	Poornimadevi R	IV CSE A	8.336	I
2.	Abirami R	IV CSE A	8.331	II
3.	Subhashri J	IV CSE B	8.217	III
4.	Abinaya V	III CSE A	8.838	I
5.	Abarna N	III CSE A	8.541	II
6.	Nithya Sri C	III CSE B	8.441	III

100 % Attendance Award

Academic Year(2022-2023)

Sl.No.	Name of the Student	Year
1.	T.Kasthuri	III CSE A
2.	N.Monisha	III CSE A

Academic Year(2018-2019)

Sl.No.	Name of the Student	Year
1.	Abirami R	IV CSE A
2.	Farilhutha M	IV CSE A
3.	Subhashri J	IV CSE B
4.	Aruna C	III CSE A
5.	Fahamidha Begum N M	III CSE A
6.	Ishwarya A S	III CSE A
7.	Nithyakala K	III CSE B
8.	Shobana R	III CSE B
9.	Uma Bharathy M	III CSE B
10.	Veenaa R	III CSE B

Smart Student

Sl.No.	Name of the Student	Year
1.	Mathumitha B	IV CSE A
2.	Rajarajan P	IV CSE B
3.	Jabeena A	III CSE A
4.	Veenaa R	III CSE B
5.	Nusrath Jahan A B	II CSE A
6.	Ragamaliga P	II CSE B

Best Outgoing Student

Sl.No	Name of theStudent	Year
1	Thamizh Oviyam	IV YEAR B

Learnathon Trailhead Student Championship 2018

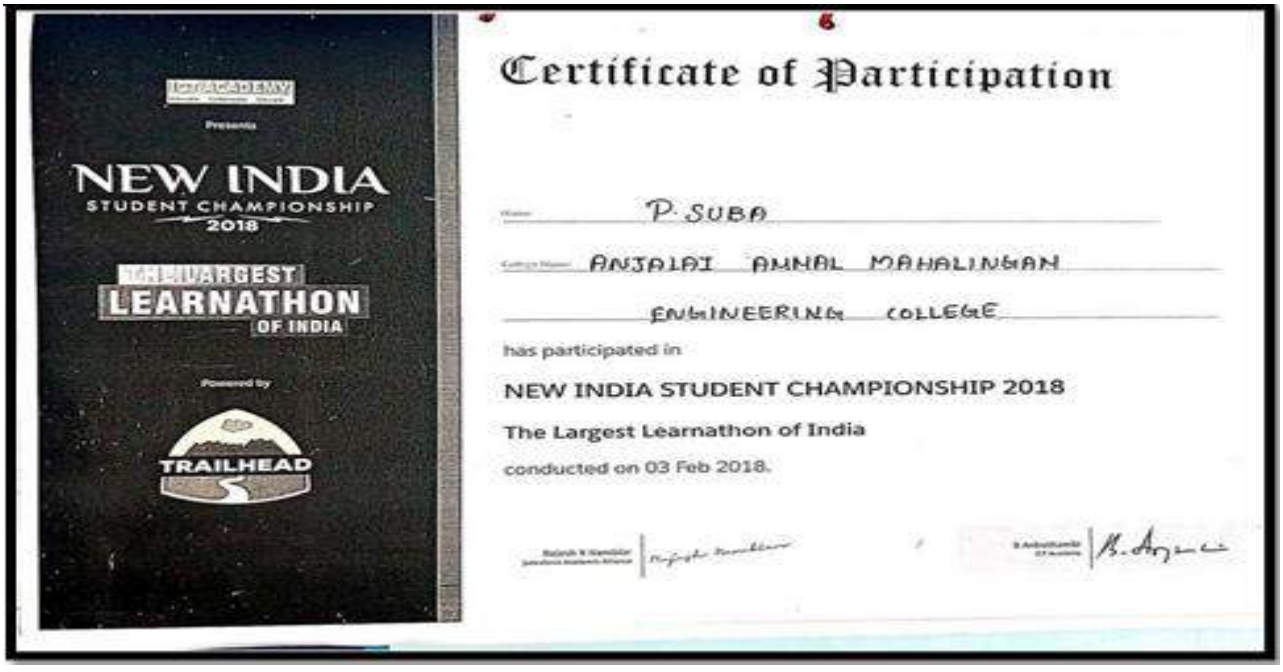
ANJALAI AMMAL-MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI - 614 403
Department Of Training and Placement Cell

Date: 03.02.2018

ICT Academy is conducted Trailhead Student Championship 2018 –The Largest Learnathon of India in February 2nd and 3rd in our college.

One Hundred Students participated in Learnathon and got Three prizes.

S.NO	NAME OF THE STUDENT	DEPARTMENT	PRIZE
1.	Vickraman S	MECH	First (Rs. 3000/-)
2.	Suresh Babu M.B	CSE	Second (Rs.2000/-)
3.	Arivarasan R	CSE	Third (Rs.1000/-)



2.2.1.Quality of internal semester Question papers, Assignments and Evaluation (20)

The Department exam cell conducts three continuous internal assessments Test in accordance with the time table set in the academic calendar. Internal Assessment Test - I and II cover two units of the syllabus and Internal Assessment Test - III covers all five units.

Maximum Marks for the Internal Assessment test I and II are 50 and internal assessment test III is 100.

Internal mark is calculated as the average of three internal assessment tests.

Each question is mapped to the corresponding CO, PO, and Blooms level and performance indicator.

Evaluation

After every internal assessment test, the faculty member evaluates the answer sheets as per the scheme and solutions. The solutions will be discussed in the class which will enable students to understand and rectify their mistakes.

The various assessment tools used to evaluate COs are listed below

Course Type Assessment Tools Theory

Internal AssessmentTests

UniversityExam

Practical

Continuous Performance

Internal Assessment for Laboratory Courses End semester practical exam

Mini Project

First Review

Second Review

Third Review

Project report,

Viva Voce and

End semester Examination

Internal Assessment Test Circular(2023-24)

ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI – THIRUVARUR (DT) PIN: 614 403
NAAC Accredited with "B" Grade
Internal Exam Cell

Internal Assessment II

Regulation 2017 IV Year & VIII Semester

DEPARTMENT	08.04.2024 FN 10.00 am To 12.00 noon	10.04.2024 FN 10.00 am to 12.00 noon
Civil Engineering	CE8020 Maintenance, Repair and Rehabilitation of Structures	GE8076 Professional Ethics in Engineering
Computer Science and Engineering	IT8073 Information Security	CS8080 Information Retrieval Techniques
Electrical and Electronics Engineering	EE8011 Electric Energy Generation, Utilization and Conservation	EE8017 High Voltage Direct Current Transmission
Electronics and Communication Engineering	EC8095 Digital Image Processing	EC8094 Satellite Communication
Mechanical Engineering	MG8591 Principles of Management	IE8693 Production Planning and Control
Chemical Engineering	MG8681 Industrial Management	CH8010 Petroleum Technology
Information Technology	CS8074 Cyber Forensics	IT8078 Web Design and Management

Prepared By: R.Manikandan, Assistant Professor, Department of Mechanical Engineering

Exam Cell Coordinator

Principal

ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI – THIRUVARUR (DT) PIN: 614 403
NAAC Accredited with "B" Grade
Internal Exam Cell

Internal Assessment I

Regulation 2021 II Year & IV Semester

Prepared By: R. Manikandan, Assistant Professor, Department of Mechanical Engineering

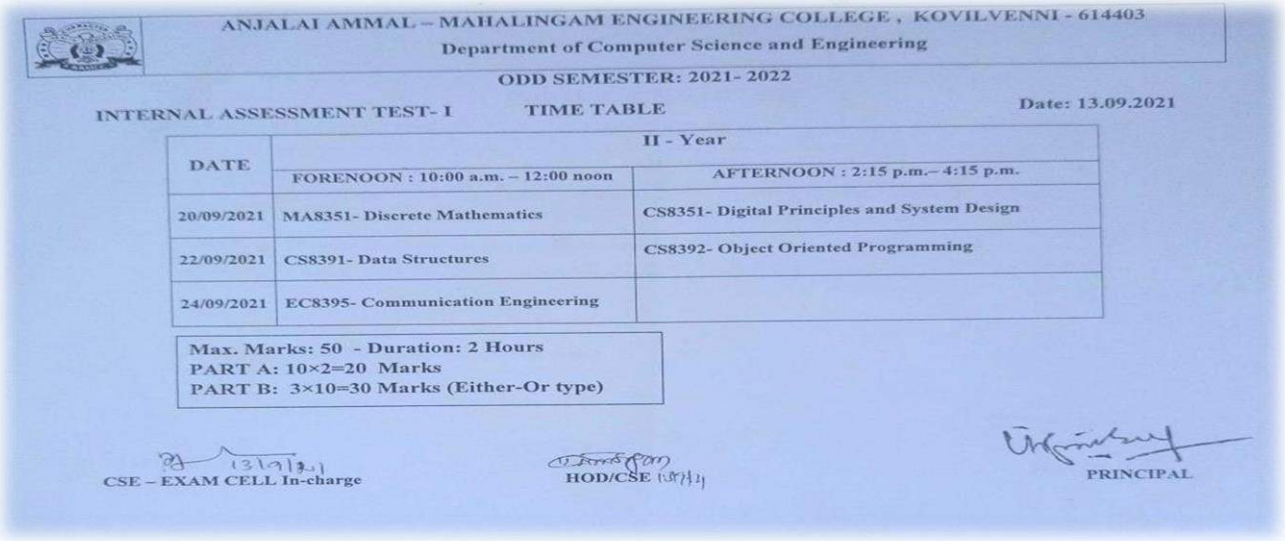
Exam Cell Coordinator

Principal

Internal Assessment Test Circular(2022-23)



Internal Assessment Test Circular(2021-22)



ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE , KOVILVENNI - 614403

Department of Computer Science and Engineering

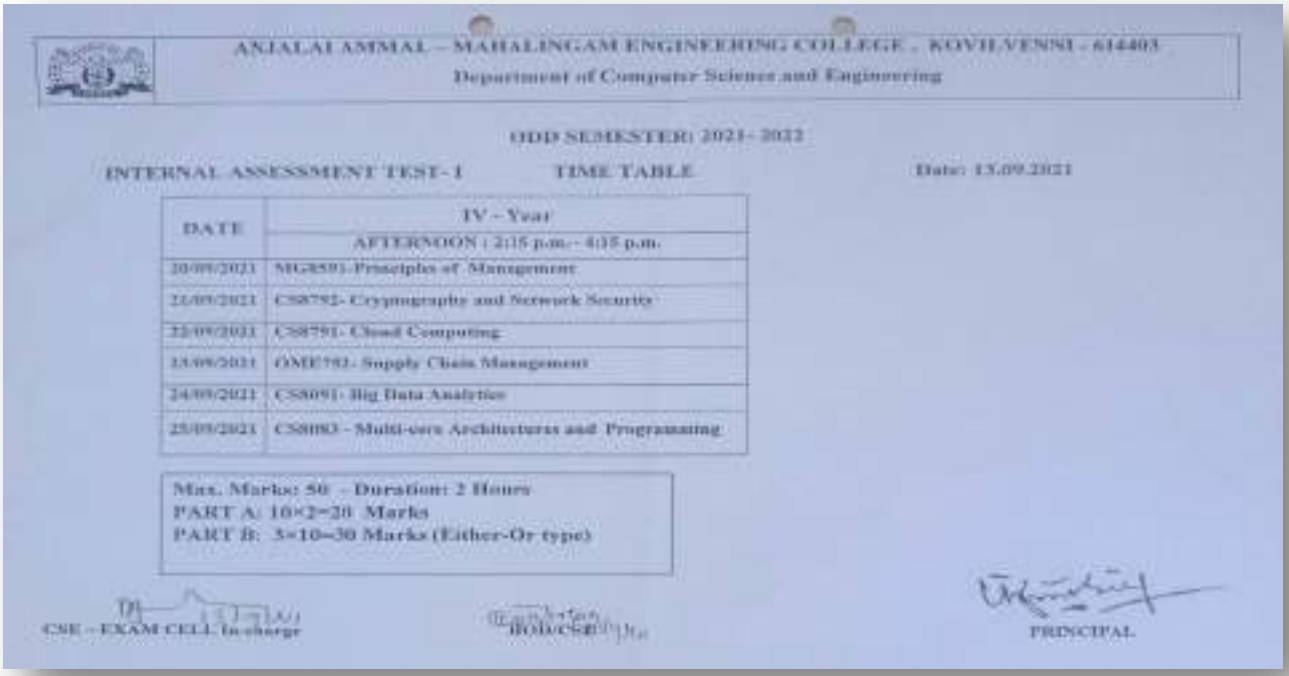
ODD SEMESTER: 2021- 2022

INTERNAL ASSESSMENT TEST- I TIME TABLE Date: 13.09.2021

DATE	II - Year	
	FORENOON : 10:00 a.m. – 12:00 noon	AFTERNOON : 2:15 p.m.– 4:15 p.m.
20/09/2021	MA8351- Discrete Mathematics	CS8351- Digital Principles and System Design
22/09/2021	CS8391- Data Structures	CS8392- Object Oriented Programming
24/09/2021	EC8395- Communication Engineering	

Max. Marks: 50 - Duration: 2 Hours
PART A: 10×2=20 Marks
PART B: 3×10=30 Marks (Either-Or type)

CSE – EXAM CELL In-charge HOD/CSE PRINCIPAL



ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE , KOVILVENNI - 614403

Department of Computer Science and Engineering

ODD SEMESTER: 2021- 2022

INTERNAL ASSESSMENT TEST- I TIME TABLE Date: 13.09.2021

DATE	IV – Year
	AFTERNOON : 2:15 p.m.– 4:15 p.m.
20/09/2021	MG8591-Principles of Management
21/09/2021	CS8792- Cryptography and Network Security
22/09/2021	CS8791- Cloud Computing
23/09/2021	OME792- Supply Chain Management
24/09/2021	CS8091- Big Data Analytics
25/09/2021	CS8083 - Multi-core Architectures and Programming

Max. Marks: 50 – Duration: 2 Hours
PART A: 10×2=20 Marks
PART B: 5×10=30 Marks (Either-Or type)

CSE – EXAM CELL In-charge HOD/CSE PRINCIPAL



ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE , KOVILVENNI - 614403

Department of Computer Science and Engineering

ODD SEMESTER: 2021- 2022

INTERNAL ASSESSMENT TEST- I TIME TABLE Date: 13.09.2021

DATE	III - Year	
	FORENOON : 10:00 a.m. – 12:00 noon	AFTERNOON : 2:15 p.m.– 4:15 p.m.
21/09/2021	MA8551- Algebra and Number Theory	CS8591- Computer Networks
23/09/2021	EC8691- Microprocessors and Microcontrollers	CS8501- Theory of Computation
25/09/2021	CS8592- Object Oriented Analysis and Design	OEC552- Soft Computing

Max. Marks: 50 - Duration: 2 Hours
PART A: 10×2=20 Marks
PART B: 5×10=30 Marks (Either-Or type)

CSE – EXAM CELL In-charge HOD/CSE PRINCIPAL

Internal Assessment Test Circular

ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE , KOVILVENNI - 614403

Department of Computer Science and Engineering

EVEN SEMESTER: 2021- 2022

INTERNAL ASSESSMENT TEST- III TIME TABLE Date: 08.06.2022

DATE	II - YEAR	III - YEAR	IV - YEAR
10/06/2022	MA8402 - Probability and Queuing Theory	CS8651 - Internet Programming	-
11/06/2022	CS8491 – Computer Architecture	CS8691 – Artificial Intelligence	-
13/06/2022	CS8492 - Database Management Systems	CS8601 - Mobile Computing	-
14/06/2022	CS8451 - Design and Analysis of Algorithms	CS8602 - Compiler Design	-
15/06/2022	CS8493 - Operating Systems	CS8603 - Distributed Systems	GE8076 - Professional Ethics in Engineering
16/06/2022	CS8494 – Software Engineering	CS8075 – Data Warehousing and Data Mining	CS8080 - Information Retrieval Techniques

Max. Marks: 100 - Duration: 3 Hours
(AFTER NOON : 1:30 p.m.– 4:30 p.m.)
PART A: 10×2=20 Marks
PART B: 5×13=65 Marks (Either-Or type)
PART C: 1x15=15 Marks

8/6/22

CSE – EXAM CELL In-charge HOD/CSE PRINCIPAL

ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE , KOVILVENNI - 614403

Department of Computer Science and Engineering

CERT

INTERNAL ASSESSMENT TEST II- TIME TABLE – EVEN SEMESTER: 2019- 2020 Date: 25.02.2020

DATE	II - Year	III - Year	IV - Year	II - Year	III - Year	IV - Year
	FORENOON : 10:00 AM – 12:00 NOON			AFTERNOON : 2:30 PM – 4:30 PM		
28/02/2020	MA8402- Probability and Queueing Theory	CS8651- Internet Programming	--	CS8491- Computer Architecture	CS8691- Artificial Intelligence	CS6801- Multi – Core Architectures and Programming
29/02/2020	CS8492- Database Management Systems	CS8601- Mobile Computing	--	CS8451- Design and Analysis of Algorithms	CS8602- Compiler Design	IT6011- Knowledge Management
02/03/2020	CS8493- Operating Systems	CS8603- Distributed Systems	--	CS8494- Software Engineering	CS8075- Data Warehousing and Data Mining	MG6088- Software Project Management

** (Marks: 50 / Duration: 2 Hours) **
PART A: 10×2=20
PART B: 3×10=30 (Either-Or type)

Note:
Part A: Four two marks from Unit-II (Q1to Q4)
Six two marks from Unit-III (Q5- Q10)
Part B: Two ten marks from Unit-II (Q11)
Four ten marks from Unit-III (Q12 & Q13)

HOD/CSE

Principal,
Anjalai Ammal Mahalingam
Engineering College

Internal Assessment Test sample Question Paper for Academic Year 2022-2023

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE-KOVILVENNI- 614403

Max Marks: 100	**Internal Assessment Test-I**	**Date & Session:** 18.10.2022 & AN
Time: 3hrs(1.00 pm – 4.00 pm)	III/CSE/A&B	**Subject code:** CS3301
Faculty Name: Handled by: Mrs. G.Kalaiselvi Mr.K.Pazhanivel Prepared by: Mrs.S.Grace Mary	Data Structures	**Reg.No**

Instructions: (i) Answer all the questions (ii) Programmable calculators are not allowed.

Part A (10 x 2 = 20)

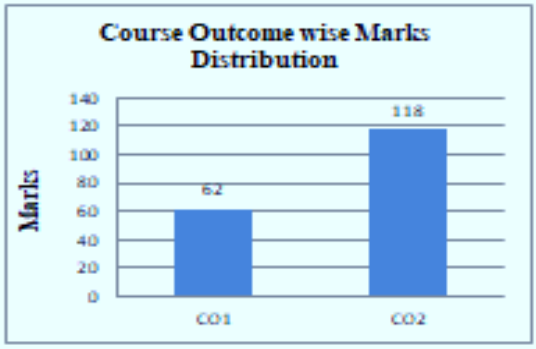
Qn. No.	Question	Marks	CO	PO	PI	BL
1.	List the advantages of linked list over arrays.	2	CO1	PO1	1.4.1	BL2
2.	Define Abstract Datatype	2	CO1	PO1	1.4.1	BL1
3.	Differentiate primitive datastructures from non-primitive datastructures.	2	CO1	PO1	1.4.1	BL1
4.	Elucidate the purpose of header node in linked list.	2	CO1	PO1	1.4.1	BL2
5.	Perform the radix sort on the given list of elements 345,654,924,123,567,472,555,808,911	2	CO1	PO2	2.1.2	BL3
6.	State the applications of stack.	2	CO2	PO1	1.4.1	BL2
7.	Convert the following infix expression into postfix expression: (A-B)*(C+D)	2	CO2	PO1 PO2	1.4.1 2.1.2	BL3
8.	Mention the conversion required for a queue data structure to behave as a circular queue.	2	CO2	PO1	1.4.1	BL1
9.	How do you test for an empty Queue?	2	CO2	PO1	1.4.1	BL1
10.	Convert the following postfix expression into infix expression: AB – CD + *	2	CO2	PO1 PO2	1.4.1 2.1.2	BL3
	Part B(5 x 13 = 65)					
11(a)	Explain the insertion operation in doubly linked list. How nodes are inserted at the beginning, after a specified node, before a specified node and at the end of the list.	13	CO1	PO1 PO2	1.4.1 2.1.2	BL2
	(Or)					
11(b)	Write procedures or pseudo codes for the following operations on circular singly linked lists: (i) insertion. (ii) deletion.	13	CO1	PO1 PO2	1.4.1 2.1.3	BL2
12(a)	State the polynomial representation using linked list. Write procedure to declare, create and add two polynomials. Perform addition operation on the following polynomials $5x^6+6x^4+2x^3$ and $8x^6+3x^5+4x+5$.	13	CO1	PO1 PO2	1.4.1 2.1.1	BL3
	(Or)					
12(b)	Write procedures or pseudo codes for the following operations on circular doubly linked lists. (i) insertion. (ii) deletion.	13	CO1	PO1 PO2	1.4.1 2.1.3	BL2
13(a)	Write the steps to convert infix expression to prefix expression and perform the same on the following expressions (i)(A-B/C)*(A/K-L) (ii)(A-B)*(C+D)	13	CO2	PO1 PO3	1.4.1 3.2.2	BL3
	(Or)					
13(b)	List the steps to check whether the symbols of a program are balanced. Apply the procedure and check whether the given expressions are balanced or not. (i)((B*B) - {4*A*C} / [2*4] (ii)((a+b)*((d/e))	13	CO2	PO1 PO3	1.4.1 3.2.2	BL3
14(a)	Describe in detail about the array implementation of stack ADT	13	CO2	PO1 PO2	1.4.1 2.1.2	BL2
	(Or)					
14(b)	Write short notes on(i) Dequeue and its operation. (ii) Function call.	13	CO2	PO1 PO2	1.4.1 2.1.1	BL2

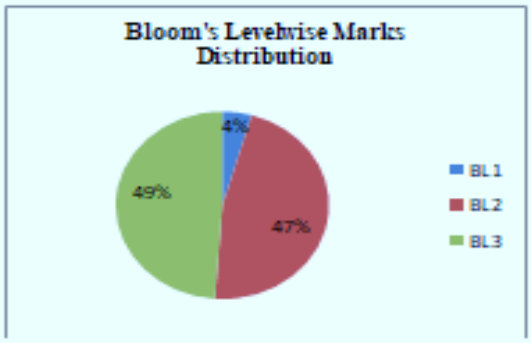
Internal Assessment Test sample Question Paper for Academic Year 2022-2023

15(a)	Explain about Queue ADT and its operations in detail.	13	CO2	PO1 PO2	1.4.1 2.3.1	BL2
	(Or)					
15(b)	Evaluate the following expressions using stack (i) 6 5 2 3 + 8 * + 3 + * (ii) + - 9 2 7 * 8 / 4 12	13	CO2	PO1 PO3	1.4.1 3.2.1	BL3
	Part C (1x 15 = 65)					
16(a)	Write the procedure to convert the infix expression to postfix expression and steps involved in evaluating the postfix expression. Convert the infix expression a+ b*c+ (d*e +f)*g to postfix form. Evaluate the given expression using stack 9 3 4 * 8 + 4 / -	15	CO2	PO1 PO3	1.4.1 3.2.2	BL3
	(Or)					
16(b)	Write the procedure to convert the infix expression to postfix expression and steps involved in evaluating the postfix expression. Convert the infix expression A-(B/C + (D%E*F)/G)*H to postfix form. Evaluate the given expression using stack 4.99 1.06 * 5.99 + 6.99 1.06 * +	15	CO2	PO1 PO3	1.4.1 3.2.2	BL3
	Bloom's Level: BL1-Remembering, L2-Understanding, L3-Applying, L4-Analyzing, L5-Evaluating, L6-Creating					

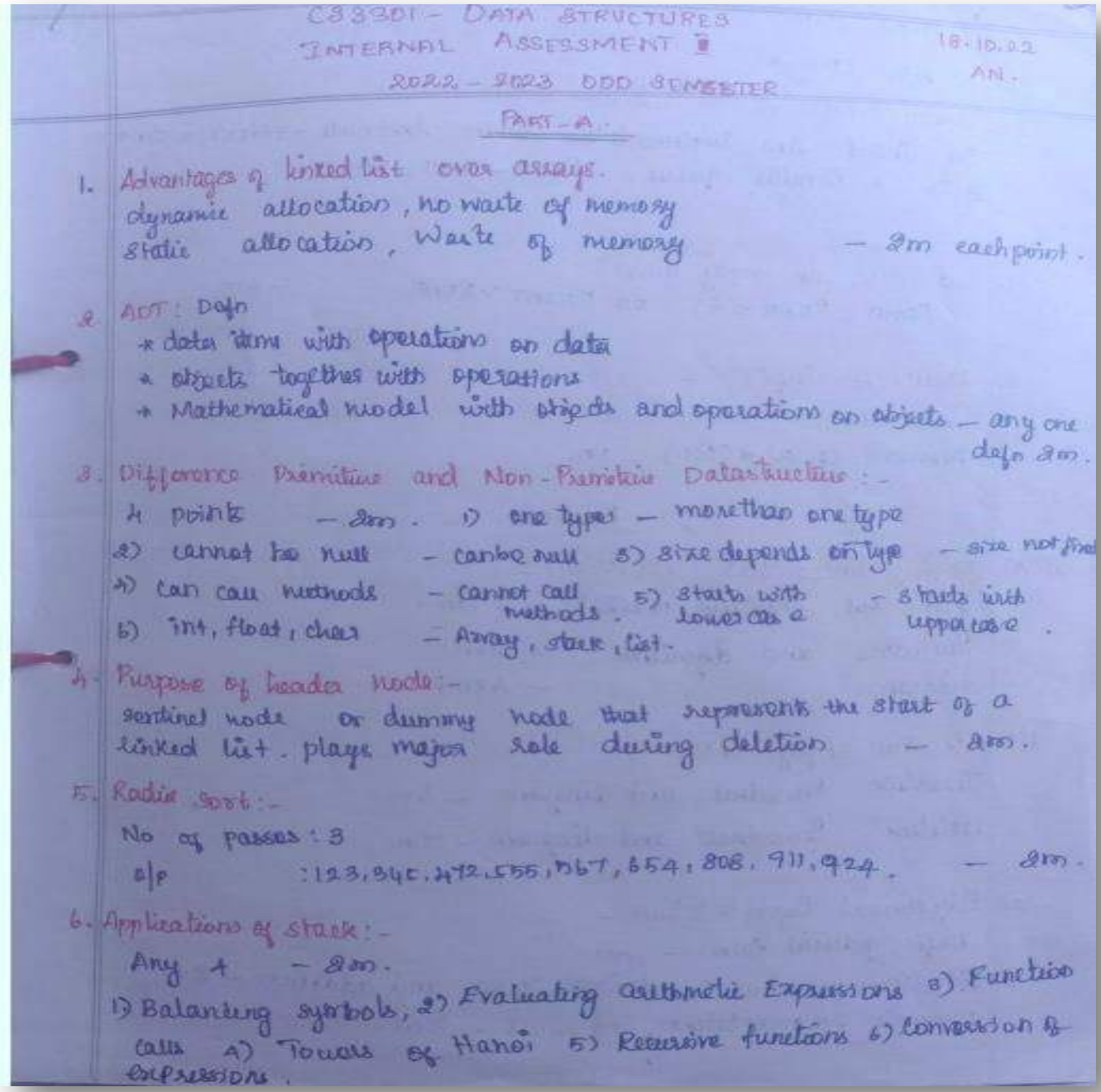
Mark Distribution for Internal Assessment Test I

Course Outcome				Bloom's Level			
CO	Mark	Total Mark	%	BL	Mark	Total Mark	%
CO1	62	180	34.4	BL1	8	180	4
CO2	118	180	65.5	BL2	84	180	47
				BL3	88	180	49





Internal Assessment Test sample Key



CS3301 – DATA STRUCTURES
INTERNAL ASSESSMENT I
2022 – 2023 ODD SEMESTER
18.10.22
AN.

PART – A

1. Advantages of linked list over arrays.
dynamic allocation, no waste of memory
static allocation, Waste of memory — 2m each point.

2. ADT: Defn
* data item with operations on data
* objects together with operations
* Mathematical model with objects and operations on objects — any one defn 2m.

3. Difference Primitive and Non-Primitive Datastructure:-
4 points — 2m. 1) one type — more than one type
2) cannot be null — can be null 3) size depends on type — size not fixed
4) can call methods — cannot call methods. 5) starts with lowercase — starts with uppercase.
5) int, float, char — Array, stack, list.

4. Purpose of header node:-
sentinel node or dummy node that represents the start of a linked list. plays major role during deletion — 2m.

5. Radix Sort:-
No of passes: 3
o/p : 123, 345, 242, 555, 567, 654, 806, 911, 924. — 2m.

6. Applications of stack:-
Any 4 — 2m.
1) Balancing symbols, 2) Evaluating arithmetic Expressions 3) Function calls 4) Towers of Hanoi 5) Recursive functions 6) Conversion of expressions.

Steps – 1m answer 1m.

AB – CD+ *

8. Queue operation to circular Queue

In linked list Implementation when last node → NEXT = START
It is a circular queue. REAR → NEXT = FRONT

9. Test for an empty Queue:

FRONT = REAR = −1 or FRONT > REAR. – 2m

10 Postfix to Infix :–

Steps = 1m

Answer : (A–B) * (C+D) – 1m

PART-B

11 a) Doubly linked list Insertion :–

List out Insertion possibilities – 1m.

Procedure and algorithm – 8m

diagram – 4m

11 b) Circular singly linked list.

Insertion : Procedure and diagram – 6m

Deletion : Procedure and diagram – 7m.

12a) Polynomial Representation :–

Defn, general form – 2m

Algorithm procedure for declare, create and addition – 8m

Example representation and result – 3m.

5) circular doubly linked list :-
Insertion - Algorithm & diagram & example — 7m
deletion - Algorithm & example diagram — 6m

12a) Infix to Prefix Conversion :-
steps — 8m
(i) Postfix : LKA/- CB/D — * Prefix : * -A/BC -/AKL — 5m
(ii) Postfix : PC +BA -* Prifix : * -AB+CD — 5m

12b) Check whether expressions are balanced or not.
steps - 8m
((B * B) - {4 * A * C} / [2 * 1] imbalanced — 5m
((a+b) * ((d/e)) imbalanced —5m.

13a) Array Implementation of Stack ADT.
Definition, diagram — 4m
Operations — 2m
Code for Push, Pop and return — 6m.
Drawbacks — 1m

13b) Dequeue & its operation (ii) Function calls
(i) Dequeue - Definition - 2m (ii) Definition - 2m.
diagram — 8m. example code - 2m
Two Variants — 4m diagram — 1m

15a) Queue ADT and operations :-
Definition, diagram — 3m
Operations - Algorithm — 6m
Implementation - Array & Linked list. 4m

15b) Evalute Expressions:-

(i) 6 5 2 3 + 8 * + 3 + * → 288 - 7m

(ii) + - 2 7 * 8 / 4 12 → 29. - 6m.

PART - C.

16 a) Convert Infix to Postfix expression.

Procedure - 3m

abc * + de * f + g * + ⇒ conversion - 7m.

Evaluation result ⇒ 4 5m

16 b) Convert Infix to postfix expression.

Procedure - 3m

Conversion result ABC / DEF * / . G / + H * - ⇒ 7m

Evaluation result → 18.64 - 5m.

Rakshi Talwar
SIGNATURE OF FACULTY

HOD

Question Paper for IAT - II

ANJALAI AMMAL-MAHALINGAM ENGINEERING COLLEGE-KOVILVENNI 614 403

Max Marks: 50	Internal Assessment Test-II	Date & Session: 29.02.2020 & AN
Time: 2 Hours 2.30 PM – 4.30 PM	Semester/Branch/Section VI /CSE/A & B	Subject code: CS8602
Staff Name: Mr.P.Manikanda Prabu	Subject Name: Compiler Design	Register Number: 8 1 0 4

Instructions: (i) Answer all the questions.

Part A (10 x 2 = 20)

Qn No	Question	Marks	CO	BL
1	List the different categories of shift reduce parser?	2	2	L2
2	Define LR(k) parsing.	2	2	L2
3	What do you meant by parse tree?	2	2	L2
4	What is an ambiguous grammar? Give an example.	2	2	L2
5	What do you meant by Annotated Parse Tree?	2	3	L2
6	List the three kinds of intermediate code representation.	2	3	L2
7	Draw the syntax tree for the assignment statement a := b * -c + b * -c.	2	3	L2
8	What do you meant by dangling else problem?	2	3	L2
9	What are inherited attributes?	2	3	L2
10	What is the usage of syntax directed definition?	2	3	L2

Part B (3 x 10 = 30)

11(a)	Construct SLR parsing table for the following grammar (10) E →E + T | T T →T * F | F F→ (E) | id and Parse the input String id+id	10	2	L3
	(OR)			
11(b)	Check whether the given grammar is an CLR or not S→ CC C→cC | d	10	2	L3
12 (a)	What is a three address code? Mention its types. How would you implement these address statements? Explain with suitable examples.	10	3	L2
	(OR)			
12(b)	Explain syntax directed translation for arrays with an example.	10	3	L2

13(a)	Consider the matrix multiplication program
	begin
	for i:1 to n do
	for j:=1 to n do
	c[i,j]:=0;
	for i:=1 to n do
	for j:=1 to n do
	for k:=1 to n do
	c[i,j]:= c[i,j]+a[i,k]*b[k,j]
	end
	Produce three address code for the above program
		10	3	L3

13(b)	Explain about the different types of three address statements with an example.	10	3	L2

Bloom's Level: L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create

Mark Distribution for Internal Assessment Test II

CO	Mark	Remember	Understand	Apply	Analyze	Evaluate	Create
CO1	--	-	-	-	-	-	-
CO2	-	-	8	20			
CO3	-	-	12	30	10		
CO4	-	-	-	-	-	-	-
CO5	-	-	-	-	-	-	-
Total			20	50	10		

Scheme of Evaluation

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Internal Assessment Test-II
Scheme of Evaluation

Subject Code : CS6660
Subject Name : Compiler Design
Course Teacher: Manikanda Prabu.P

Class : III CSE
Batch: 2016-2020
Semester : VI

PART – A(10*2=20 Marks)
Answer all the Questions

1. List the different categories of shift reduce parser.
   Two categories – 1+1 marks
2. Define LR(k) parsing.
   Definition-2 marks
3. What do you meant parse tree?
   Definition-2 marks
4. What is an ambiguous grammar? Give an example.
   Ambiguous grammar-1 mark
   Example-1 mars
5. What do you meant by Annotated Parse Tree?
   Definition-2 marks
6. List the three kinds of intermediate representation.
   Three representation-2 marks.
7. Draw the syntax tree for the assignment statement
   a := b * -c + b * -c.
   syntax tree-2 marks
8. What do you meant dangling else problem?
   dangling else problem-2 marks
9. What are inherited attributes?
   Definition-2 marks
10. What is the usage of syntax directed definition.
    Usage of syntax directed definition.

PART – B(3*10=30 Marks)

11. a) Construct SLR parsing table for the following grammar (10)

    E →E + T | T
    T →T * F | F
    F→ (E) | id
    Parse the input String id+id
    Closure and go to operation-4marks
    SLR (1) Table -4 marks
    Parse the input String id+id -2 marks

(OR)

11. b) Check whether the following grammar is in CLR or not (10)

S→ CC

C→cC | d

Closure Operation and go to operation-06 marks

CLR Table and justification -4 marks

12. a) What is a three address code? Mention its types. How would you implement these address statements? Explain with suitable examples. (10)

Three address code -2 marks

Types-2 marks

Implementation techniques-2 marks

Explanation-4 marks

(OR)

12 b) Explain syntax directed translation for arrays with an example, (10)

Syntax directed translation-5 marks

Example with explanation-5 marks

13. a) Consider the matrix multiplication program (10)

```
begin
for i:1 to n do
for j:=1 to n do
c[i,j]:=0;
for i:=1 to n do
for j:=1 to n do
for k:=1 to n do
c[i,j]:= c[i,j]+a[i,k]*b[k,j]
end
```

Produce three address code for the above program

three address code=10 marks

13. b) Explain about the different types of three address statements with example.(10)

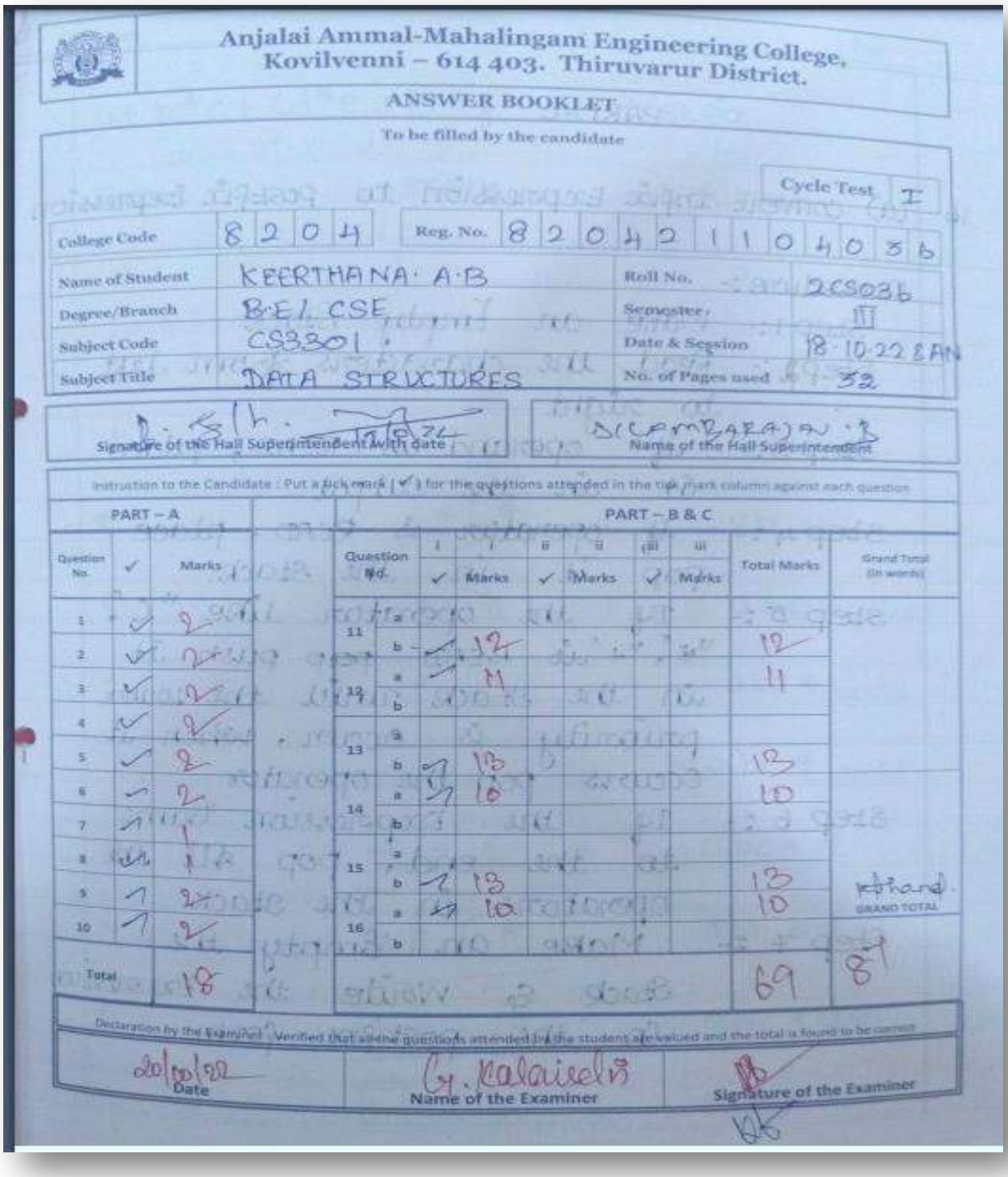
Types -4 marks

Explanation-6 marks

Signature of the Faculty

HOD

Answer Booklet Evaluation 2021 Regulation



Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni – 614 403. Thiruvarur District.

ANSWER BOOKLET

To be filled by the candidate

Cycle Test: I

College Code	8204	Reg. No.	820421104036
Name of Student	KEERTHANA. A.B	Roll No.	2CS036
Degree/Branch	B.E/ CSE	Semester	III
Subject Code	CS3301	Date & Session	18.10.22 FAN
Subject Title	DATA STRUCTURES	No. of Pages used	32

Signature of the Hall Superintendent with date

DHEMBARAJAN. B
Name of the Hall Superintendent

Instruction to the Candidate : Put a tick mark (✓) for the questions attended in the tick mark column against each question

PART – A

Question No.	✓	Marks
1	✓	2
2	✓	2
3	✓	2
4	✓	2
5	✓	2
6	✓	2
7	✓	1
8	✓	1
9	✓	2
10	✓	2
Total		18

PART – B & C

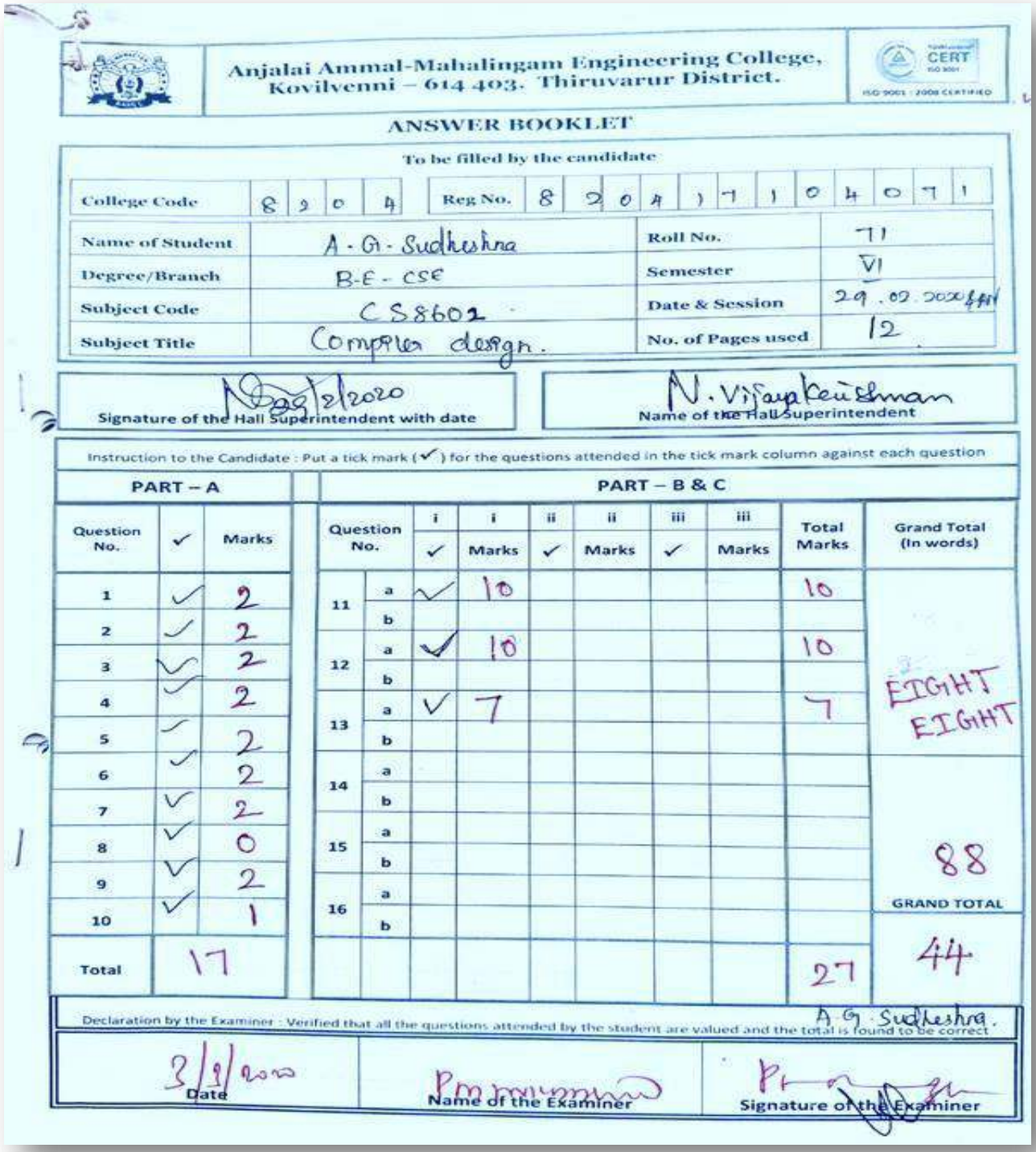
Question No.		i ✓	i Marks	ii ✓	ii Marks	iii ✓	iii Marks	Total Marks
11	a							
	b	✓	12					12
12	a	✓	11					11
	b							
13	a							
	b	✓	13					13
14	a	✓	10					10
	b							
15	a							
	b	✓	13					13
16	a	✓	10					10
	b							
								69

Grand Total (in words): eighty nine — GRAND TOTAL: 89

Declaration by the Examiner: Verified that all the questions attended by the student are valued and the total is found to be correct

Date	Name of the Examiner	Signature of the Examiner
20/10/22	G. Kalaiselvi	

IAT-II Answer Booklet Evaluation



Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni – 614 403. Thiruvarur District.

CERT ISO 9001 : 2008 CERTIFIED

ANSWER BOOKLET

To be filled by the candidate

College Code	8204	Reg No.	820471040071
Name of Student	A. G. Sudheshna	Roll No.	71
Degree/Branch	B.E - CSE	Semester	VI
Subject Code	CS8601	Date & Session	29.02.2020 AN
Subject Title	Compiler design.	No. of Pages used	12

Signature of the Hall Superintendent with date: 29/2/2020

Name of the Hall Superintendent: N. Vijayakrishnan

Instruction to the Candidate : Put a tick mark (✓) for the questions attended in the tick mark column against each question

PART – A

Question No.	✓	Marks
1	✓	2
2	✓	2
3	✓	2
4	✓	2
5	✓	2
6	✓	2
7	✓	2
8	✓	0
9	✓	2
10	✓	1
Total	17	

PART – B & C

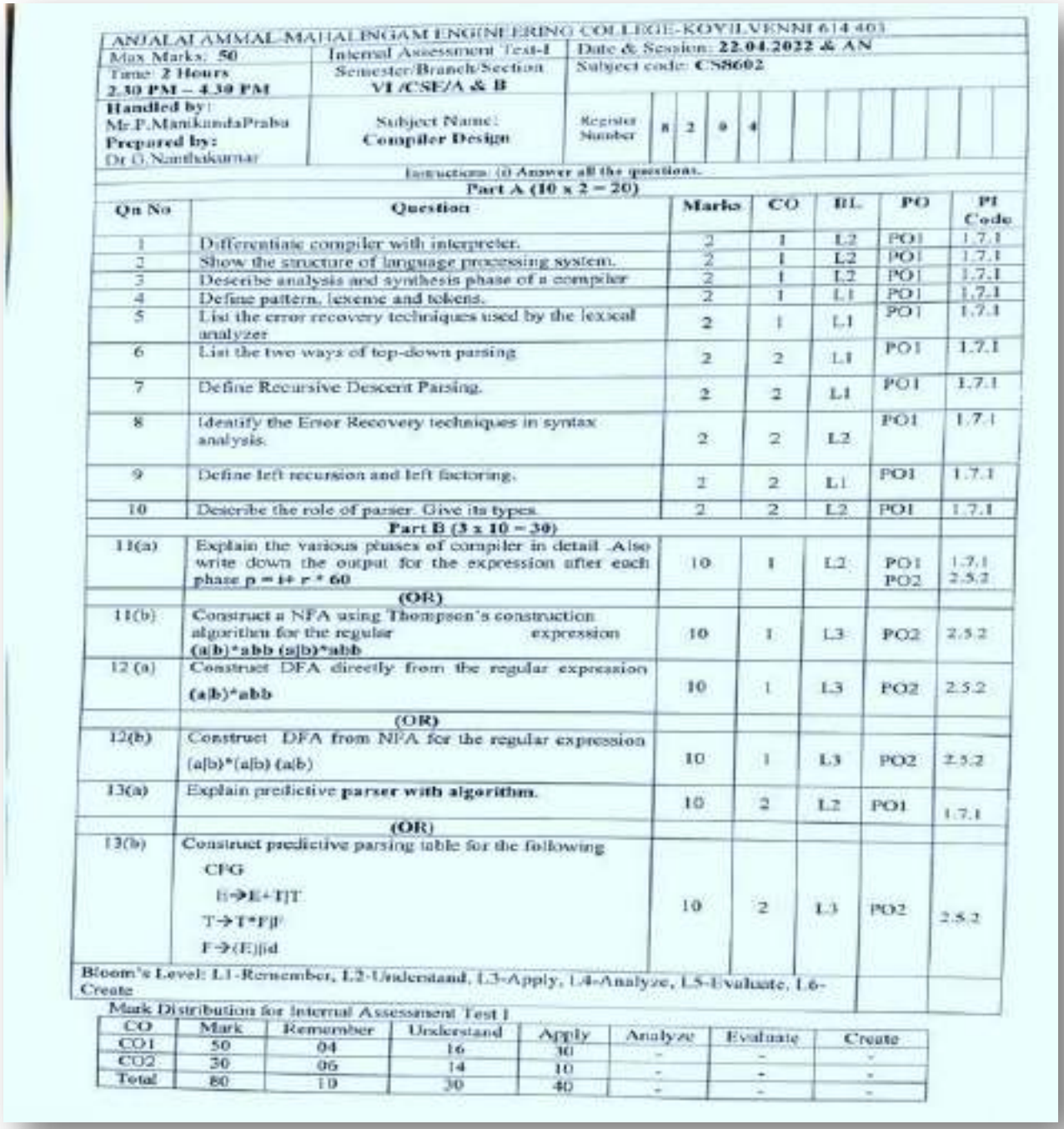
Question No.		i ✓	i Marks	ii ✓	ii Marks	iii ✓	iii Marks	Total Marks	Grand Total (In words)
11	a	✓	10					10	EIGHT EIGHT
	b								
12	a	✓	10					10	
	b								
13	a	✓	7					7	
	b								
14	a								GRAND TOTAL
	b								88
15	a								
	b								
16	a								
	b								
								27	44

Declaration by the Examiner : Verified that all the questions attended by the student are valued and the total is found to be correct

A. G. Sudheshna.

Date	Name of the Examiner	Signature of the Examiner
3/9/2020	Pm [illegible]	[signature]

Internal Assessment Test for Academic Year 2021-2022



ANJALAI AMMAL-MAHALINGAM ENGINEERING COLLEGE-KOVILVENNI 614 403

Max Marks: 50	Internal Assessment Test-I	Date & Session: 22.04.2022 & AN
Time: 2 Hours 2.30 PM – 4.30 PM	Semester/Branch/Section VI /CSE/A & B	Subject code: CS8602
Handled by: Mr.P.ManikandaPrabu Prepared by: Dr.G.Nanthakumar	Subject Name: Compiler Design	Register Number: 8 2 0 4

Instructions: (i) Answer all the questions.

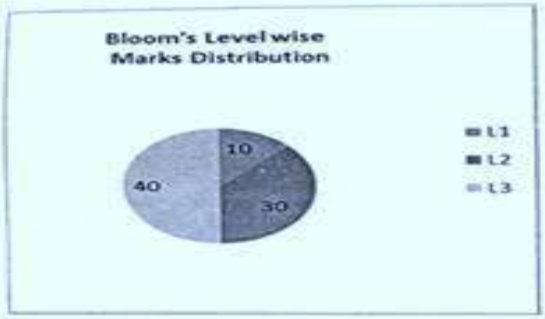
Part A (10 x 2 = 20)

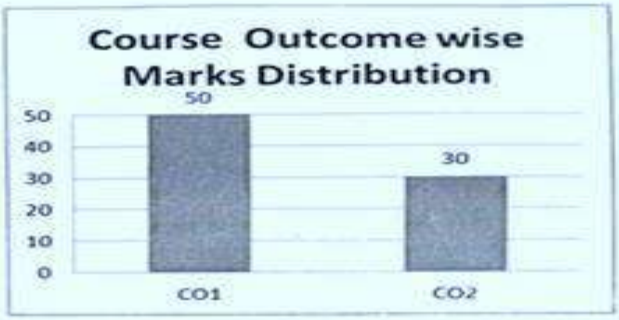
Qn No	Question	Marks	CO	BL	PO	PI Code
1	Differentiate compiler with interpreter.	2	1	L2	PO1	1.7.1
2	Show the structure of language processing system.	2	1	L2	PO1	1.7.1
3	Describe analysis and synthesis phase of a compiler	2	1	L2	PO1	1.7.1
4	Define pattern, lexeme and tokens.	2	1	L1	PO1	1.7.1
5	List the error recovery techniques used by the lexical analyzer	2	1	L1	PO1	1.7.1
6	List the two ways of top-down parsing	2	2	L1	PO1	1.7.1
7	Define Recursive Descent Parsing.	2	2	L1	PO1	1.7.1
8	Identify the Error Recovery techniques in syntax analysis.	2	2	L2	PO1	1.7.1
9	Define left recursion and left factoring.	2	2	L1	PO1	1.7.1
10	Describe the role of parser. Give its types.	2	2	L2	PO1	1.7.1
	Part B (3 x 10 = 30)					
11(a)	Explain the various phases of compiler in detail .Also write down the output for the expression after each phase **p = i+ r * 60**	10	1	L2	PO1 PO2	1.7.1 2.5.2
	(OR)					
11(b)	Construct a NFA using Thompson's construction algorithm for the regular expression **(a|b)*abb (a|b)*abb**	10	1	L3	PO2	2.5.2
12 (a)	Construct DFA directly from the regular expression **(a|b)*abb**	10	1	L3	PO2	2.5.2
	(OR)					
12(b)	Construct DFA from NFA for the regular expression (a|b)*(a|b) (a|b)	10	1	L3	PO2	2.5.2
13(a)	Explain predictive **parser with algorithm.**	10	2	L2	PO1	1.7.1
	(OR)					
13(b)	Construct predictive parsing table for the following CFG E→E+T|T T→T*F|F F→(E)|id	10	2	L3	PO2	2.5.2

Bloom's Level: L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create

Mark Distribution for Internal Assessment Test I

CO	Mark	Remember	Understand	Apply	Analyze	Evaluate	Create
CO1	50	04	16	30	-	-	-
CO2	30	06	14	10	-	-	-
Total	80	10	30	40	-	-	-





Assignment Schedule

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ASSIGNMENT

Subject Code : CS8602 — **Class: III CSE A&B**
Subject Name : Compiler Design — **Batch: 2017-2021**
Course Teacher: : Manikanda Prabu.P — **Semester : VI**

ASSIGNMENT-I

Construct DFA directly from the regular expression (a|b)*a(a/b)(a/b). (10)

ASSIGNMENT-II

Analyze the following grammar is a LALR ((1) grammar and construct LALR parsing table

S→L = R | R
L → * R | id
R → L (10)

ASSIGNMENT-III

Consider the matrix multiplication program (10)

```
begin
for i:1 to n do
for j:=1 to n do
c[i,j]:=0;
for i:=1 to n do
for j:=1 to n do
for k:=1 to n do
c[i,j]:= c[i,j]+a[i,k]*b[k,j]
end
```

Produce three address code for the above program

ASSIGNMENT-IV

Explain the various issues in the design of code generation. (10)

ASSIGNMENT-V

Illustrate the principle sources of optimization in detail and apply it to the following code (10)

```
void quicksort(int m, int n)
 {
  int i, j, v, x;
  if (n <= m) return;
  i = m-1; j = n; v =a[n];
  while (1)
  {
 do i = i+1; while (a[i] < v);
 do j = j-1; while (a[j] > v);
 if (i >= j) break;
 x = a[i]; a[i] = a[j]; a[j] = x;
  }
  x = a[i]; a[i] = a[n]; a[n] = x;
 quicksort(m, j);
 quicksort(i+1, n);
  }
```

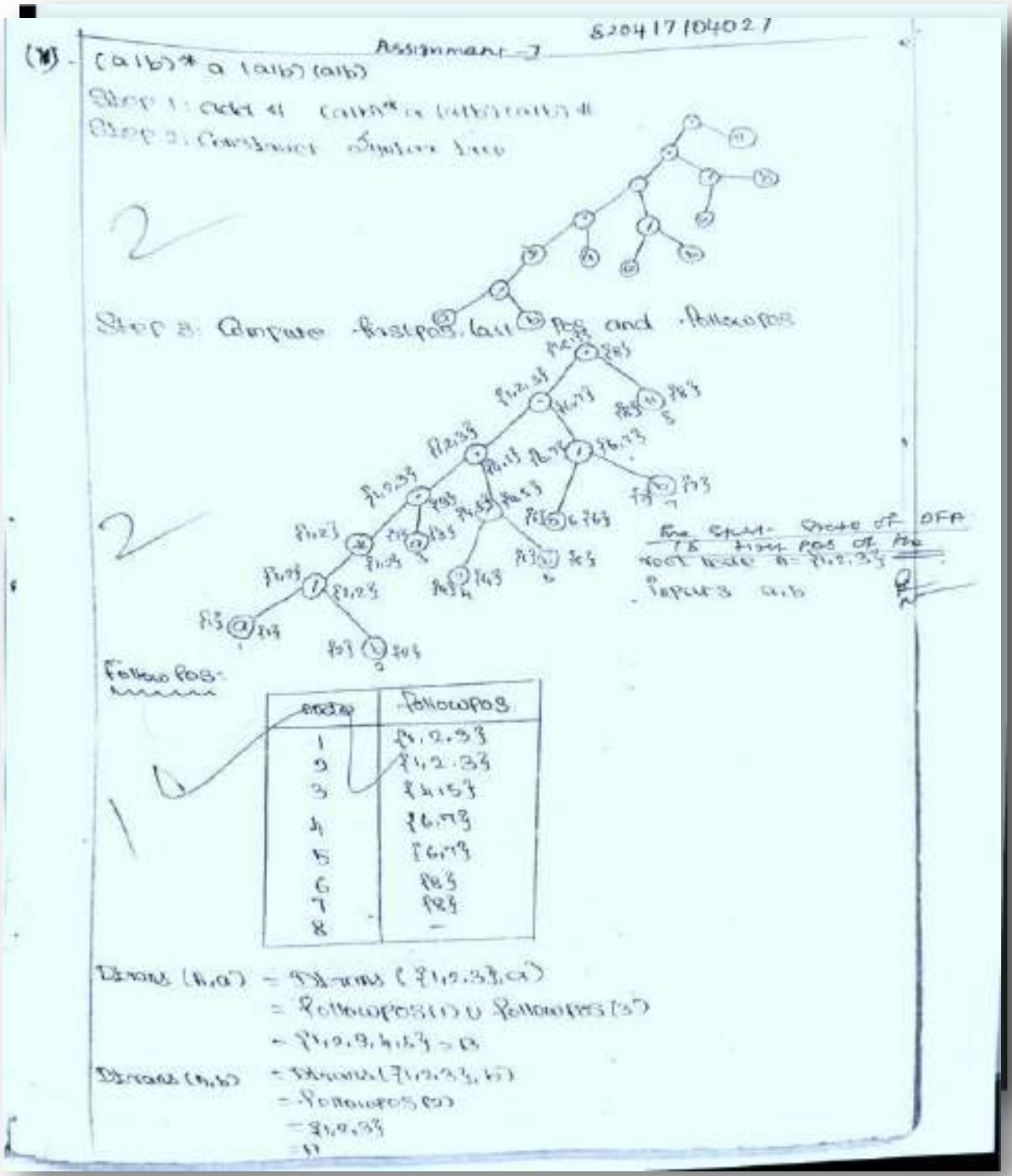
16/12/2017

Signature of Staff

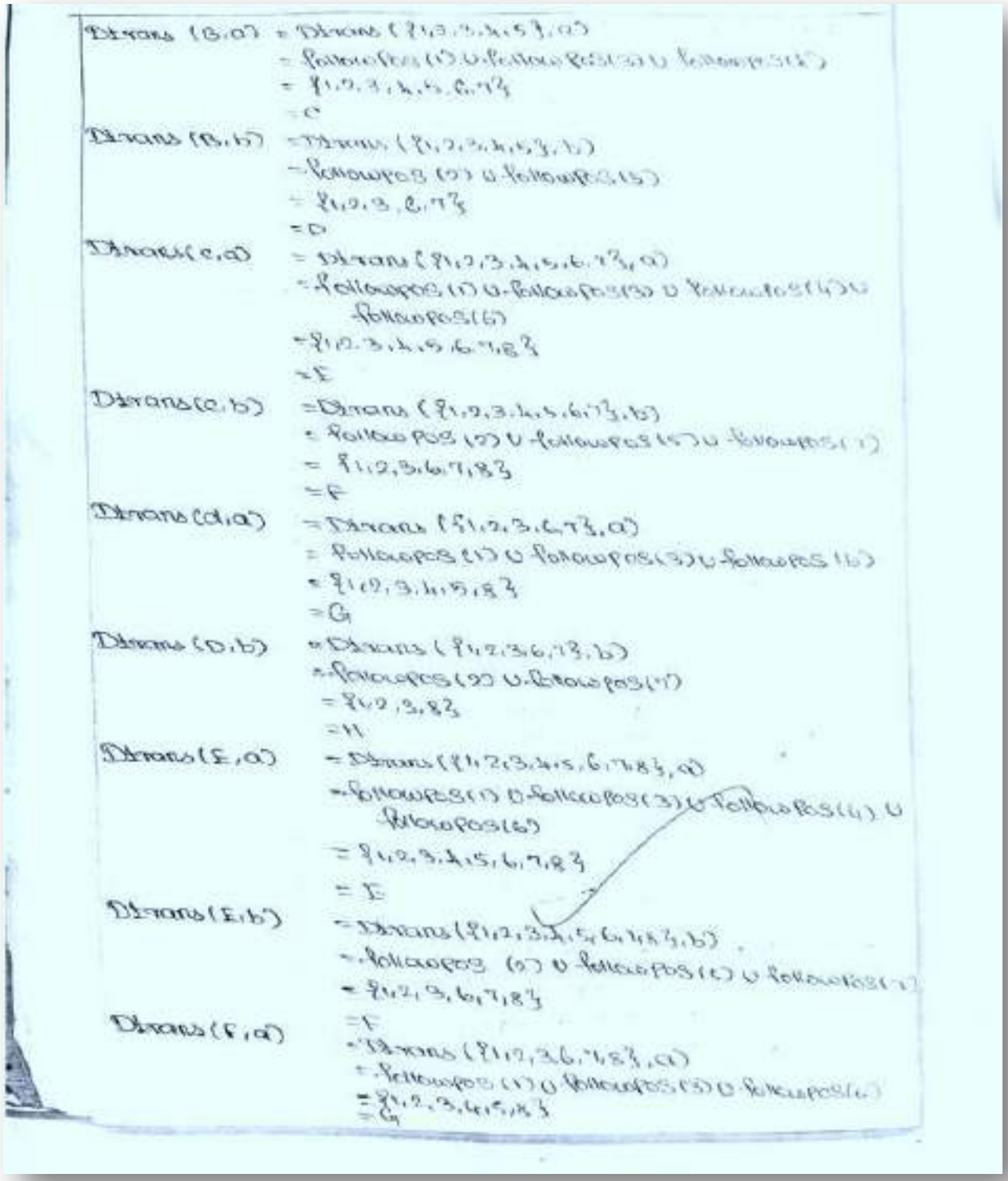
HOD/CSE

Assignment -I

Scheme of Assignment



Sample Student Assignment


Dtrans (B,a) = Dtran ({1,3,5,4,5},a)
= followpos(1) ∪ followpos(3) ∪ followpos(5)
= {1,2,3,4,5,6,7}
= C
Dtrans (B,b) = Dtran ({1,2,3,4,5,3,7},b)
= followpos(2) ∪ followpos(5)
= {1,2,3,6,7}
= D
Dtrans(C,a) = Dtran {1,2,3,4,5,6,7},a)
= followpos(1) ∪ followpos(3) ∪ followpos(4) ∪ followpos(6)
= {1,2,3,4,5,6,7,8}
= E
Dtrans(C,b) = Dtran ({1,2,3,4,5,6,7},b)
= followpos(2) ∪ followpos(5) ∪ followpos(7)
= {1,2,3,6,7,8}
= F
Dtrans(D,a) = Dtran {1,2,3,6,7},a)
= followpos(1) ∪ followpos(3) ∪ followpos(6)
= {1,2,3,4,5,8}
= G
Dtrans(D,b) = Dtran ({1,2,3,6,7},b)
= followpos(2) ∪ followpos(7)
= {1,2,3,8}
= H
Dtrans(E,a) = Dtran({1,2,3,4,5,6,7,8},a)
= followpos(1) ∪ followpos(3) ∪ followpos(4) ∪ followpos(6)
= {1,2,3,4,5,6,7,8}
= E
Dtrans(E,b) = Dtran({1,2,3,4,5,6,7,8},b)
= followpos(2) ∪ followpos(5) ∪ followpos(7)
= {1,2,3,6,7,8}
Dtrans(F,a) = F
= Dtran ({1,2,3,6,7,8},a)
= followpos(1) ∪ followpos(3) ∪ followpos(6)
= {1,2,3,4,5,8}
= G

Dtrans(F,b) = Dtrans({1,2,3,6,7,8},b)
= ε-closure(3) ∪ ε-closure(7)
= {1,2,3,8}
= H

Dtrans(G,a) = Dtrans({1,2,3,4,5,8},a)
= ε-closure(4) ∪ ε-closure(5) ∪ ε-closure(8)
= {1,2,3,4,5,6,7}
= C

Dtrans(G,b) = Dtrans({1,2,3,4,5,8},b)
= ε-closure(2) ∪ ε-closure(5)
= {1,2,3,6,7}
= D

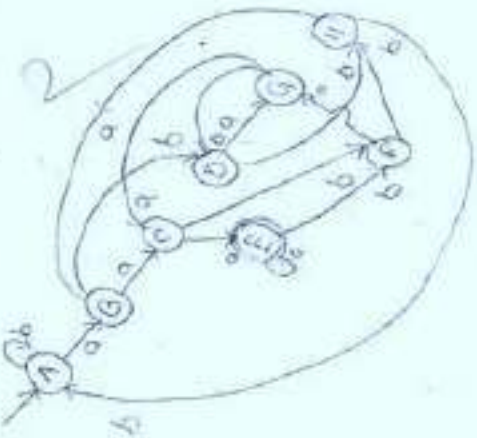
Dtrans(H,a) = Dtrans({1,2,3,8},a)
= ε-closure(4) ∪ ε-closure(5)
= {1,2,3,4,5}
= E

Dtrans(H,b) = Dtrans({1,2,3,8},b)
= ε-closure(7)
= {1,2,3}
= B

Transition Table:

State	Input a	Input b
A	B	A
B	C	D
C	E	F
D	G	H
*E	E	F
F	G	H
G	C	D
H	B	A

Transition diagram:



90/100

Sample Question Paper Academic year 2021-2022

ANJALAI AMMAL-MAHALINGAM ENGINEERING COLLEGE-KOVILVENNI 614 403

Max Marks: 50	Internal Assessment Test-I	Date & Session: 22.04.2022 & AN
Time: 2 Hours 2.30 PM – 4.30 PM	Semester/Branch/Section VI/CSE/A & B	Subject code: CS8602
Handled by: Mr.P.Manikandaprabu Prepared by: Dr G.Nanthakumar	Subject Name: Compiler Design	Register Number: 8 2 0 4

Instructions: (1) Answer all the questions.

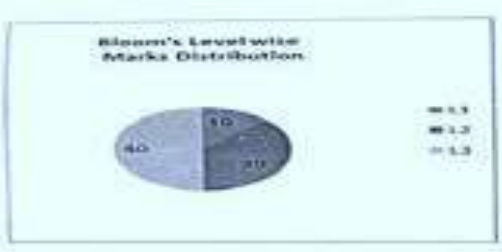
Part A (10 x 2 = 20)

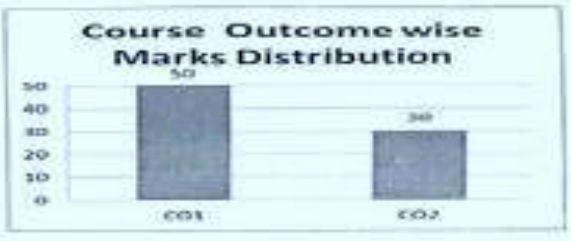
Qn No	Question	Marks	CO	BL	PO	PI Code
1	Differentiate compiler with interpreter.	2	1	L2	PO1	1.7.1
2	Show the structure of language processing system.	2	1	L2	PO1	1.7.1
3	Describe analysis and synthesis phase of a compiler	2	1	L2	PO1	1.7.1
4	Define pattern, lexeme and tokens.	2	1	L1	PO1	1.7.1
5	List the error recovery techniques used by the lexical analyzer	2	1	L1	PO1	1.7.1
6	List the two ways of top-down parsing	2	2	L1	PO1	1.7.1
7	Define Recursive Descent Parsing.	2	2	L1	PO1	1.7.1
8	Identify the Error Recovery techniques in syntax analysis.	2	2	L2	PO1	1.7.1
9	Define left recursion and left factoring.	2	2	L1	PO1	1.7.1
10	Describe the role of parser. Give its types.	2	2	L2	PO1	1.7.1
	Part B (3 x 10 = 30)					
11(a)	Explain the various phases of compiler in detail .Also write down the output for the expression after each phase **p = i+ r * 60**	10	1	L2	PO1 PO2	1.7.1 2.5.2
	(OR)					
11(b)	Construct a NFA using Thompson's construction algorithm for the regular expression **(a|b)*abb (a|b)*abb**	10	1	L3	PO2	2.5.2
12 (a)	Construct DFA directly from the regular expression **(a|b)*abb**	10	1	L3	PO2	2.5.2
	(OR)					
12(b)	Construct DFA from NFA for the regular expression (a|b)*(a|b) (a|b)	10	1	L3	PO2	2.5.2
13(a)	Explain predictive **parser with algorithm.**	10	2	L2	PO1	1.7.1
	(OR)					
13(b)	Construct predictive parsing table for the following CFG E→E+T|T T→T*F|F F→(E)|id	10	2	L3	PO2	2.5.2

Bloom's Level: L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create

Mark Distribution for Internal Assessment Test I

CO	Mark	Remember	Understand	Apply	Analyze	Evaluate	Create
CO1	50	04	16	30	-	-	-
CO2	30	06	14	10	-	-	-
Total	80	10	30	40	-	-	-





Scheme of Evaluation



ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES
(AUTONOMOUS)
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Internal Assessment Test-I
Scheme of Evaluation

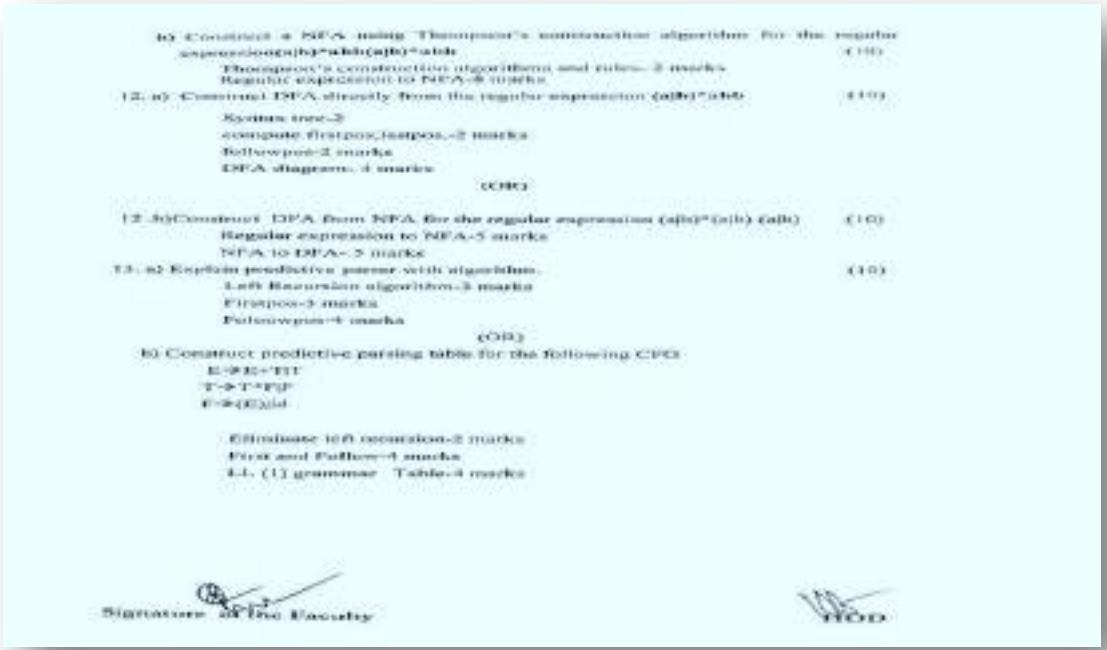
Subject Code : C30502 — Date : 18-09-24
Subject Name : Compiler Design — Branch: III B.Tech
Course Teacher : Abdulkadir Pasha.P — Semester : V

Answer all the Questions

1. Differentiate compiler with interpreter.
   Differences- 5 marks
2. Show the structure of language processing system
   Structure- 2 marks
3. Describe the analysis and synthesis phase of a compiler
   analysis phase- 5 mark
   synthesis phase- 5 mark
4. Define pattern, lexeme and tokens
   Definition- 5 marks
5. List the error recovery techniques used by the lexical analyzer
   Any two error recovery techniques – 5 marks
6. List the two ways of top-down parsing
   two ways of top-down parsing -5 marks
7. Define Recursive Descent Parsing:
   Definition-5 marks
8. Identify the Error Recovery techniques in syntax analysis.
   Any two error recovery techniques – 5 marks
9. Define left recursion and left factoring.
   Definition of left recursion -5 mark
   Definition of left factoring 5 mark
10. Describe the role of parser. Give the types.
    Role of parser-5 marks

PART – B(5*10=50 Marks)

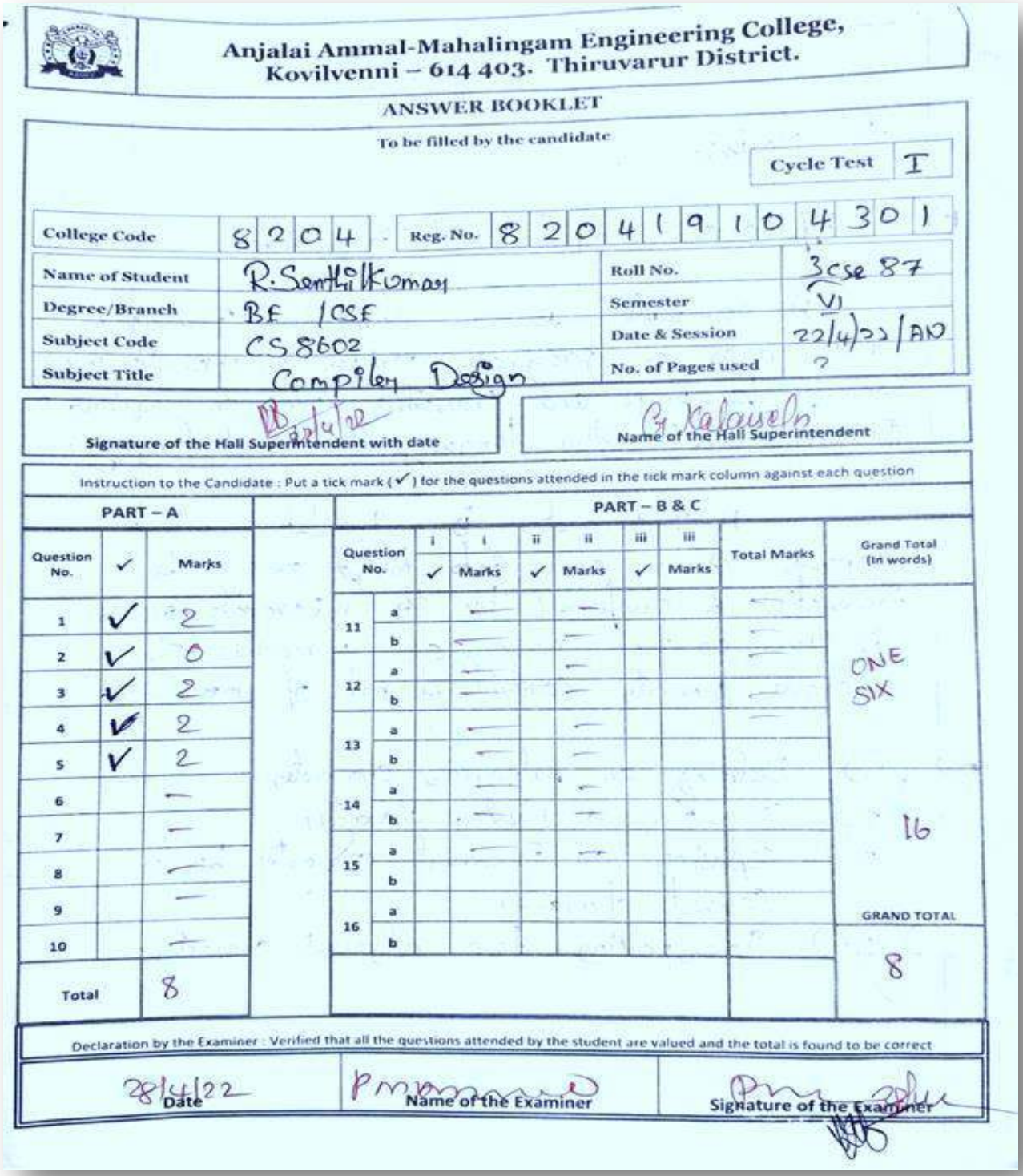
11. a) Explain the various phases of compiler in detail .Also write down the output for the expression after each phase p = 34 + r * 60 (10)
    Six phases -5 marks
    Explanation for all six phases with example -5 marks
    Output of p = 34 + r * 60 -5 marks
    (OR)



b) Construct a NFA using Thompson's construction algorithm for the regular expression(a|b)*abb(a|b)*aab (10)
   Thompson's construction algorithm and rules- 5 marks
   Regular expression to NFA-5 marks
12. a) Construct DFA directly from the regular expression (a|b)*(a|b) (10)
   Syntax tree-2
   compute firstpos,lastpos,-2 marks
   followpos-2 marks
   DFA diagram- 4 marks
   (OR)
12. b)Construct DFA from NFA for the regular expression (a|b)*(a|b) (a|b) (10)
   Regular expression to NFA-5 marks
   NFA to DFA- 5 marks
13. a) Explain predictive parser with algorithm. (10)
   Left Recursion algorithm-3 marks
   Firstpos-3 marks
   Followpos-4 marks
   (OR)
b) Construct predictive parsing table for the following CFG
   E->E+T|T
   T->T*F|F
   F->(E)|id

   Eliminate left recursion-2 marks
   First and Follow-4 marks
   LL (1) grammar Table-4 marks

Signature of the Faculty — HOD



Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni – 614 403. Thiruvarur District.

ANSWER BOOKLET

To be filled by the candidate

Cycle Test: I

College Code	8204	Reg. No.	820419104301
Name of Student	R. Senthilkumar	Roll No.	3CSE87
Degree/Branch	BE / CSE	Semester	VI
Subject Code	CS8602	Date & Session	22/4/22 / AN
Subject Title	Compiler Design	No. of Pages used	7

Signature of the Hall Superintendent with date: 22/4/22

Name of the Hall Superintendent: G. Kalaiselvi

Instruction to the Candidate : Put a tick mark (✓) for the questions attended in the tick mark column against each question

PART – A

Question No.	✓	Marks
1	✓	2
2	✓	0
3	✓	2
4	✓	2
5	✓	2
6		—
7		—
8		—
9		—
10		—
Total		8

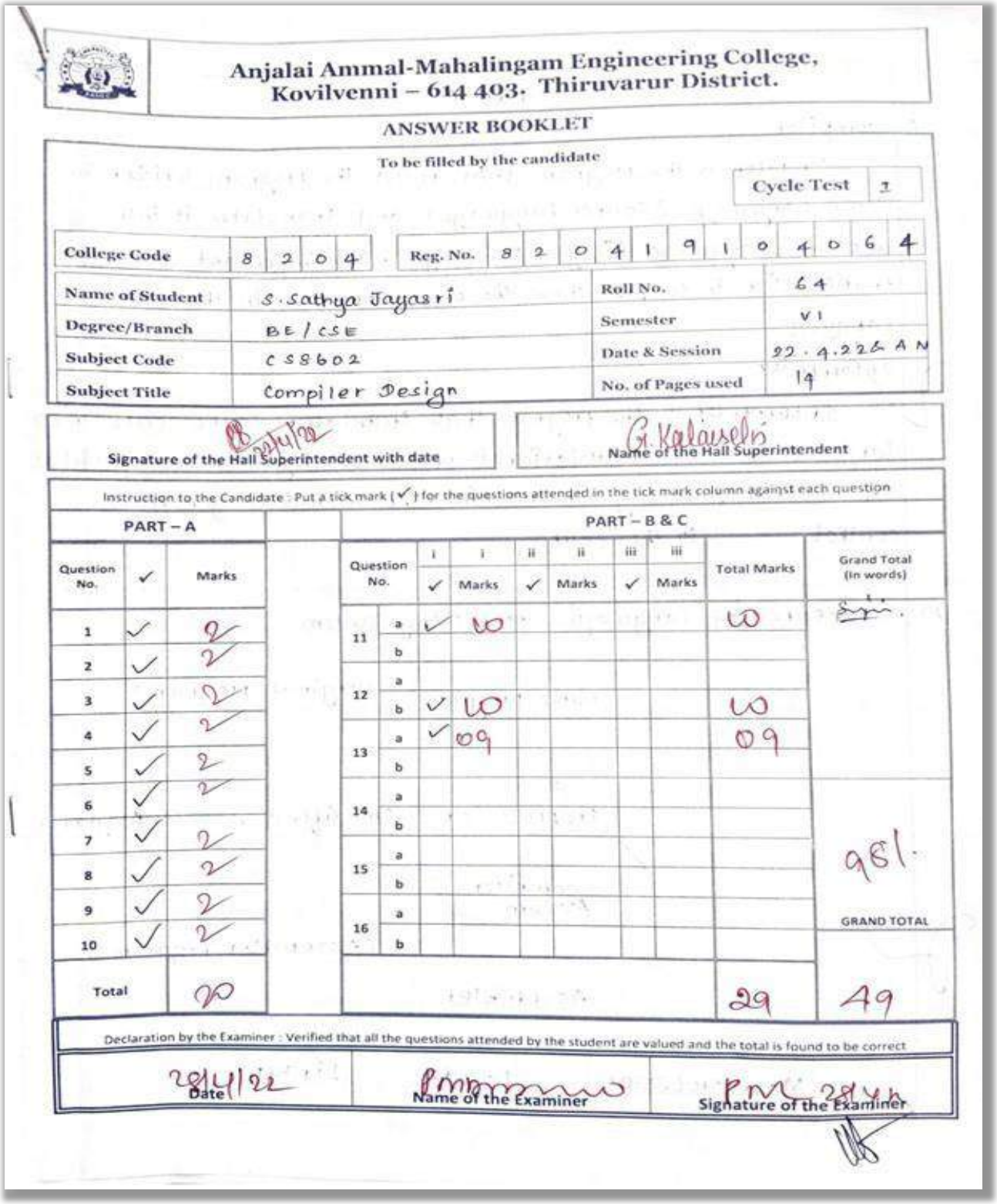
PART – B & C

Question No.		i ✓	i Marks	ii ✓	ii Marks	iii ✓	iii Marks	Total Marks	Grand Total (In words)
11	a		—		—			—	ONE SIX
	b		—		—			—	
12	a		—		—			—	
	b		—		—			—	
13	a		—		—			—	
	b		—		—				
14	a		—		—				16
	b		—		—				
15	a		—		—				
	b								
16	a								GRAND TOTAL
	b								8

Declaration by the Examiner : Verified that all the questions attended by the student are valued and the total is found to be correct

Date	Name of the Examiner	Signature of the Examiner
28/4/22	P M [illegible]	

Sample Answer sheets



Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni – 614 403. Thiruvarur District.

ANSWER BOOKLET

To be filled by the candidate

Cycle Test 1

College Code	8204	Reg. No.	820419104064
Name of Student	S. Sathya Jayasri	Roll No.	64
Degree/Branch	BE/CSE	Semester	VI
Subject Code	CS8602	Date & Session	22.4.22 AN
Subject Title	Compiler Design	No. of Pages used	14

Signature of the Hall Superintendent with date 22/4/22

Name of the Hall Superintendent G. Kalaiselvi

Instruction to the Candidate : Put a tick mark (✓) for the questions attended in the tick mark column against each question

PART – A

Question No.	✓	Marks
1	✓	2
2	✓	2
3	✓	2
4	✓	2
5	✓	2
6	✓	2
7	✓	2
8	✓	2
9	✓	2
10	✓	2
Total		20

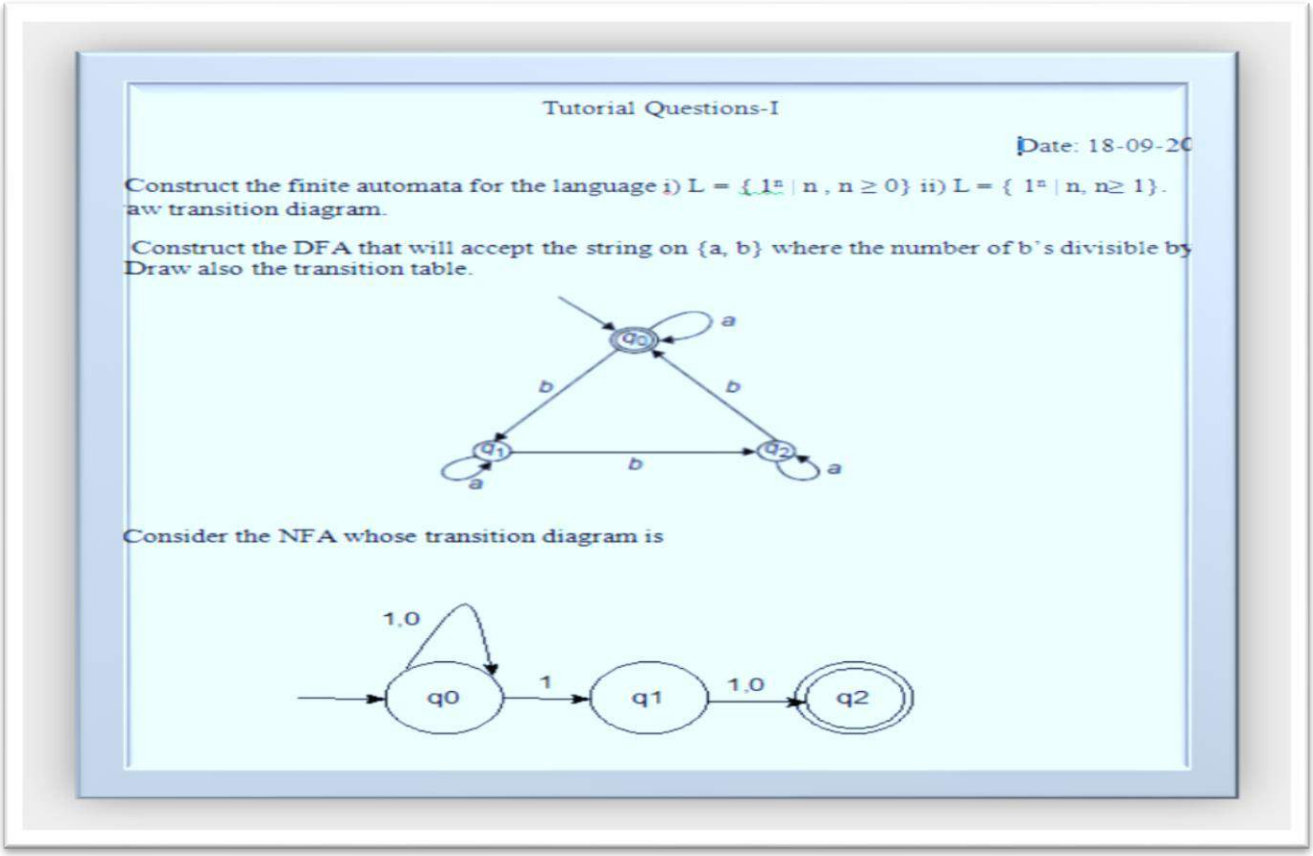
PART – B & C

Question No.		i ✓	i Marks	ii ✓	ii Marks	iii ✓	iii Marks	Total Marks	Grand Total (in words)
11	a	✓	10					10	
	b								
12	a								
	b	✓	10					10	
13	a	✓	09					09	
	b								
14	a								
	b								
15	a								98
	b								
16	a								GRAND TOTAL
	b								
								29	49

Declaration by the Examiner : Verified that all the questions attended by the student are valued and the total is found to be correct

Date 28/4/22 | Name of the Examiner | Signature of the Examiner 28.4.22

Tutorial Question



2.2.2. Quality of student projects (25)

Identification of projects and allocation methodology.

Students are informed to form their batches and register with the project coordinators.

Project work may be allotted to a single student or to a group of students not exceeding four per group.

After registration, they will receive project batch identification number which is issued as reference throughout the academic year. Faculty members need to propose their domain of interest and the same willbe displayed in the notice board.

HoD along with project coordinator will allocate the guides based on their domain and expertise. The students approach the project guide and discuss the ideas.

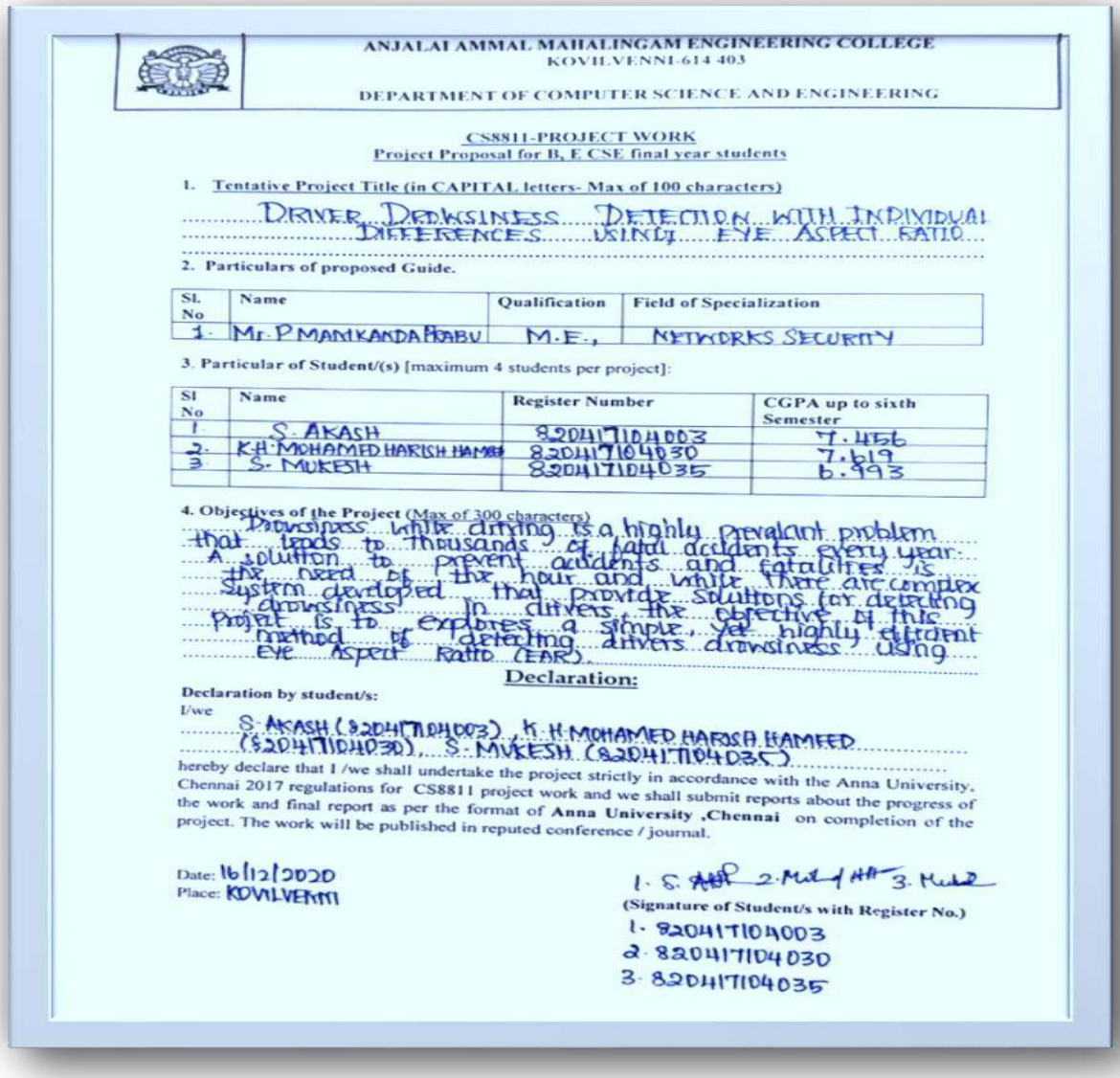
Then they are informed to submit the detailed project proposal and present before the committee, the committee suggest any modifications need to be incorporated.

Initiatives taken

The faculty member motivates the students to carry out projects in college by providing essential resources.

Further the students are encouraged to participate in project exhibitions, present/publish their work in conferences/journals. Also encouraged to apply for funds under various external funding schemes such as TNSCST/AICTE etc.

Project Proposal form



ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI-614 403

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CS8811-PROJECT WORK
Project Proposal for B, E CSE final year students

1. Tentative Project Title (in CAPITAL letters- Max of 100 characters)

DRIVER DROWSINESS DETECTION WITH INDIVIDUAL DIFFERENCES USING EYE ASPECT RATIO

2. Particulars of proposed Guide.

Sl. No	Name	Qualification	Field of Specialization
1.	Mr. P MANIKANDA BABU	M.E.,	NETWORKS SECURITY

3. Particular of Student/(s) [maximum 4 students per project]:

Sl No	Name	Register Number	CGPA up to sixth Semester
1.	S. AKASH	820417104003	7.456
2.	K.H. MOHAMED HARISH HAMEED	820417104030	7.619
3.	S. MUKESH	820417104035	6.993

4. Objectives of the Project (Max of 300 characters)

Drowsiness while driving is a highly prevalent problem that leads to thousands of fatal accidents every year. A solution to prevent accidents and fatalities is the need of the hour and while there are complex system developed that provide solutions for detecting drowsiness in drivers, the objective of this project is to explores a simple, yet highly efficient method of detecting drivers drowsiness using eye aspect ratio (EAR).

Declaration:

Declaration by student/s:

I/we S. AKASH (820417104003), K.H. MOHAMED HARISH HAMEED (820417104030), S. MUKESH (820417104035)

hereby declare that I /we shall undertake the project strictly in accordance with the Anna University, Chennai 2017 regulations for CS8811 project work and we shall submit reports about the progress of the work and final report as per the format of **Anna University ,Chennai** on completion of the project. The work will be published in reputed conference / journal.

Date: 16/12/2020
Place: KOVILVENNI

1. S. 2. 3.

(Signature of Student/s with Register No.)

1. 820417104003
2. 820417104030
3. 820417104035

Process for monitoring and evaluation

The Head of the Institutions shall constitute a review committee for project work for the department. There shall be three reviews during the semester by the review committee. The student shall make presentation on the progress made by him/her before the committee. The total marks obtained in the three reviews shall be reduced for 20 marks and rounded to the nearest integer. The project coordinators appointed by the Head of the dep project work

The students should meet their respective guide once a week and update their progress. The Rubrics for evaluation of UG Project work as shown in the table

Table: Rubrics for evaluation of UG Project Work

Review No	Agenda	Review Assessment weightage (Marks)
1	Review I	5
2	Review II	7.5
3	Review III	7.5

The student shall make presentation on the progress made by him/ her before the committee.

The total marks obtained in the three reviews shall be reduced for 20 marks and rounded to the nearest integer.

During the presentation the concerned group must clarify the questions and doubts raised by the audience and review committee. Finalized project report duly signed by their concerned guide is submitted to coordinators.

Sl.no	Academic Year	Type ofreview	Members	Reviewdate
1.	2023-2024	Zeroth Review	Project Coordinator/ Members of project review committee/guide	07.02.2024 & 09.02.2024
2.		First Review	Project Coordinator/ Members of project review committee/guide	21.03.2024
3.		Second Review	Project Coordinator/ Members of project review committee/guide	20.04.2023
4.		Third Review	Project Coordinator/ Members of project review committee/guide	27.04.2024
5.		Submission of the project book	Project Coordinator	03.05.2024
1.	2022-2023	Zeroth Review	Project Coordinator/ Members of project review committee/guide	07.02.2023 & 09.02.2023
2.		First Review	Project Coordinator/ Members of project review committee/guide	21.03.2023
3.		Second Review	Project Coordinator/ Members of project review committee/guide	20.04.2023
4.		Third Review	Project Coordinator/ Members of project review committee/guide	03.05.2023 & 09.05.2023
5.		Submission of the project book	Project Coordinator	15.05.2023
6.		Zeroth Review	Project Coordinator/ Members of project review committee/guide	14.03.2022
7.		First Review	Project Coordinator/ Members of project review committee/guide	02.05.2022 & 04.05.2022

8.	2021-2022	Second Review	Project Coordinator/ Members of project review committee/guide	13.05.2022 & 14.05.2022
9.		Third Review	Project Coordinator/ Members of project review committee/guide	13.06.2022 & 14.06.2022
10.		Submission of the project book	Project Coordinator	20.06.2022
11.	2020-2021	Zeroth Review	Project Coordinator/ Members of project review committee/guide	21.12.2021
12.		First Review	Project Coordinator/ Members of project review committee/guide	28.12.2021
13.		Second Review	Project Coordinator/ Members of project review committee/guide	10.03.2021
14.		Third Review	Project Coordinator/ Members of project review committee/guide	30.03.2021
15.		Submission of the project book	Project Coordinator	-
16.	2019-2020	Zeroth Review	Project Coordinator/ Members of project review committee/guide	03.01.2020
17.		First Review	Project Coordinator/ Members of project review committee/guide	30.01.2020
18.		Second Review	Project Coordinator/ Members of project review committee/guide	03.02.2020
19.		Third Review	Project Coordinator/ Members of project review committee/guide	17.08.2020
20.		Submission of the project book	Project Coordinator	-
21.	2018-2019	Zeroth Review	Project Coordinator/ Members of project review committee/guide	26.12.18
22.		First Review	Project Coordinator/ Members of project review committee/guide	04.02.19
23.		Second Review	Project Coordinator/ Members of project review committee/guide	05.03.19
24.		Third Review	Project Coordinator/ Members of project review committee/guide	22.03.19

25.		Submission of the project book	Project Coordinator	

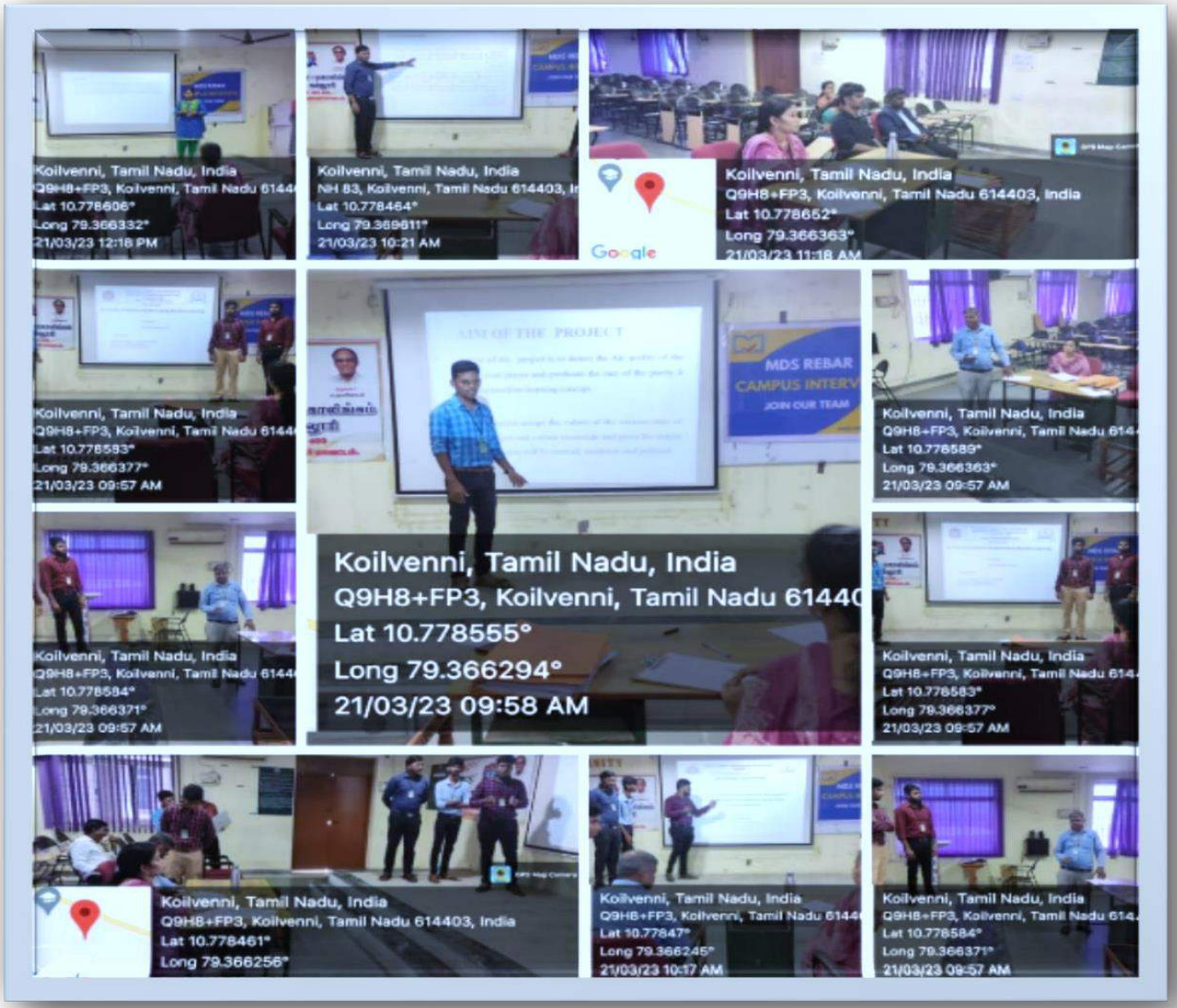
CS 8811-Project Work

Project Review I by our Alumni

Name of the Alumni: Ms. R.Veena B.E

Name of the Company: M/s Vuram Technology Soluitions, Chennai

Date of Review: 21.03.23 Class: IV CSE A &B



Project Review II by our Alumni

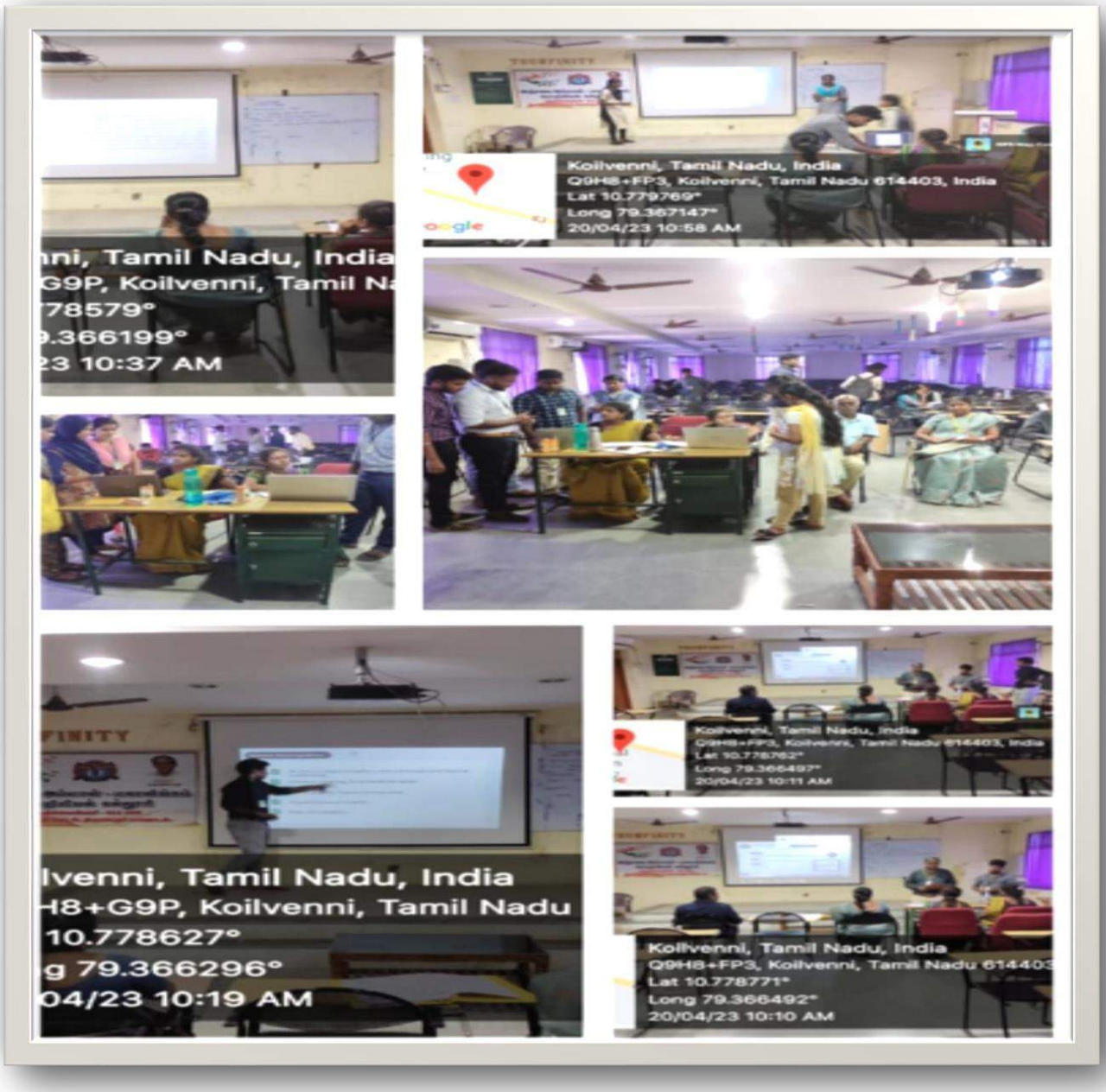
Name of the Alumni: Ms. M.Priyanka M.E – Ph.D, Research scholar

Name of the organization: Sastra University, Kumbakonam

Name of the Alumni: Ms.B. Pavitha M.E

Name of the organization: Ivy mobility, Chennai

Date of Review: 20.04.23
Class: IV CSE A & B



Project Review III by our Alumni
Name of the Alumni: Mr.P.Rajarajan B.E
Name of the organization: Tcare, Chennai
Name of the Alumni: S.Surya B.E
Name of the organization: Softcrylic Technology Solutions India Pvt Ltd, Chennai
Date of Review: 09.05.23
Class: IV CSE A & B



Quality of completed projects

The quality of major projects for the fourth year students is thoroughly verified andensured for all the projects of the last three years

Project List based on Domain Name -Academic Year 2023-2024

Sl.No	Register Number	Name	Domain Name	ProjectTitle	Conference/ Journal Name
1	820420104009	P.DEVADHARSHINI	Smart Town/City	Citizenconnectbot (Ccb) – The Interactive Guide To Government Schemes	International Journal of Science and Research Archive (IJSRA)
	820420104029	T.KASTHURI			
	820420104034	N.MONISHA			
2	820420104004	A.ABINESH	Agritech & Food Technology	Iot Based Smart Irrigation System Using Artificial Intelligence	International Journal Of Advanced Research In Science,
	820420104020	K.R.GANESH			
	820420104025	V.HARISH			

	820420104035	S.NAGENDRAN			Communication And Technology (IJARSCT)
3	820420104021	R.GAYATHRI	Agritech & Food Technology	Interactive Ai Chatbot For Mental Illness	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104044	R.PUGAZINI			
4	820420104005	M.ABIYA	Smart Town/City	Anti-Semitic Speech Detection And Classification In Online Social Network Using Deep Learning	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104015	V.DIVYA BHARATHI			
	820420104036	R.NANDHINI			
5	820420104003	V.ABINAYA	Smart Town/City	Application To Detect Fake Social Media Profiles Using Blockchain	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104010	R.DEVADHARSHINI			
	820420104042	S.PREETHI			
6	820420104016	V.DIVYA PRABA	Smart Town/City	Human Detection In Catastrophe Scenarios Using Uav And Deep Learning Techniques	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104038	G.NUHA			
7	820420104012	A.DHANASRI			
	820420104018	R.DURGA	Agritech & Food Technology	A Smart Solution For Minimizing Urban Food Wastage And Alleviating Hunger	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104026	K.IHSHANAFARVEEN			
	820420104041	R.PREETHI			
8	820420104014	D.DIVYA	Health/Med Tech	Kidney Disease Prediction With Encrypted Data Sharing In Health Care	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104019	P.DURGASHINI			
	820420104032	K.MAHALAKSHMI			
	820420104033	S.MIRUDHULANI			
9	820420104039	S.PRAVEEN	Agritech & Food Technology	A Smart Food Donation System Using Mobile Technology To Reduce Food Waste	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104023	S.GUHAN			
	820420104007	K.BALA			
	820420104027	K.JAGADESH			
10	820420104022	C.GNANAPRAKASH	Smart Town/City	Personalized Nutrition Analyzer Using Artificial Intelligence	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104024	K. HARI SANKAR			
	820420104028	S. KARTHIKESAN			
	820420104037	N. NISHAR AHAMED			

11	820420104013	A .DHINESH	Agritech & Food Technology	Medicinal Plant Identification Using Machine Learning	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104011	V.DEVANEESWAR			
	820420104002	J. ABDUL FAZITH			
	820420104073	R. TULASI KRISHAN			
12	820420104008	S. K . BALAJI	Smart Town/City	E-Commerce Site For Artisans	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104017	B. DURAI LAKSHMANAN			
	820420104040	B.PRAVEEN KUMARAN			
13	820420104043	M.PREM	Education 4.0	Pathfinder-Career Guidance Using Artificial Intelligence	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104030	A.KODIESWARAN			
	820420104006	A.ARUN			
	820420104031	K.KUMANAN			
14	820420104047	V.RAKSHANAA	Agritech & Food Technology	Satellite Imagery System for Pruning Vegetation Interference in Power Transmission Lines	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104066	S.SUBASHINI			
15	820420104082	S.VISHNU PRIYA	Heritage & Culture	Indigenous heritage hub	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104065	M.R.SRIVAISHNAVI			
	820420104063	B.SNEGAVATHI			
16	820420104070	S.SWATHI SHREE	Education 4.0	Eduplay - interactive game based learning platform	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104061	A.SHWETHA			
	820420104075	T.VARSHA			
17	820420104049	K.REYAA	Smart Town/City	Livestock Shelter Management Using Iot And Ml	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104051	R.RUBIKA			
	820420104067	J.SUBHADHARANI			
18	820420104045	R.RAGUL KULOTHUNGAN	Agritech & Food Technology	Awareness about the agriculture needs through interactive web application for farmers	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104057	S.SARUKESH			
	820420104076	K.VARUN			
19	820420104053	S.SAILESH	Smart Town/City	Fitnourish: smart	International Journal Of

	820420104052	S.SABEER AHMED		nutrition tracker for fitness enthusiasts	Advanced Research In Science, Communication And Technology (IJARSCT)
20	820420104046	R.RAJESWARAN	Agritech & Food Technology	Zerohunger link : bridging food waste and hunger gaps-an integrated approach	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104058	I.SELVINRAJ			
	820420104079	K.S.VIKESH			
21	820420104071	K.SWEETHA	Agritech & Food Technology	Crop recommendation system using machine learning	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104069	S.SUREKA			
22	820420104302	I.DHIVYA DHARSHINI	Smart Town/City	Farmtechbot(FTB): Empowering Farmers For Better Harvest	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104050	B.RUBAVARSHINI			
	820420104072	T THIRUMULLAI			
23	820420104078	K.VIJAY	Health/Med Tech	Chatbot for Mental Health Treatment	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104083	B.S.VISHNU VARDHAN			
	820420104701	S.BHARATH RAJ			
24	820420104060	K.SHAKTHI BHARATHI	Smart Town/City	Ai - nutrition analyzer for fitness	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104048	N.RAMYA			
25	820420104059	S.SERAN	Health/Med Tech	Analytic tool for Healthcare Data of Patients in Hospitals	Patent publications
	820420104056	S.SANJAY			
	820420104055	R.SAKTHIYASEELAN			
	820420104306	R.SIVASANKAR			
26	820420104080	S.VINOTHKUMAR	Smart Town/City	Iot Based Real-Time Street Light Fault Detection and Maintenance System with Machine Learning Driven Solution Prediction	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104081	S.VINOTHKUMAR			
27	820420104062	K.SIBI	Agritech & Food Technology	Develop image processing software using machine learning	International Journal Of Advanced Research In Science,
	820420104068	B.SUDHIR			
	820420104074	A.VANTHIYATHEVAN			

	820420104084	K.YOGESHWARAN		to identify medicinal plants, aiding authenticity and supply chain integrity.	Communication And Technology (IJARSCT)
28	820420104077	R.VIGNESH	Smart Town/City	Government schemes chatbot using machine learning and deep learning techniques	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104064	R.M.SRI HARI			
	820420104054	R.SAIVASANTH			
29	820420104301	M.ARAVINTH	Education 4.0	Career guidance using machine learning	International Journal Of Advanced Research In Science, Communication And Technology (IJARSCT)
	820420104303	M.KANNAN			
	820420104304	P.SANJAI			
	820420104305	R.SANKAR			

Academic Year 2022-2023

S.No	Name	Register Number	Domain Name	ProjectTitle	Conference/ Journal Name
1	Niranjan M	820419104043	AI and ML	Air Quality Prediction Based on Machine Learning	International Journal of Advanced Research in Science, Communicationand Technology
	Dinesh Kumar	820419104020			
	Naveen K	820419104041			
2	Juhaif Ahamed H	820419104027	AI and ML	Detection of Diabetic Retinopathy from the Funds Photography using Deep Learning Method	International Journal of Advanced Research in Science, Communicationand Technology
	Balaji M	820419104012			
	Harish B	820419104024			
3	Abitharani A	820419104002	AI and ML	Drone-Assisted Secure Healthcare with AI/ML Algorithm and BigData Analytics for6g Wireless Communication inthe Future	International Journal of Advanced Research in Science, Communicationand Technology
	Atchaya R	820419104010			
	Nishanthini V	820419104044			
4	T.Desika	820419104016	AI and ML	Enhancing Crop Yield with	International Journal of Advanced Research in
	N.Jeevitha	820419104026			

	R.Keerthika	820419104029		AnimalDetection in Agricultural Land Using Convolutional Neural Network and Sound-Based Scare Tactics	Science, Communicationand Technology
5	Dhivya V	820419104019	IOT	Efficient Brain Tumor Segmentation usingU-Net Architecture	Gradiva Review Journal
	Mohamed Thahir S	820419104034			
	J.Mubarak	820419104036			
	Mukil I	820419104037			
6	R.Arivazhagi	820419104008	AI and ML	Hand Gesture Recognition for Virtual Mouse and Keyboard :A Novel Human-Computer Interaction Approach.	International Journal of Advanced Research in Science, Communicationand Technology
	G.Deepika	820419104014			
	J.Dharshini	820419104017			
7	J.Aburva	820419104003	AI and ML	Victual Analysis and Sustenance Support Using Deep Learning (Mask R-Cnn)	Gradiva Review Journal
	S.Ashifa Sherene	820419104009			
	E.Deebu Rubiya	820419104013			
8	Karthikeyan A	820419104028	AI and ML	Crop Prediction and Crop Quantity Suggestion based on the Characteristics of Agricultural Environment usingMachine Learning Techniques	International Journal of Multidisciplinary Research Transactions
	Muthulakshmi M	820419104038			
9	Akshaya.G	820419104005	AI and ML	Subjective Answer Evaluation Using Machine Learningand	International Journal of Multidisciplinary Research Transactions
	Manoshree.T	820419104033			

				Natural Language Processing	
10	Alex S Nandhini V	820419104006 820419104039	Networking	A Novel Improved Quality of Service Framework for Multimedia Streaming over 6g Network using Beat Architecture	International Journal of Advanced Research in Science, Communication and Technology
11	R.Divyasree E.Gowtham S.Guruharan	820419104021 820419104022 820419104023	AI and ML	Data Driven Analysis of Insurance Claim using Machine Learning Algorithm	International Journal of Advanced Research in Science, Communication and Technology
12	Balaji K Iyappan K Manoj Kumar T	820419104011 820419104025 820419104032	AI and ML	Phishing Website Detection using Machine Learning Rules with Cryptography Technique	International Journal of Advanced Research in Science, Communication and Technology
13	Arivazhagan.S Ajith Kumar.P Dhilip Kumar P Nathish B	820419104007 820419104004 820419104001 820419104042	Network Security	Revolutionizing Land Ownership Records: A Secure and Transparent Blockchain-Based Land Registration System.	Gradiva Review Journal
14	Manikandan.R Mohamed Yasar A Mathesh V Naveen Kumar G	820419104031 820419104035 820419104030 820419104042	Data Mining	Recommendation System For Newly Published Research Papers Using Joint Multi Relation Model	International Journal Of Advanced Research In Science, Communication And Technology
15	Nivedha.K Vinoth Kumar.M Veerenthiran.S	820419104047 820419104085 820419104080	AI and ML	Cryptocurrency Price Predictor Using Machine Learning,	Arabian Journal for Science and Engineering (AJSE)

				Performance Tracker And Data Visualization	
16	Venkadasubramanian.D	820419104082	Network Security	Raven: Nft Based Land Record SystemUsing Blockchain	International Journal of Advanced Research in Science, Communication and Technology
	Santhosh Kumar.R	820419104060			
	Sudharsan.S	820419104075			
17	Peararul selvi.S	820419104048	AI and ML	Road Accident Severity Prediction Using MachineLearning	International Journal of Advanced Research in Science, Communication and Technology
	Saraswathi.M	820419104062			
	Subasri.M	820419104074			
18	Nithyashree.R	820419104046	Network Security	U-Medchain A Block Chain Based SystemFor Medical Records Access And Permissions Management	International Journal of Advanced Research in Science, Communication and Technology
	Subasri.D.R	820419104073			
	Sivanandhini.R	820419104068			
19	Samyukthasri.R.M	820419104056	AI and ML	Detection Of Melanoma (Skin Cancer) Using Convolutiona LlNeural Network	International Journal of Advanced Research in Science, Communication and Technology
	Saranya.R	820419104061			
20	Santhoshini.M	820419104059	AI and ML	Predicting The Price Of Bitcoin Using Lstm Recurrent Neural Network	International Journal of Advanced Research in Science, Communication and Technology
	Vaishnavi.P	820419104078			
	Tamil Prabha.R	820419104077			
21	Preethiyangaradevi A	820419104051	AI and ML	Robust Image Forgery Detection Over Online Social Network Shared Images	International Journal of Advanced Research in Science, Communication and Technology
	Shalini.S	820419104066			
22	Sanmathi.R	820419104057	AI and ML	Stroke Disease Prediction And Classification Using Machine Learning	Gradiva Review Journal
	Sri Vidhya Sri.R	820419104072			

23	Soundharya.P	820419104070	AI and ML	Data Poison Detection Using MachineLearning	International Journal of Advanced Research in Science, Communication and Technology
	Sugashini.T	820419104076			
24	Sathya Jayasri S	820419104064	AI and ML	Network Intrusion Prediction Using MachineLearning	International Journal of Advanced Research in Science, Communication and Technology
	Vijithra.P	820419104084			
25	Santha Kumar.P	820419104058	Network Security	Improved User Authenticated KeyManagement Scheme for 6G Based Industrial Applications	International Journal of Advanced Researchin Science, Communication and Technology
	Senthil Raj.R	820419104065			
	Nithish.E	820419104045			
	Ram Kumar.R	820419104054			
26	Prasanna.S	820419104049	AI and ML	Fraudulent Banking Transaction Classification Using Deep Learning Algorithm	International Journal of Advanced Research in Science, Communication and Technology
	Siva Ranjan.K	820419104069			
	Senthil Kumar.R	820419104301			
27	Srinivas.P.R	820419104071	Network Security	Secureab - Automatic Banking System Using Blockchain	International Journal of Advanced Research in Science, Communication and Technology
	Vasanth.R	820419104079			
	Vignesh.T	820419104083			
28	Pravin.A	820419104050	AI and ML	Diagonosis Of Heart Disease Using Machine Learning Algorithms	International Journal of Advanced Research in Science, Communication and Technology
	Saravanan.M	820419104063			
	Ramji.S	820419104053			
	Sakthi Ganesh.M	820419104055			
29	Vishwa Kumar.K	820419104086	Network Security	A New Light Weight Symmetric Key Encryption Scheme For String Identification	International Journal of Advanced Research in Science, Communication and Technology
	Vengadesh.K	820419104081			
	Sri Ram.M	820419104302			

Academic Year 2021-2022

S. NO	NAME	REGISTER NUMBER	DOMAIN NAME	TITLE	CONFERENCE/ JOURNAL NAME
1	Iswarya R.S	820418104027	Network Security	Security with Block chain for electronic health record management system (DECOY –CLOUD system)	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Jaya Prithvi R	820418104029			
2	Arunprakash R	820418104010	AI and ML	Browser based malicious domain detection through extreme learning machine algorithm	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Karthick S	820418104031			
	Balamurugan G	820418104012			
3	Akshaya.D	820418104007	AI and ML	Image secret sharing using IWTAlgorithm	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Keerthi Kiran K.A	820418104032			
	Mahisha.S	820418104039			
4	Darshini. D	820418104014	AI and ML	Opinion Mining on Twitter datausing machine learning: A case study	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
5	Dhivakar K	820418104018	AI and ML	A deep learning approach for robust detection of BOTS in twitter using transformers model	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Ajaikumar.B	820418104005			
	Mageshwaran.M	820418104037			
6	Dhanasri N	820418104017	Cloud Computing	Integrity Auditing for multicopy in Cloud storagebased on Red Black Tree	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Deepika T	820418104016			
	Madhumitha B	820418104036			
7	Maheswari S	820418104038	Data Mining	A Framework on Online reviews ranking based on set theory for mining using automated pipeline	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Karishmaa S.T	820418104030			
	Ethayasirphy S	820418104021			

8	Hariharasudhan	820418104024	AI and ML	Analyze and Prediction of Bitcoin price using Machine Learning	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Arasu T	820418104009			
9	Ambrish T	820418104008	IoT	The web attack detection systemfor Internet of Things via ensemble classification	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Jagadeesh M.N	820418104028			
	Abishek M	820418104004			
10	Dinesh Kumar R.P	820418104019	AI and ML	Automatic Detection of the Coronavirus Disease From CT Images Using an Convolution Neural Network	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Gothandaraman A	820418104022			
11	Hema S.M	820418104025	AI and ML	Enhancing the learning experience of students by early prediction of student academicperformance using machine learning	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Iswarya M.A	820418104026			
	Akshata D	820418104006			
12	Madhubala R	820418104035	AI and ML	Spam detection technique using machine learning with principlecomponent analysis	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Banu rithika R	820418104013			
	Abinaya S	820418104003			
13	Abdullah Ansar S	820418104001	AI and ML	Palm vein authentication system with secure banking system	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Deepak P	820418104015			
	Kural Anban K	820418104034			
14	Meenatchi.R	820418104040	AI and ML	Stock market prediction using machine learning	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Meera. T	820418104041			
15	Athileshwaran T	820418104011	AI and ML	Analyze and prediction of Bitcoin price using Machine learning	International Journal Of Advanced Research In Science, Communication And
	Abinash P	820418104002			

					Technology(IJARSCT)
16	Durgadevi J	820418104020	AI and ML	Individual Re-identification in Blurred image using SVM/ PCAtechnique	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Sulochana R	820418104073			
	Gunasundari.M	820418104023			
17	Kiruthika S	820418104033	Network Security	A Framework of Non-Fungible Token Marketplace using Blockchain Technology	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Parvatha Sri A	820418104049			
18	Rishi kumar G	820418104054	Network Security	Pocket Certificate Using Double Encryption By combined Cryptography	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Sivasurya G	820418104066			
	Syed Muhammed Ashmueel S	820418104075			
19	Shaqte Rham B	820418104062	AI and ML	Brain Tumor detection usingmachine learning Algorithm	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Shijil Saikumar S	820418104063			
	Soorya K	820418104068			
	Vishnu Kumar P	820418104079			
20	Natarajan S	820418104045	IoT	Fire detection using video processing based on computer vision	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Navaseevagan N	820418104046			
	Sabari Nath B	820418104055			
21	Sneha T	820418104067	Cloud Computing	A Cloud Secure Storage Mechanism Based On Data Dispersion And Encryption	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
22	Shafinathun Rafiya A	820418104061	AI and ML	Fake news detection using machine learning classification models	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
23	Naveena N	820418104047	AI and ML	COVID-19 Future ForecastingUsing Supervised Machine Learning Models	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Suganthi D	820418104072			
	Mounika E	820418104043	AI and ML	AI based Self learning	International

24	Sakthi S	820418104056		Intelligent Information Leakprotection system for IT Companies using BLSTM	Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Shilpa R	820418104064			
25	Serafin.J	820418104060	Network Security	Secure VANET communicationusing Block chain	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Rajeswari.A	820418104053			
	Subathra.R	820418104071			
26	Nikitha S	820418104048	Network Security	Block chain Enabled HealthcareSecure Data Storage System	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
27	Varun M	820418104077	AI and ML	Self-Learning ConversationalAI Chabot using natural language processing	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Pragadeesh S	820418104050			
	Mohamed Riswan MaliqP.S	820418104042			
28	Jayasurya.I	820418104701	AI and ML	Multiple coal classification using deep learning techniques	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Shivakarthikeyan. B	820418104065			
	Narendran.S	820418104044			
29	Yogeshwaran.R	820418104081	AI and ML	AI-powered smart glasses for the blind and visually impaired	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Pragadeshwaran.R	820418104051			
	Santhosh S	820418104057			
30	Venkatesh S	820418104078	AI and ML	Real Time Crash predictionusing machine learning algorithm	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Sayed Ibrahim M	820418104059			
	Viswanathan B.S	820418104080			
	Sathiyan S	820418104058			
31	Priyadharshini R	820418104052	Network Security	A Secure Decentralized cloud storage framework using blockchain technology	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)
	Swetha K	820418104074			
	Vaishnavi G	820418104076			

32	Sowndarya S.V	820418104070	AI and ML	Road Lane Detection using convolutional neural network	International Journal Of Advanced Research In Science, Communication And Technology(IJARSCT)

Academic Year 2019-2020

Batch	Register no	Name of the student	Conferences &Journals
1.	820416104025 820416104036 820416104044 820416104063	H.Dawood S.Indrajit S.Manisankar B.Satham Hussain	ICIRSEM2020 (International conference on intellectual research inscience, engineering and management)
2.	820416104055 820416104064 820416104066	V. Priyangha G. Shanmuga Priya R. Shobana	National conference on emerging trends in computing, control andcommunication technology
3.	820416104002 820416104011 820416104033 820416104034	N.Abarna T.K.Akcshaya N.M.Fahamidha Begum M.Harani	ICIRSEM2020 (international conference on intellectual research in science,engineering and management)
4.	820416104010 820416104035 820416104041 820416104068	M.Akash B.Hariharan M.Kesavan K.Sivasankar	National conference on emerging trends in computing, control andcommunication technology
5.	820416104001 820416104022 820416104030 820416104037	R.Aarthi R.Aruna K.Dheenul Apzan A.S.Ishwarya	ICIRSEM2020 (international conference on intellectual research in science,engineering and management)
6.	820416104006 820416104012 820416104042	S.Abirami G.Akshatha L.Lavanya	Research in science, engineering and management
7.	820416104013 820416104059 820416104072 820416104081	M. AkshayaG.Sandhiya B. SriVidhya S. Swetha	National conference on emerging trends in computing, control andcommunication technology
8.	820416104040 820416104061 820416104069 820416104078	S.KeerthanaR.Santhiya A.Sowmiya L.Susmitha	National conference on emerging trends in computing, control andcommunication technology

9.	820416104004 820416104005 820416104060 820416104083	V.AbinayaS.Abipriya G.SanthiyaM.Uma Bharathy	ICIRSEM2020 (international conference on intellectual research in science,engineering and management)
10.	820416104051 820416104056 820416104074	K.Ponni KK.Rakshana T.Subashree	National conference on emerging trends in computing, control andcommunication technology
11.	820416104021 820416104028 820416104075 820416104082	C. Aruna V. Devi Abirami S. Subathra K.M.Thanga Oviya	National conference on emerging trends in computing, control andcommunication technology
12.	820416104047 820416104308 820416104086	C.Mugesh Shahul Hameed Mohamed Batcha A.Vidhyapathi	ICIRSEM2020 (international conference on intellectual research in science,engineering and management)
13.	820416104003 820416104038 820416104039 820416104065	S.AbinayaA.Jabeena S.Kaviya R.Sherine	ICIRSEM2020 (international conference on intellectual research in science,engineering and management)
14.	820416104027 820416104080 820416104084 820416104085	R.Devadarsini S.Swetha S.VasukiR.Veenaa	Icirsem2020 (international conference on intellectual research in science,engineering and management)
15.	820416104058 820416104071 820416104302	S.Ramar V.Srinivasan S.Jai Santhosh	National conference on emerging trends in computing, control andcommunication technology
16.	820416104029 820416104062 820416104079 820416104048	R.Dhanalakshmi V.Nathesha P.Saranya M.SwarnaReka	National conference on emerging trends in computing, control andcommunication technology
17.	820416104049 820416104050 820416104070 820416104073	K.Nithyakala C.Nithya SriR.Srimathi R.Srividhya	National conference on emerging trends in computing, control andcommunication technology
18.	820416104046 820416104053 820416104087 820416104303	U.K.Mufeed Raman K.Pragadesh V.S.Vignesh P.J.Kisorenath	National conference on emerging trends in computing, control andcommunication technology

19.	820416104052 820416104057 820416104077 820416104304	M.Prabhakaran B.RamachandranS.Suriya P.Manibharath	International Conference on Intellectual Research in Science, Engineering and Management
20.	820416104007 820416104016 820416104018 820416104019	J. Agalya P. Anusha S. Arthi V. Arulanbu	NCRTTC'20: national conference on recent trends and technologies incomputing
21.	820416104067 820416104076 820416104701 820416104702	M.SivabharathiP.Subhiksha P.Subashini M.Subasri	NCRTTC'20: national conference on recent trends and technologies incomputing
22.	820416104054 820416104088 820416104309	E.Premika R.VishnuPriya R.Shobana	National conference on emerging trends in computing, control andcommunication technology
23.	820416104017 820416104024 820416104043 820416104045	S.Arsith R.Charumathi R.ManikandanC.Monisha	International Conference on Intelluctual Research in Science, Engineering and Management
24.	820416104014 820416104026 820416104031 820416104307	N. Akshaya J. Deebika A. Divya AshokDhivare P. Pragathi	NCRTTC'20: national conference on recent trends and technologies incomputing
25.	820416104008	S. Aishwarya	National conference on emerging trends in computing, control andcommunication technology

Academic Year 2018-2019

Batch	Register Number	Name	Conferences & Journals	Title
1.	820415104032 820415104033 820415104073	Mathumitha B Merylen jenow B Thamizhoviyam R	National conference on emergingcomputing and technology	Automated vehicle: Autonomousdriving using SVM Algorithm inSupervised Learning
2.	820415104042 820415104006 820415104045	Noorul rizwana M Arthiga A Poornimadevi R	National Conference on Advance computing and power system	Security Enhancement in creditcard transaction using visual cryptography
3.	820415104008 820415104031 820415104012	Ayeshwariya KKuzhali A Dhivya A	National conference on emerging computing and technology	An approach to solve class imbalance problem using Ensemble Classifier

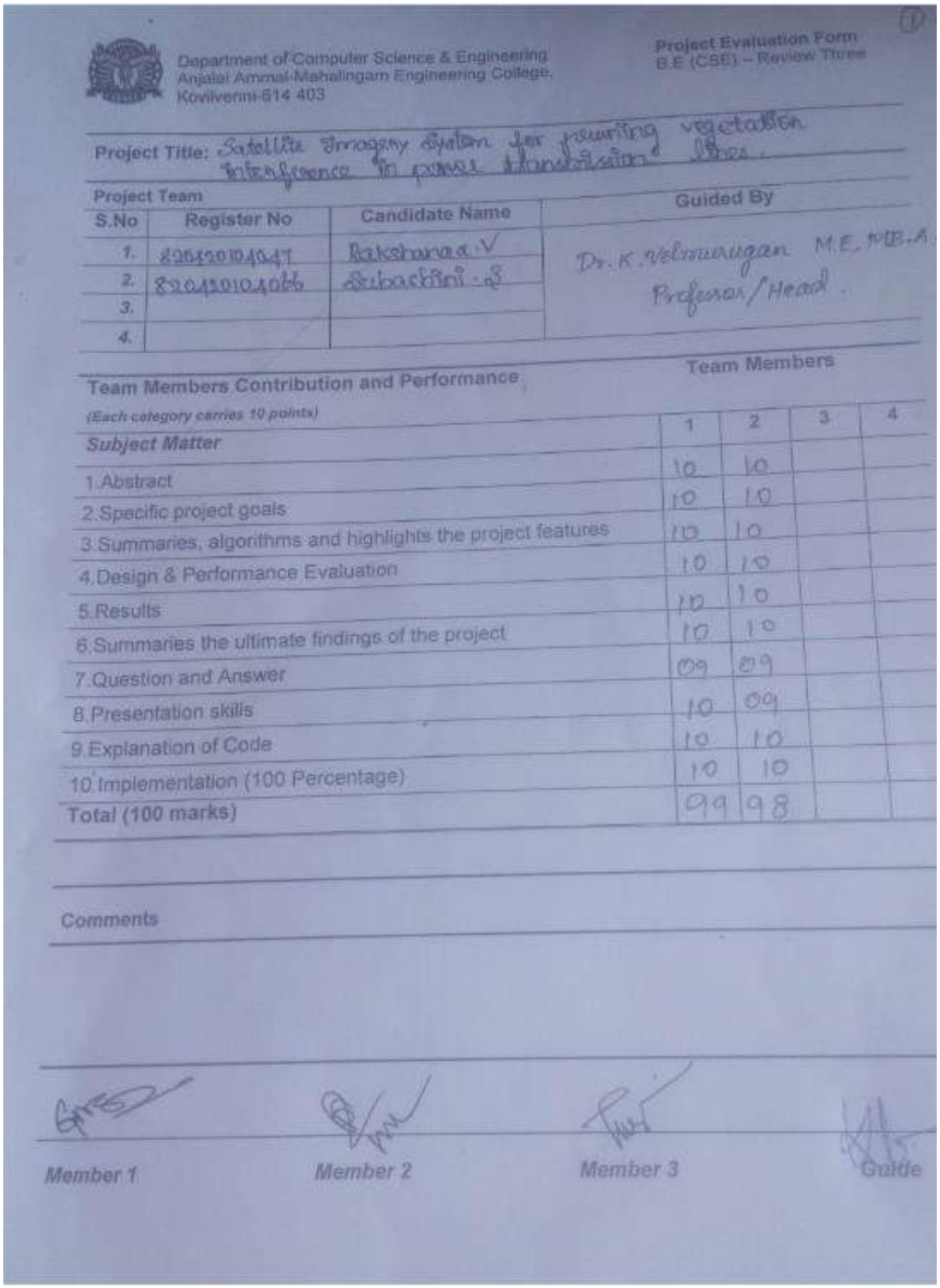
4.	820415104015 820415104003 820415104004	Elakkiya K Abirami R Aishwaryaa E	National Conference on Advance computing and power system	Malicious Nodes Detection in Wireless Ad-hoc Network usingMachine Learning Approach.
5.	820415104002 820415104026 820415104036	Abirami E Jayasri S Nandhini D	National Conference on Advancecomputing and power system	IOT-Driven Automated object detection algorithm for urban surveillance systems in smart cities
6.	820415104050 820415104011 820415104048	Priyanka S Dharani R SPremi M	National conference on emerging computing and technology	Traffic Sign Detection and Recognition of Smart Driver System.
7.	820415104017 820415104023 820415104041	Faril hutha M Haritha R Noor banu N	National Conference on Advance computing and power system	Privilege Based Privacy Protection in Cloud -Based Service
8.	820415104022 820415104043 820415104039	Harini N Padmapriya P Nithya kalyani N	National Conference on Advance computing and power system	Satisfying Bandwidth On Multicast Service In MANETs
9.	820415104007 820415104040 820415104028	Atchaya R Nivedha M Jecintha gracy C	National Conference on Advance computing and power system	Performance Analysis Based onAdjacent Discovery in WirelessAdhoc Networks
10.	820415104018 820415104044	Gayathri R Pooja R	National Conference on Advancecomputing and power system	PL-NET:An enchanced person re-indentification using CNN with zero shot learing problem
11.	820415104014 820415104019	Durgadevi T Greeshma P	National Conference on Advancecomputing and power system	Secured Outsourced DecryptionIn Public Cloud
12.	820415104025 820415104034	Jayapriya SMonika C	National Conference on Advancecomputing and power system	Disaster Management System Using Wireless Sensor Network.
	820415104016	Elamathi R		
13.	820415104301 820415104304	Dineshmuthukrishnan Sundaraesan B	National Conference on Advancecomputing and power system	Alienation and Imitations of Data in Cloud for Optimal Performanceand Security.
14.	820415104024 820415104074 820415104037	Jagan J G.Venkadesan Naveenkumar.S	International journal on Multidisciplinary Research	Voice Based Search Engine ForVisually Impairment Peoples.
15.	820415104010 820415104001 820415104038	Biju B Aakash eswaran S S.NeedhiDevan	International journal on Multidisciplinary Research	An Efficient Polarity Inspectionand Summarization Using Unsupervised and Supervised Method

16.	820415104020 820415104047 820415104062	Guru prasath V Prakash A Santhoshkumar K	International journal on Multidisciplinary Reasearch	Plant Stress Diagnosis On Phenotyping Using Deep Learning.
17.	820415104035 820415104030 820415104029	Muthu manickam C SKishore V Kalyanam B	National Conference on Advancecomputing and power system	Healthy Food RecommendationSystem Using Deep Neural Network.
18.	820415104021 820415104009 820415104013	Harinarayanan M K Ayyappan D Dinesh.B	National Conference on Advancecomputing and power system	Car Number Plate Detection WithDeep Neural Network For Toll Plaza Management in Automatic Recognition.
19.	820415104078 820415104049 820415104061	Vishali APriya P SanthiniS	National Conference on Advancecomputing and power system	Implementation of Copker Against Cold-Boot Attacks.
20.	820415104055 820415104064 820415104071	Rajarajan P Sivanesan C Sudharshanan p	National Conference on Advancecomputing and power system	Facts of Principle Intrusion Detection On Power Administration.
21.	820415104052 820415104069 820415104057	Rajalakshmi K Subhalakshmi B Ramya M	National Conference on Advance computing and power system	QR Code Detection and Recognition Using Visual Cryptography for ATM's.
22.	820415104072 820415104077 820415104075	Surya S Vikram B Vignesh R	International journal on Multidisciplinary Research	Medical Expert System for Diagnosis of Various Diseases.
23.	820415104302 820415104051 820415104060	Santhana Kumar R Ragulprasath R Sanjay E	National Conference on Advance computing and powersystem	Abnormal Driver Monitoring System Using Visual Features
24.	820415104068 820415104065	Sowrabhi R Sneka A	International journal on Multidisciplinary Research	Person Recognition through AgeProgression
25.	820415104502 820415104067 820415104059	Sneka M Sowmya PSandhiya S	National Conference on Advance computing and power system	Automatic Irrigation System Using IOT
26.	820415104063 820415104054	Seethaladevi M Raja priyanga M	International journal on Multidisciplinary Research	Smart Library System Using DeepLearning Approach
27.	820415104501 820415104066 820415104303	Siyamaladevi G Sowmiya V Suganya R	National Conference on Advance computing and power system	IoT and GSM based Health monitoring System for Railwaypassengers
28.	820415104070 820415104046 820415104076 820415104005	Subhashri jPradeepa RVijipriya V Aiswarya R	International journal on Multidisciplinary Research	Proliferate Business Competitors By Mining Unstructured Datasets

Project Evaluation Form

The presentation should be given in front of coordinators, guide and Review committee

Project Evaluation Form – Review – One (2023-2024)



Department of Computer Science & Engineering
Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni-614 403

Project Evaluation Form
B.E (CSE) – Review Three

Project Title: Satellite Imagery system for locating vegetation interference in power transmission lines.

Project Team

S.No	Register No	Candidate Name
1.	820420104047	Rakshana a.V
2.	820420104066	Subashini.S
3.		
4.		

Guided By

Dr. K. Velmurugan M.E, MBA.
Professor/Head.

Team Members Contribution and Performance

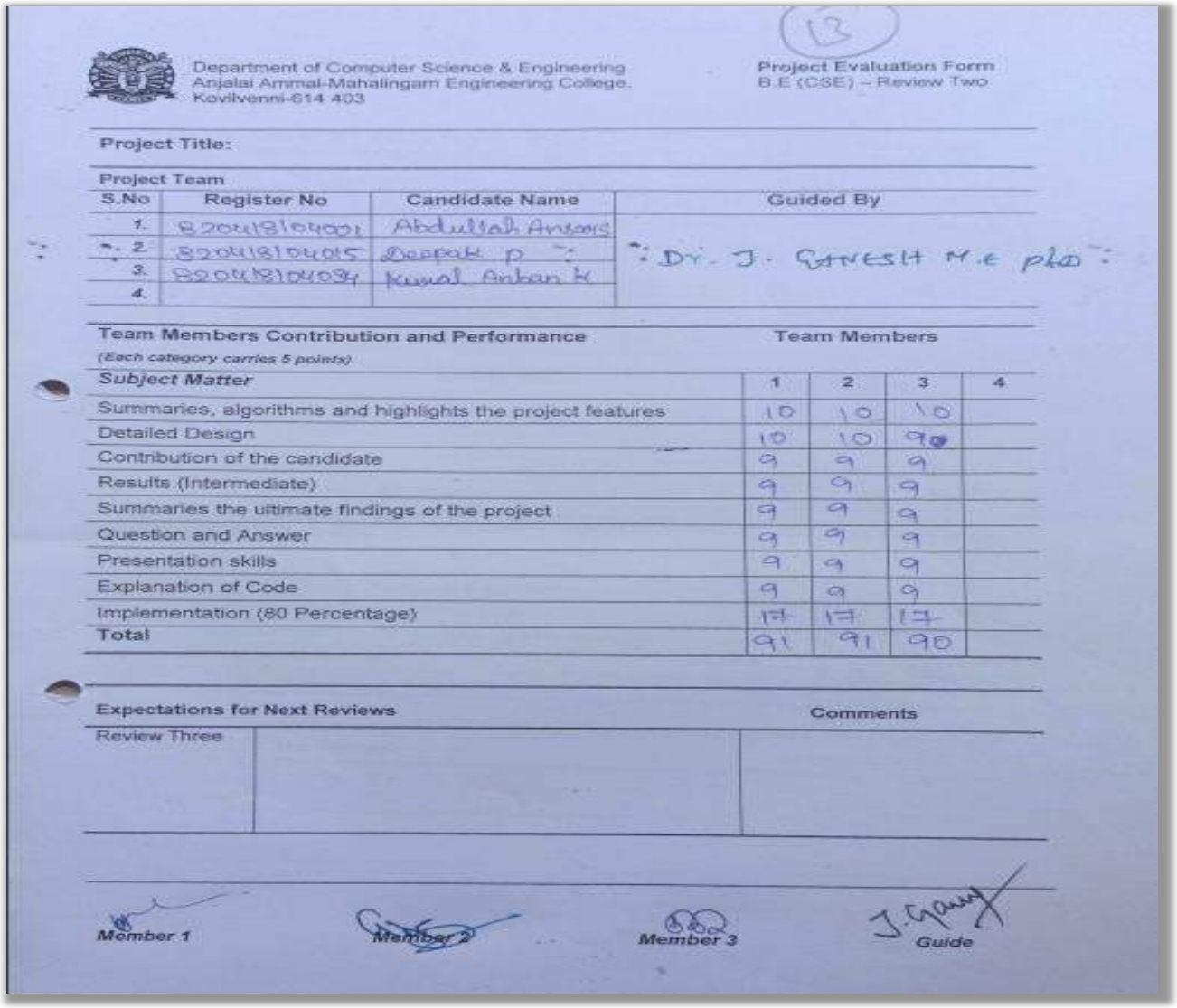
(Each category carries 10 points)

Subject Matter	Team Members 1	2	3	4
1.Abstract	10	10		
2.Specific project goals	10	10		
3.Summaries, algorithms and highlights the project features	10	10		
4.Design & Performance Evaluation	10	10		
5.Results	10	10		
6.Summaries the ultimate findings of the project	10	10		
7.Question and Answer	09	09		
8.Presentation skills	10	09		
9.Explanation of Code	10	10		
10.Implementation (100 Percentage)	10	10		
Total (100 marks)	99	98		

Comments

Member 1 Member 2 Member 3 Guide

Project Evaluation Form – Review – One (2022-2023)



(13)

Department of Computer Science & Engineering
Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni-614 403

Project Evaluation Form
B.E (CSE) – Review Two

Project Title:

Project Team

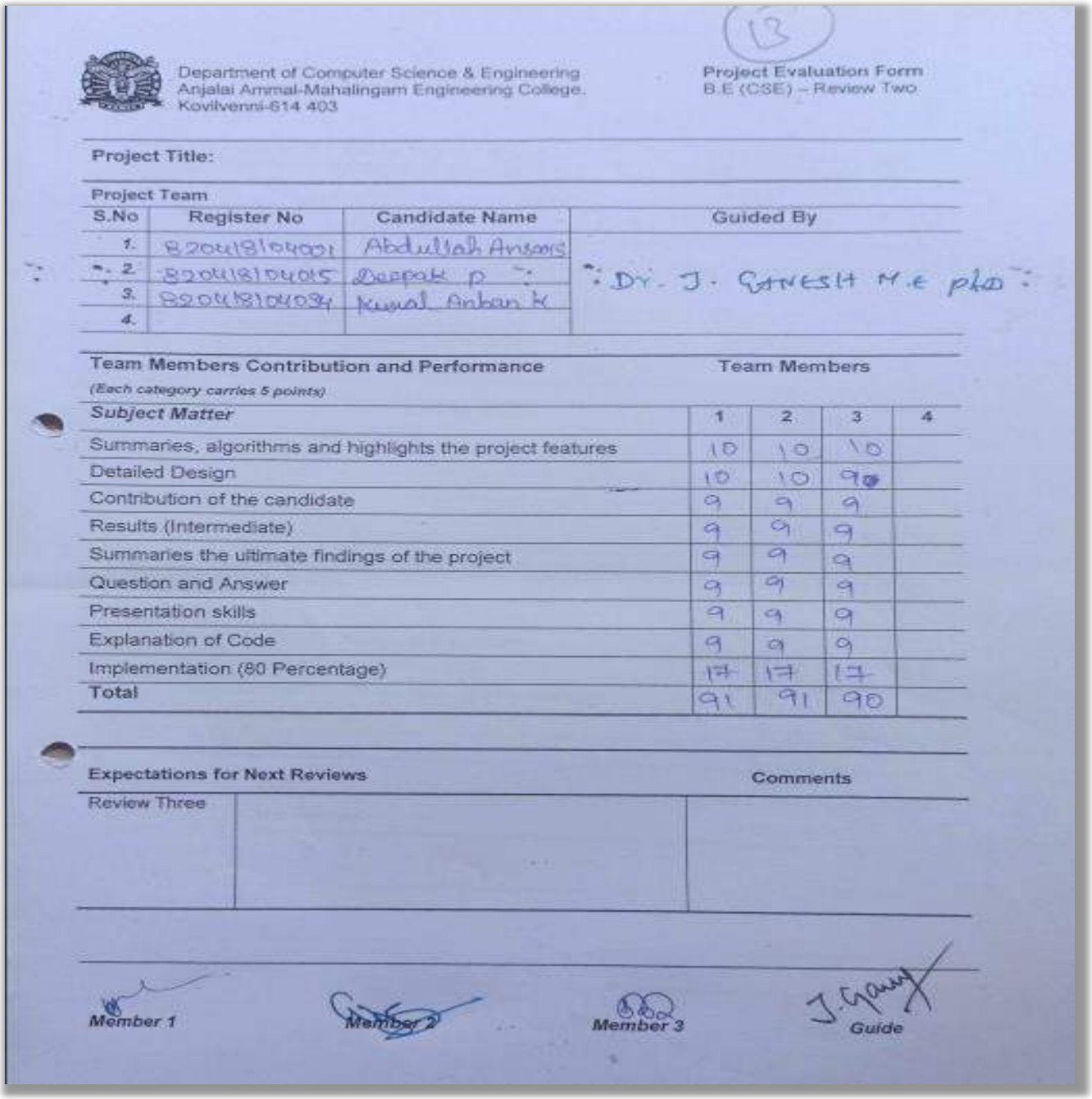
S.No	Register No	Candidate Name	Guided By
1.	820418104021	Abdullah Ansars	: Dr. J. Ganesh M.E Ph.D :
2.	820418104015	Deepak P	
3.	820418104094	Kuwal Anban K	
4.			

Team Members Contribution and Performance (Each category carries 5 points)	Team Members 1	2	3	4
Subject Matter				
Summaries, algorithms and highlights the project features	10	10	10	
Detailed Design	10	10	9	
Contribution of the candidate	9	9	9	
Results (Intermediate)	9	9	9	
Summaries the ultimate findings of the project	9	9	9	
Question and Answer	9	9	9	
Presentation skills	9	9	9	
Explanation of Code	9	9	9	
Implementation (80 Percentage)	17	17	17	
Total	91	91	90	

Expectations for Next Reviews	Comments
Review Three	

Member 1 Member 2 Member 3 J. Ganesh Guide

Project Evaluation Form – Review – Two (2022-2023)



13

Department of Computer Science & Engineering
Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni-614 403

Project Evaluation Form
B.E (CSE) – Review Two

Project Title:

Project Team

S.No	Register No	Candidate Name	Guided By
1.	820418104001	Abdullah Ansars	: Dr. J. Ganesh M.E Ph.D :
2.	820418104015	Deepak P	
3.	820418104034	Kumal Anban K	
4.			

Team Members Contribution and Performance (Each category carries 5 points)	Team Members 1	2	3	4
Subject Matter				
Summaries, algorithms and highlights the project features	10	10	10	
Detailed Design	10	10	9	
Contribution of the candidate	9	9	9	
Results (Intermediate)	9	9	9	
Summaries the ultimate findings of the project	9	9	9	
Question and Answer	9	9	9	
Presentation skills	9	9	9	
Explanation of Code	9	9	9	
Implementation (80 Percentage)	17	17	17	
Total	91	91	90	

Expectations for Next Reviews		Comments
Review Three		

Member 1 Member 2 Member 3 Guide

Project Evaluation Form – Review – Three (2022-2023)

Batch 18

Department of Computer Science & Engineering
Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni-614 403

Project Evaluation Form
B.E (CSE) – Review Three

Project Title: Pocket certificate using blockchain encryption by combined cryptography

Project Team

S.No	Register No	Candidate Name	Guided By
1.	820418104054	G. Rishi Kumar	Dr. K. Velmurugan
2.	820418104066	G. Sriranga	
3.	820418104075	S. Syed Muhammad Ashraf	
4.			

Team Members Contribution and Performance *(Each category carries 5 points)*	Team Members			
Subject Matter	1	2	3	4
Abstract	9	10	9	
Specific project goals	9	9	9	
Summaries, algorithms and highlights the project features	9	9	9	
Design & Performance Evaluation	9	9	9	
Results	9	9	9	
Summaries the ultimate findings of the project	9	9	9	
Question and Answer	9	9	9	
Presentation skills	9	9	9	
Explanation of Code	8	9	8	
Implementation (80 Percentage)	8	9	8	
Total	88	91	88	

Comments

Member 1 Member 2 Member 3 Guide

Project Evaluation Form – Review – One

Department of Computer Science & Engineering
Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni-614 403

Project Evaluation Form
B.E (CSE) – Review One

Project Title: Implementing Advanced Gaming AI using Reinforcement Learning

Project Team

S.No	Register No	Candidate Name	Guided By
1.	8804171040069	R.S. Sriram	Dr. K. Velmurugan.
2.	8804171040014	S. Venkatesh	
3.	8804171040077	S. Yukesh Raaj	
4.			

Team Members Contribution and Performance (Each category carries 10 points)	Team Members 1	2	3	4
Subject Matter				
1.Understanding background and topic	10	10	10	
2.Specifies Project goals	10	10	10	
3.Knowledge about the existing system	10	10	10	
4.Summaries, algorithms and highlights the project features	10	10	10	
5.Project Planning	10	10	10	
6.Technical Design	10	10	10	
7.Summaries the ultimate findings of the project	5	8	7	
8.Question and Answer &Presentation skills	5	7	8	
9.Explanation of Code & Implementation (30 Percentage)	7	7	9	
10. Documents(SRS and SDD)	7	7	10.	
Total (100 marks)	84	89	95	

Expectations for Next Reviews	Comments
Review TWO	Detailed design.
Review THREE	

Member 4 Member 2 Member 3 Guide

Project Evaluation Form – Review – Two

Department of Computer Science & Engineering
Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni-614 403

Project Evaluation Form
B.E (CSE) – Review Two

Project Title: Online Voting System using non-proof Interactive Zero knowledge based on Block-Chain authentication

Project Team

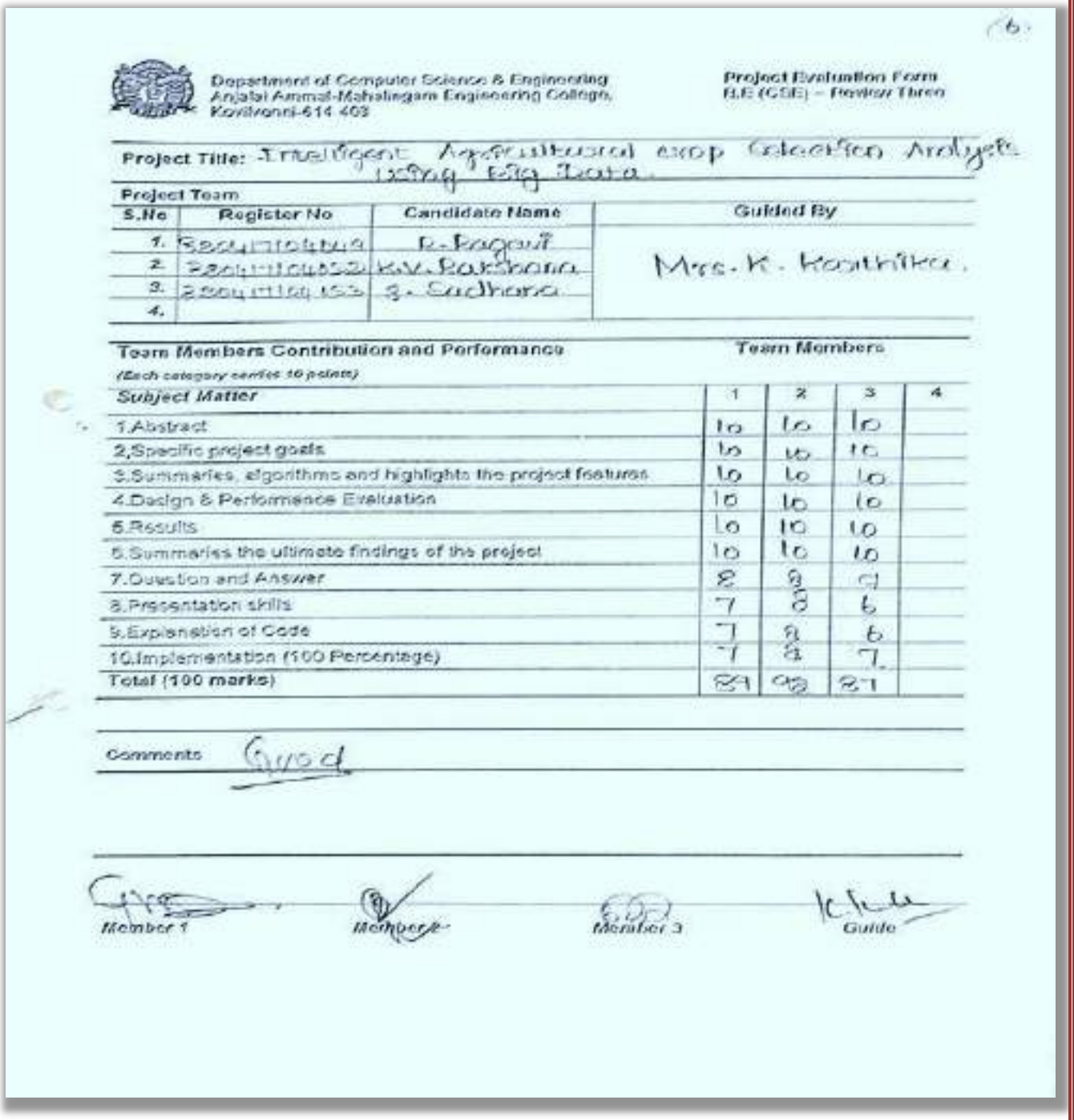
S.No	Register No	Candidate Name	Guided By
1.	8804T1104057	S.Sakthi kumar	Mr. P. Dinesh
2.	8804T1104067	S.Sridhar	
3.	8804T1104070	M.S.Subash baki	
4.	8804T1104075	M.Venkateshwaran	

Team Members Contribution and Performance *(Each category carries 10 points)*	Team Members 1	2	3	4
1.Summaries, algorithms and highlights the project features	10	10	10	10
2.Detailed Design	10	10	10	10
3.Contribution of the candidate	10	10	10	10
4.Results (Intermediate)	10	10	10	10
5.Summaries the ultimate findings of the project	10	10	10	10
6.Question and Answer	10	10	10	10
7.Presentation skills	8	8	6	5
8.Explanation of Code	9	8	6	5
9.Implementation (80 Percentage)	9	8	7	5
10. Thesis soft copy (Corrections may be included)	10	8	7	6
Total (100 marks)	96	92	86	81

Expectations for Next Reviews	Comments
Review Three: All the test cases must be completed before the documentation.	

Member 1 Member 2 Member 3 Guide

Project Evaluation Form – Review - Three



Department of Computer Science & Engineering
Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni-614 403

Project Evaluation Form
B.E (CSE) – Review Three

Project Title: Intelligent Agricultural crop selection Analysis using Big Data.

Project Team

S.No	Register No	Candidate Name	Guided By
1.	2204110404	R. Ragavi	Mrs. K. Karthika.
2.	2204110402	K.V. Pakhana	
3.	2204110403	S. Sudhana	
4.			

Team Members Contribution and Performance (Each category carries 10 points)	Team Members 1	2	3	4
Subject Matter				
1.Abstract	10	10	10	
2.Specific project goals	10	10	10	
3.Summaries, algorithms and highlights the project features	10	10	10	
4.Design & Performance Evaluation	10	10	10	
5.Results	10	10	10	
6.Summaries the ultimate findings of the project	10	10	10	
7.Question and Answer	8	9	9	
8.Presentation skills	7	8	6	
9.Explanation of Code	7	9	6	
10.Implementation (100 Percentage)	7	9	7	
Total (100 marks)	89	95	87	

Comments: Good

Member 1 | Member 2 | Member 3 | Guide

Final Project Evaluation

The viva-voce examination shall carry 50 marks. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination. The marks distribution is shown in the table.

End semester Examinations				
Project Report Submission (30)		**Viva-Voce (50)**		
Internal (15)	External (15)	Internal (15)	External (15)	Guide (20)

Report Evaluation

The project report shall be submitted as per the approved guidelines as given by Director, Academic Courses. CAI Anna University. Same mark shall be awarded to every student with in the project group for the project report

- The final draft copy of the report (in the suggested format) should be submitted immediately after the final presentation and review to their respective guides. Guides will review the report according to the given format, any discrepancies in the report is brought to the notice of the students
- The students must incorporate the given suggestions in their final copy of the report. The final approved report by the guide must be submitted as per the format prescribed by the Anna University, Chennai.
- The total weightage for this project report is 30 Marks out of 100 Marks.
- Report by the guide must be submitted as per the format prescribed by the Anna University, Chennai. The total weightage for this project report is 30 Marks out of 100 Marks.
- Each project is evaluated by an external expert and best project was identified. The projects are evaluated and awarded marks for maximum10

Niral Thiruvizha Academic Year–2023-2024

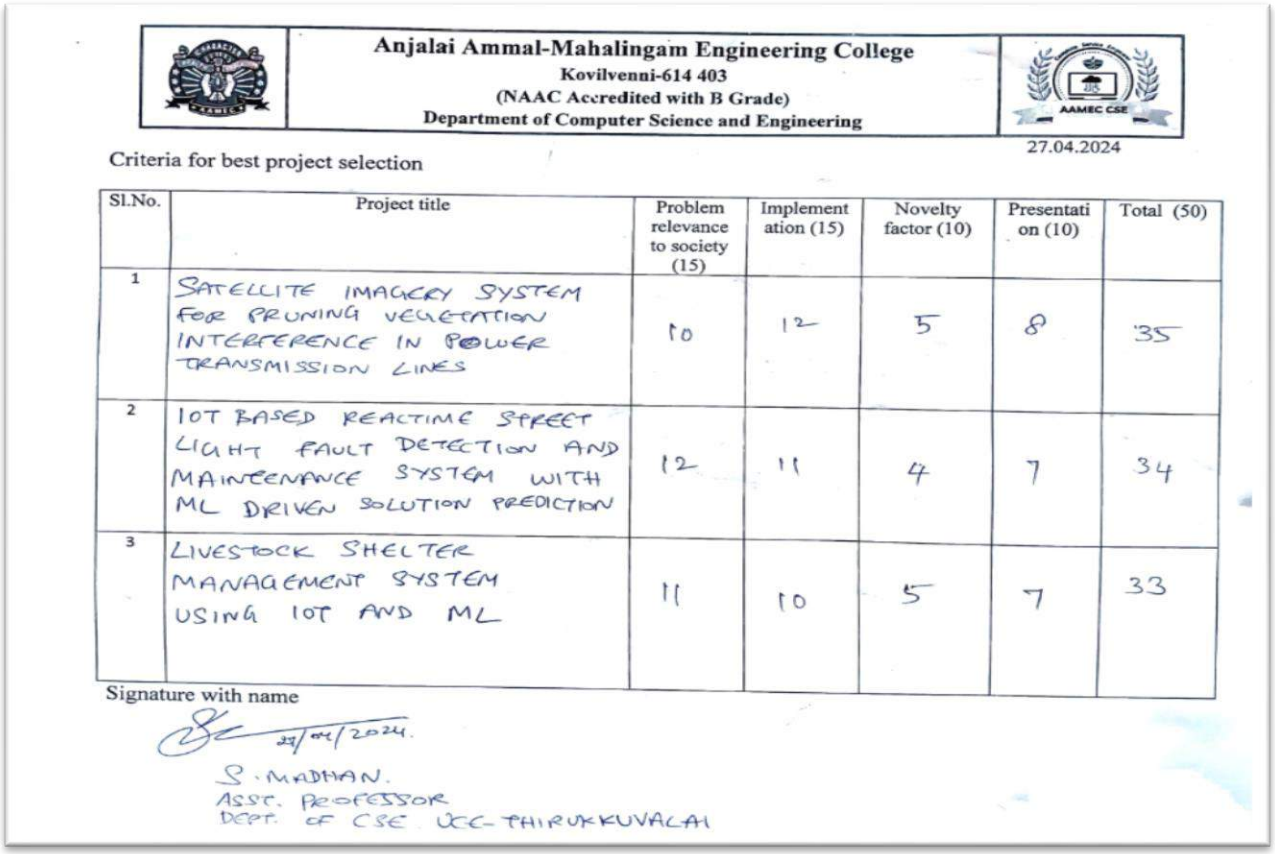
Niral Thiruvizha 2023 is an annual Event for college students organized by state government at State level through 7 regions and 38 Districts. The objective of this event is to trigger an innovation mindset among the student community which in turn develops the skills of our students across various sectors. The Naan Mudhalvan Grand Innovation and Skilling Challenge, Niral Thiruvizha -Project Hackathon, was inaugurated by our honorable Chief Minister. A total of 8,486 ideas were submitted across Tamil Nadu, with 1,000 teams selected for Funding of Rs.10,000 each. We take pride in having 2 teams from our department are among the selected ones.

Table: Niral Thiruvizha Academic Year–2023-2024

Sl No	Name	Reg No	Title
1	820420104059 820420104056 820420104055 820420104306	S.SERAN S.SANJAY R.SAKTHIYASEELAN R.SIVASANKAR	Analytic tool for Healthcare Data of Patients in Hospitals
2	820420104045 820420104057 820420104076	R.RAGUL KULOTHUNGAN S.SARUKESH K.VARUN	Awareness about the agriculture needs through interactive web application for farmers

Table: Best Project Academic Year–2023-24

S.Madhan AP/CSE Thirukuvallai Campus has visited our college 27.04.2024 and evaluated the projects done by 2024 batch



Anjalai Ammal-Mahalingam Engineering College
Kovilvenni-614 403
(NAAC Accredited with B Grade)
Department of Computer Science and Engineering

27.04.2024

Criteria for best project selection

Sl.No.	Project title	Problem relevance to society (15)	Implement ation (15)	Novelty factor (10)	Presentati on (10)	Total (50)
1	SATELLITE IMAGERY SYSTEM FOR PRUNING VEGETATION INTERFERENCE IN POWER TRANSMISSION LINES	10	12	5	8	35
2	IOT BASED REACTIME STREET LIGHT FAULT DETECTION AND MAINTENANCE SYSTEM WITH ML DRIVEN SOLUTION PREDICTION	12	11	4	7	34
3	LIVESTOCK SHELTER MANAGEMENT SYSTEM USING IOT AND ML	11	10	5	7	33

Signature with name

27/04/2024.

S.MADHAN.
ASST. PROFESSOR
DEPT. OF CSE ACC-THIRUKKUVALAI

Table: Best Project Academic Year–2022-23

Sl No	Name	Reg No	Title	Guide Name
1	Nivedha K Vinoth Kumar M Veerenthiran S	820419104047 820419104085 820419104080	Cryptocurrency Price Predictor Using Machine Learning, Performance Tracker And Data Visualization	Dr .K.Velmurugan
2	Alex S Nandhini .V	820419104006 820419104039	A Novel Improved Quality of Service Framework for Multimedia Streaming over 6G Network using Beat Architecture	Dr G.Nanthakumar
3	J.Aburva S.Ashifa Sherene E.Deebu Rubiya	820419104003 820419104009 820419104013	Victual Analysis and Sustenance Support UsingDeep Learning (Mask R- CNN)	Mrs.G.Kalaiselvi

Table: Best Project Academic Year–2020-21

Sl. No.	Batch No	Title of the project	Student Name	Project Guide
1	B8	Implementing Advanced Gaming AI Using Reinforcement Learning	R.S.Sriram S.Venkatesh S.YukeshRaaj	Dr.K.Velmurugan
2	B9	Driver Drowsiness detection with individual differences using Eye aspect ratio	S.Akash S.Mukesh K.H.Mohamed HarishHameed	Mr.P.ManikandaPrabu

Table: Best Project Academic Year–2019-20

S No.	Batch No	Title of the project	Student name	Guide
1	B9	Simulation of hand off techniques using Named Data Networking (NDN) in5G wireless technology.	V.Srinivasan S.Ramar S.Jaisanthosh	Dr.G.NanthaKumar.
2	B16	Mobile Application and cloud technology based Uzhavarsandhai(MAACT- BUS)	M.Prabhakaran B.Ramachandran S.SuriyaP.Manibharathi	Dr.K.Velmurugan

Table: Best Project Academic Year CAY–2018-19

S. No	Batch No	Title of the project	Student Name	Guide

1	B10	PL-NET: An enhanced person re- identification using CNNwith zero shot Leering problem	Gayathri R Pooja R	Mrs.K.Karthika
2	B24	Person Recognition through Age Progression	Sowrabhi R SnekaA	Mrs.S.FarjanaFarvin

Impact analysis of Projects

- Adapt to industry needs.
- New innovative ideas are evolved.
- Skills and capabilities of students improved.
- Knowledge on various aspects of project management were developed. Confidence level of the students was improved.
- Improved team work skill
- Implementation and deployment of the project for social benefits. Document preparation and presentation.

2.2.4 Initiative related to industry interaction (15)

Expert Visited our department and interacted with our students

Sl.no.	Date	Name	Designation	Institute/organization details
1.	11.04.2023	Mr.Varatharajan	ERCIM Fellow	Norwegen University of Squera and Technology
2.	29.10.2022	Mr.Arunkumar,	Scientist,Drdo	Ministry of Defence, DRDO, Chennai
3.	27.08.2022	Mr.S.Thiayagarajan	,Lead,Data Analyst,	Anz Bank ,Australia
4.	28.01.2017	Dr.KrishnaKumar	Senior Technical officer	Ministry of Defence, DRDO, Chennai.
5.	08.07.2017	Mr.K.S.Sundar	Associate Vice President	Global Education center, Infosys, Mysore.
6.	29.05.2017	Dr.Kamala Krithivasan	Professor(CSE)	IIT Madras(Retired)
7.	19.07.2017	Dr.V.Masilamani	Assistant Professor(CSE)	Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram.
8.	21.11.2017	Dr.Yogesh	Professor	Anna university,Chennai
9.	20.11.2017	Dr.K.Kulothungan	Assistant prof(Sr.Gr)	Dept of Information Science and Technology,Ann University, Chennai.
10.	16.07.2016	Dr.Ramadoss	Professor	NIT-Trichy.
11.	09.04.2016	Dr.Aghila	Professor&HOD(CSE)	NIT-Pudhucherry
12.	20.02.2016	Dr.S.MarysairaBhanu	Associate Professor(CSE)	PEC,Pondicherry
13.	02.06.2017	Dr.S.Lakshmana Pandian	Associate Professor(CSE)	PEC,Pondicherry
14.	23.07.2017	Dr.N.Shivakumar	Assistant prof(CSE)	PEC,Pondicherry
15.	01.06.2017	Dr.LathaParthiban	Assistant prof(CSE)	Pondicherry University CC, Lawspet
16.	03.02.2018	Dr.K.Vivekanandan	Dean and Professor	PEC,Pondicherry
17.	01.10.2016	Dr.Zayaraz	Professor	PEC,Pondicherry
18.	20.11.2017	Dr.Hemalatha	Associate Professor	PSG Engineering college, Coimbatore.
19.	31.08.2017	Mr.Jeyanthan Mr.Hari	Branch Head Develepor	Macro Zenith-Chennai

20.	01.06.2017	Dr.S.Karthikeyan	Professor	Dept of Mathematics, Velammal College of Engineering and Technology, Madurai.
21.	03.02.2018	Mr.Ragupathi	Professor	Galaxy force foundation, Thanjavur.
22.	24.01.2018	Mr.Joseph	Director	ZOHO Techologies,Chennai.
23.	26.09.2017 & 27.09.2017	Mr.Shivkumar	Technical Analyst	Robokart,Mumbai.
24.	01.09.2017	Mr.SureshKumar	Chief Technical Officer	Xerago,The insitute of Engineers, Chennai
25.	18.01.2017	Mr.S.Kalidas	Technical Analyst	Robokart, Mumbai
26.	23.01.2017	Mr.B.Vishnu Vardhan Reddy	Lead Engineer -1	Bally Technologies Pvt,Ltd, Bangalore.
27.	19.08.2016	Mr.Vidhyadhar ShasikanthBendre	Director of Technology	System Product Management, Scientific Games Corporation,Bangalore.
28.	06.08.2016	Mr.K.N.Visveswaran	Chief Mentor	Hexaware Technologies Ltd,Chennai.
29.	02.08.2016	Mr.B.UdayaSankar	Regional Lead	SSC,NASSCOM,Chennai
30.	09.08.2015 & 10.08.2015	Mr.Sivasankar Babu & Mr.William Thomas	Trainers	Techno Bankers,Chennai.

CHIEF GUEST: Mr. S. Thiagarajan, Data Expert, ANZ Bank Australia


Kollvenni, Tamil Nadu, India
Kollvenni, Tamil Nadu, India
Kollvenni, Tamil Nadu, India





Guest Lecture on Medical Image Processing by Dr.N.Varatharajan, Norwegen University of Squera and Technology, Norway



Dr. Krishna Kumar, Scientist DRDO interaction with students during Project Expo

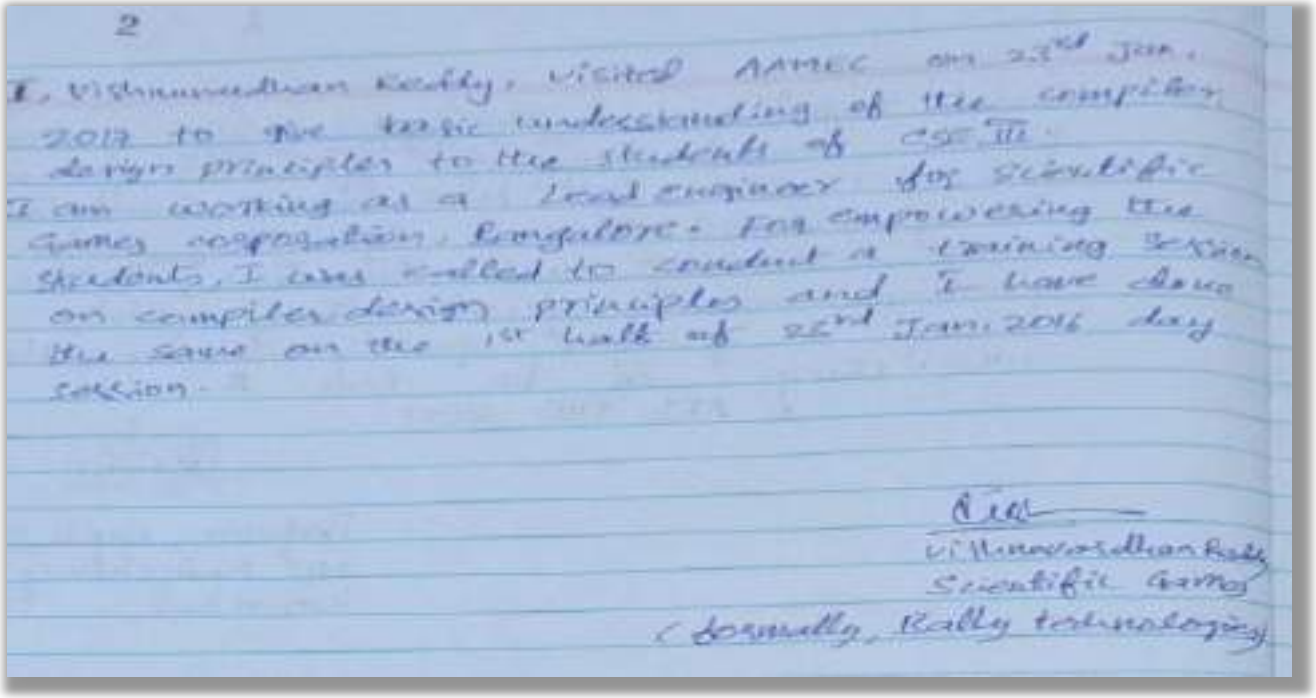


Dr. Kamala Krithivasan, Professor (Rtd.),IIT Madras, delivering session during FDP on Theory of Computation



Sukanya Sivakumar, CEO & Founder of Write IT Solutions ,Bangalore delivered keynote address in Kshatriyah (National Level Symposium)

Feedback From Experts Visited



2

I, Vishnuvardhan Reddy, visited AAMEC on 23rd Jan, 2017 to the basic understanding of the compilers design principles to the students of CSE III. I am working as a Lead engineer for Scientific Games corporation, Bangalore. For empowering the students, I was called to conduct a training session on compiler design principles and I have done the same on the 1st half of 22nd Jan, 2016 day session.

Vishnuvardhan Reddy
Scientific Games
(formally, Rally technologies)

Dr. S. Krishnakumar, DRDO

Came here to deliver Special Keynote address to students. Enjoyed the hospitality and Enthusiastic response from Students. Very Creative Students and Co-operative Staff members.

All the Best. Keep the tempo Consistently

Prof. Kamala Krithivasan, Retd from CSE Dept., IIT Madras

Came here for the viva-voce exam and guest lecture for the FDP program on TOC. Enjoyed the hospitality and the enthusiastic participation of the faculty of CSE Dept and participating Candidates.

Kamala Krithivasan

Anjalai Ammal Mahalingam Engineering College, Kovilvenni

DRDO/CVRDE SPONSORED SPECIAL LECTURE PROGRAM AS A PART OF AZADI KA AMRIT MHOTSAV Held on March 28, 2022.

Chief Guests

Shri. Er.Arunsundar Scientist 'E' Deputy Director, CVRDE, DRDO, AVADI, CHENNAI.
Topic: "Inertial Sensor and Its Application"

Dr.KrishnaKumar, Senior Technical Officer, DRDO, CVRDE, Chennai.
Topic: "Role of DRDO in Nation Building".





Dr. Krishna Kumar, Scientist DRDO interaction with students

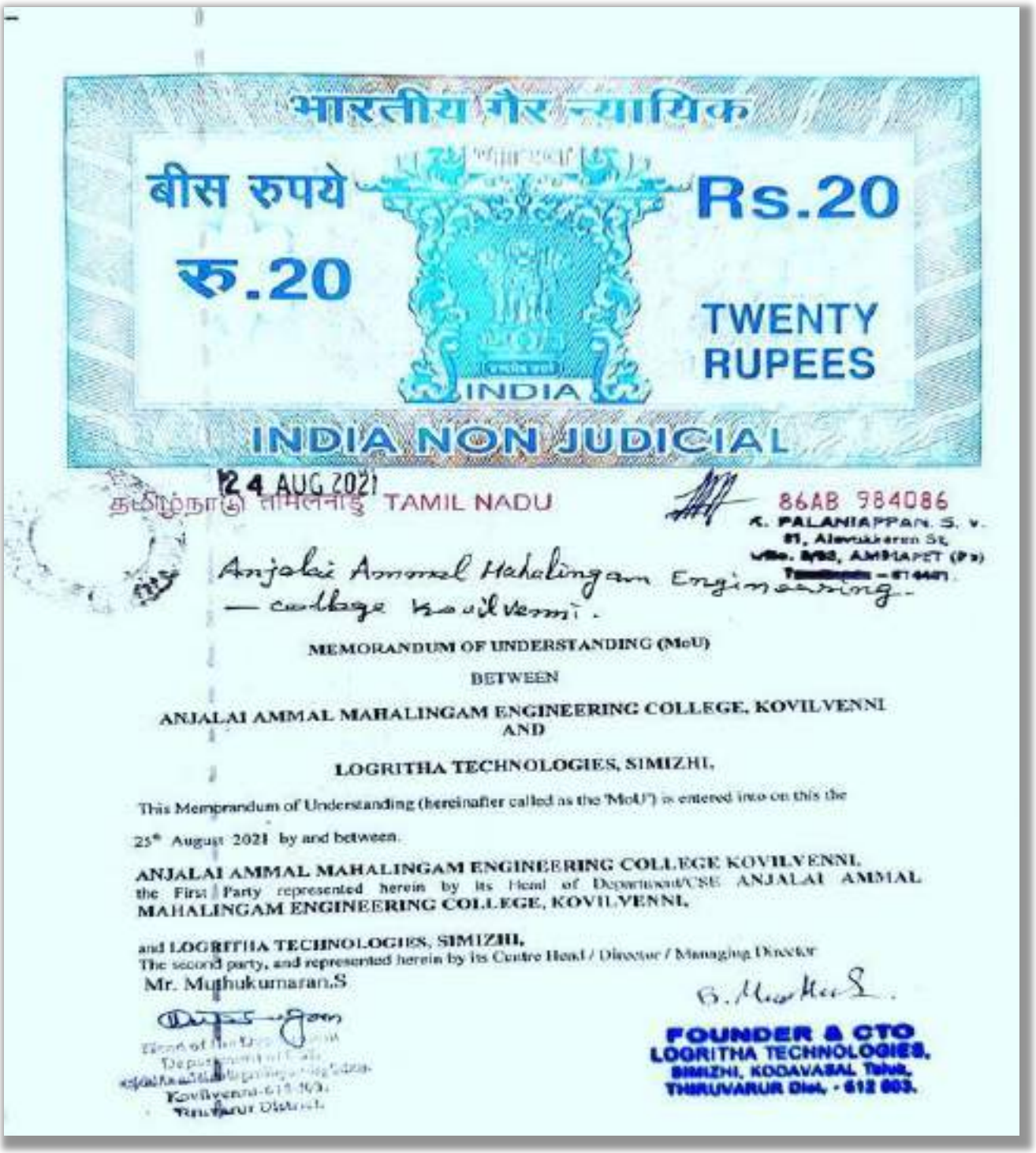
To strengthen interaction with industries and to keep our students updated with the latest trends in Computerscience and Engineering.

The Department has entered into an MOU with the following companies. These companies will coordinatein organizing the workshops, seminars, internships and academic projects.

Table: MoU with Companies

Sl. No.	Company Name	Date
1	Logritha Technologies ,Thiruvarur	25.08.2021
2	Woua Labs Pvt. Ltd., Thanjavur	25.08.2021
3.	PiServe Technologies Pvt. Ltd. ,Kochi	26.02.2020

MOU - LOGRITHA Technologies



भारतीय गैर न्यायिक

बीस रुपये Rs.20

रु.20 TWENTY RUPEES

INDIA

INDIA NON JUDICIAL

24 AUG 2021 தமிழ்நாடு TAMIL NADU 86AB 984086

K. PALANIAPPAN, S. V.
81, Alamukheran St,
Vill. 8/83, AMMAPET (P.O)
Tel. - 671445

Anjalai Ammal Mahalingam Engineering College Kovilvenni.

MEMORANDUM OF UNDERSTANDING (MoU)

BETWEEN

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI
AND

LOGRITHA TECHNOLOGIES, SIMIZHI,

This Memprandum of Understanding (hereinafter called as the 'MoU') is entered into on this the 25th August 2021 by and between.

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE KOVILVENNI, the First Party represented herein by its Head of Department/CSE ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI,

and LOGRITHA TECHNOLOGIES, SIMIZHI,
The second party, and represented herein by its Centre Head / Director / Managing Director
Mr. Muthukumaran.S

Head of the Department
Department of CSE
Anjalai Ammal Mahalingam Engg College
Kovilvenni-614 404.
Thiruvarur District.

FOUNDER & CTO
LOGRITHA TECHNOLOGIES,
SIMIZHI, KODAVASAL Taluk,
THIRUVARUR Dist. - 612 603.

WHEREAS:

A) First Party is a Higher Educational Institution named: **ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI**

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill BasedTraining, Education, Placement, Industrial Visit, Expert Lecture.

D) **LOGRITHA TECHNOLOGIES, SIMIZHI,** the Second Party is engaged in **Training, Internship and employment opputunities.**

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERE TO AGREE AS FOLLOWS:

CLAUSE 1 **CO-OPERATION**

1.1 Both Parties are united by common interests and objectives, and they shall establish co-operation.
1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities.
1.3 The parties shall co-operate with each other and shall as promptly as is responsibly practical, relevant agreement.

CLAUSE 2 **SCOPE OF THE MoU**

2.1 Industrial Training & Visits: Industry and Institution interaction will provide an insight into the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group companies and also involve in Industrial Training Programs for the First Party. This will provide confidence & smooth transition for students work. Also the Second party may register on the AICTE Internship Portal for the benefit of students.

2.2 Guest Lectures: Second Party to extend the necessary support to deliver guest lecturers to the students of the First Party on the technology trends and in house requirements.

2.3 Placement of trained students: second party will actively engage to help the delivery of the training and placement of the students of the first party on the technology trends and in house requirements.

2.4 There is no financial commitment on the part of the **ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE,** the first party to take up any program mention in MoU. If there is any financial consideration, it will be dealt separately.

Head of the Department
Department of CSE
Anjalai Ammal Mahalingam Engineering College
Kovilvenni 614 403.
Thiruvarur District.

S. Manikandan.
FOUNDER & CTO
LOGRITHA TECHNOLOGIES,
SIMIZHI, KODAVASAL Taluk,
THIRUVARUR Dist. - 612 603.



2.5 Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required.

CLAUSE 3 VALIDITY

3.1 This Agreement will be valid until it is expressly terminated by either Party on mutually agreed terms.

CLAUSE 4 RELATIONSHIP BETWEEN THE PARTIES

5.1 It is expressly agreed that First Party and Second Party are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership.

FirstParty

HoD/CSE

SecondParty

Centre Head

FOUNDER & CTO
LOGRITHA TECHNOLOGIES,
SIMIZHI, KODAVASAL Taluk,
THIRUVARUR Dist. - 612 603.

Internship from Logritha Technologies



LOGRITHA TECHNOLOGIES
3/35, KEEZHANANACHERY, SIMIZHI,
THIRUVARUR DIST – 612 603
+91 94861 29920
queries@logritha.com
https://logritha.com

LOGRITHA

INTERN CONFIRMATION LETTER

To:
The HOD,
Department of Computer Science and Engineering,
Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni, Thiruvarur.

Respected Sir,

This is to inform the selection of following students of Second Year COMPUTER SCIENCE AND ENGINEERING, ANJALAI AMMAL-MAHALINGAM ENGINEERING COLLEGE for Technical Internship on Web Development at Our Organization Logritha Technologies. In Logritha Technologies we will give all technical support and guidance for successfully completion of the Internship during the period March 2022 to May 2022. We hereby confirm that they have joined the duties as per the date from 28-03-2022. The List of Selected Candidates is attached herewith.

With Regards

Muthukumaran Singaravelu,
Founder & CTO,
Logritha Technologies.



SELECTED STUDENTS LIST :

1. VINOTH KUMAR (80)
2. VINOTH KUMAR (81)
3. ARAVINDH
4. VIGNESH
5. ABINESH
6. HARSH
7. PRAVEEN
8. GANESH
9. JAGADESH
10. BALA
11. RAKSHANAA
12. SUBASHINI
13. THIRUMULLAI
14. VARSHA
15. MONISHA
16. HASTHURI
17. DIVYAPRABHA
18. DEVADARSHINI
19. SHWETHA

With Regards

S. Muthukumaran Singaravelu,
Founder & CTO,
Logritha Technologies.

MOU - WOUA Software Labs



भारतीय गैर न्यायिक

बीस रुपये Rs.20

₹.20 TWENTY RUPEES

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24 AUG 2021 TAMIL NADU 86AB 984083

Anjalai Ammal Mahalingam Engineering College Kovilvenni

MEMORANDUM OF UNDERSTANDING (MoU)

BETWEEN

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI
AND

WOUA SOFTWARELABS LLP, THANJAVUR

This Memorandum of Understanding (hereinafter called as the 'MoU') is entered into on this the 25th August 2021 by and between

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE KOVILVENNI, the First Party represented herein by its Head of Department/CSE ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI.

and WOUA SOFTWARELABS LLP, THANJAVUR, The second party, and represented herein by its Centre Head / Director / Managing Director Mr. Dinesh Kumar.M

WHEREAS:

A) First Party is a Higher Educational Institution named: **ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI**

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill BasedTraining, Education, Placement, Industrial Visit, Expert Lecture.

D) **WOUA SOFTWARE LABSLLP, THANJAVUR, ,** the Second Party is engaged in **Training, Internship and employment opputunities**.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERE TO AGREE AS FOLLOWS:

CLAUSE 1 **CO-OPERATION**

1.1 Both Parties are united by common interests and objectives, and they shall establish co-operation.
1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities.
1.3 The parties shall co-operate with each other and shall as promptly as is responsibly practical, relevant agreement.

CLAUSE 2 **SCOPE OF THE MoU**

2.1 Industrial Training & Visits: Industry and Institution interaction will provide an insight into the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group companies and also involve in Industrial Training Programs for the First Party. This will provide confidence & smooth transition for students work. Also the Second party may register on the AICTE Internship Portal for the benefit of students.

2.2 Guest Lectures: Second Party to extend the necessary support to deliver guest lecturers to the students of the First Party on the technology trends and in house requirements.

2.3 Placement of trained students: second party will actively engage to help the delivery of the training and placement of the students of the first party on the technology trends and in house requirements.

2.4 There is no financial commitment on the part of the **ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE,** the first party to take up any program mention in MoU. If there is any financial consideration, it will be dealt separately.

WOUA SOFTWARE LABS LLP THANJAVUR 613 006.



2.3 Both Parties to obtain all internal approvals, consents, permissions, and licenses if/whenever (where required.

CLAUSE 3 VALIDITY

3.1 This Agreement will be valid until it is expressly terminated by either Party on mutually agreed terms.

CLAUSE 4 RELATIONSHIP BETWEEN THE PARTIES

4.1 It is expressly agreed that First Party and Second Party are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership.

FirstParty

HoD/CSE

SecondParty

Centre Head

Internship from WOUA Software Labs



25/06/2022, 09:55 Gmail - Woua Software labs LPP

Gmail 85 VinothKumar_M_Sec_B <vinothknr1@gmail.com>

Woua Software labs LPP
1 message

hr@woualabs.com <hr@woualabs.com> 16 August 2021 at 22:03
To: vinothknr1@gmail.com

Dear Vinoth kumar,
We would like to inform you that your application, performance in the interview was satisfactory for the management. This letter is considered you as an intern in Woua Software Labs LLP. We hope this internship program gives you the knowledge and a career path to your future. We require your hundred percent attention and time consideration on your training program.

NOTE: documents to be submitted with self-attestation

KINDLY BRING THE DOCUMENTS MENTIONED BELOW
- Resume
- 10th & 12th mark sheet (Photocopy)
- College id card (Photocopy)
- Course Completion Certificate (Photocopy)
- Aadhaar(Photocopy)
- 2 passport size photo

Thanks & Regards,
HR Executive,
Fathima Farveen.s.

MOU - PiServe Technologies Pvt. Ltd. , Kochi



भारतीय गैर न्यायिक

बीस रुपये Rs.20

रु.20 TWENTY RUPEES

INDIA

INDIA NON JUDICIAL

TAMIL NADU 67AB 272543

K. KANIKA

STAMP VENDOR

LICENCE No: 14861/04,

No. 2, MADLEY ROAD,

T.NAGAR, CHENNAI-17

26 SEP 2019

Anjalai Ammal Mahalingam Engineering College, Kovilvenni

MEMORANDUM OF UNDERSTANDING (MoU)

BETWEEN

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI

AND

PiServe Technologies Pvt. Ltd. Kochi

This Memorandum of Understanding (hereinafter called as the 'MoU') is entered into on this the 26th February 2020 by and between.

ANJALAI AMMALMAHALINGAM ENGINEERING COLLEGE , KOVILVENNI the First Party represented herein by its Head of Department/CSEANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI,

and**PiServe Technologies Pvt. Ltd. Kochi**

Thesecond party, and represented herein by its Centre Head / Director / Managing Director

Mr.Mohan Baby Kurian

Head of the Department
Department of Computer Science and Engineering
Anjalai Ammal - Mahalingam Engineering College
Kovilvenni - 614 403 Thiruvarur Dt.

For PiServe Technologies Private Limited

Managing Director

WHEREAS:

A) First Party is a Higher Educational Institution named **ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI**

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill BasedTraining, Education, Placement, Industrial Visit, Expert Lecture.

D)**PiServe Technologies Pvt. Ltd. Kochi,** the Second Party is engaged in **Training, Internship and employment opportunities.**

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

CLAUSE 1 CO-OPERATION

1.1 Both Parties are united by common interests and objectives, and they shall establish co-operation.
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1.3 The parties shall co-operate with each other and shall as promptly as is responsibly practical, relevant agreement.

CLAUSE 2 SCOPE OF THE MoU

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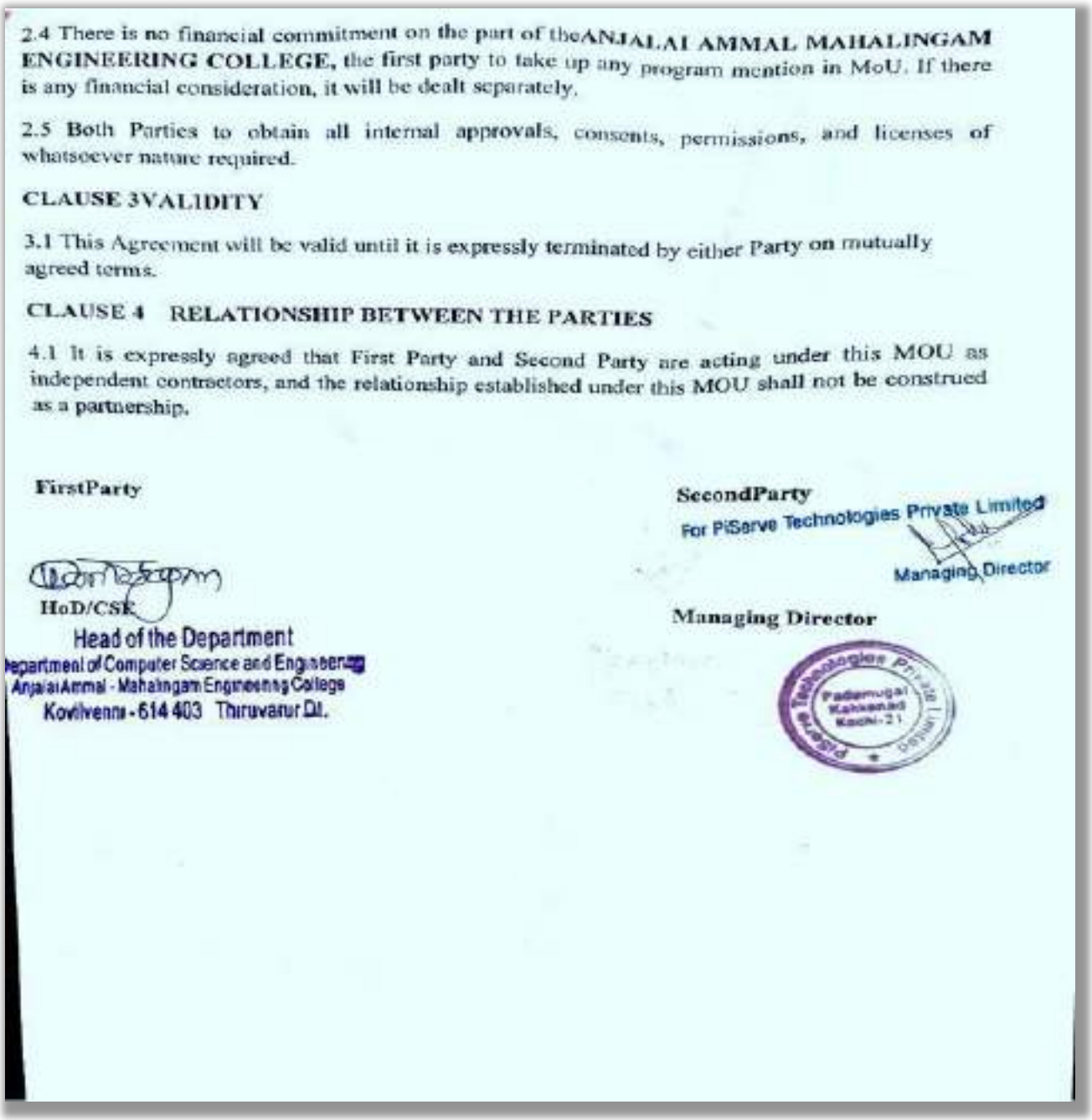
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For PiServe Technologies Private Limited

Managing Director

Head of the Department
Department of Computer Science and Engineering
Anjalai Ammal - Mahalingam Engineering College
Kovilvenni - 614 403 Thiruvarur Dt.



2.4 There is no financial commitment on the part of theANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, the first party to take up any program mention in MoU. If there is any financial consideration, it will be dealt separately.

2.5 Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required.

CLAUSE 3VALIDITY

3.1 This Agreement will be valid until it is expressly terminated by either Party on mutually agreed terms.

CLAUSE 4 RELATIONSHIP BETWEEN THE PARTIES

4.1 It is expressly agreed that First Party and Second Party are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership.

FirstParty

HoD/CSE

Head of the Department
Department of Computer Science and Engineering
Anjalai Ammal - Mahalingam Engineering College
Kovilvenni - 614 403 Thiruvarur Dt.

SecondParty

For PiServe Technologies Private Limited

Managing Director

Managing Director

PiServe Technologies Private Limited Padamugal Kancheepuram-21

M/s SYSARC INFOMATICS, Chennai, Extension Campus has been established in our college. The Company recruit candidates from final year and they will be involved in software development workwithin the campus.





M/s SYSARC INFOMATICS, Chennai, Extension Campus

Industrial visit to write it solutions, Bangalore on 27 September 2020





Industrial visit to Write IT solutions, Bangalore

2.2.3. Initiative related to industry internship/summer training (15)

Industry internship training

Students are exposed to real time practical experience of the concepts studied in the class rooms and realize the practical importance of the subjects.

Industry internship training creates more interest in the subjects.
Students are inspired to do hard work and get placed in such industries.
Students were exposed tothe industry standards and workplace culture.

Faculty Development Programme Organized by the Department

Year	Faculty Development Programme Name	Date	Duration	No of Participants
2023-2024	Two days Faculty Development Program on Application of Generative AI	28.11.2023-29.11.2023	2 Days	12
2022-2023	Three days Faculty Development Program on Cyber Security	24.05.2023-26.05.2023	3 Days	11
2021-2022	Three days Faculty Development Program on Python Programming	11.05.2022-13.05.2022	3 Days	12
2018-2019	Five days Faculty Development Program on CS6701-CRYPTOGRAPHY AND NETWORK SECURITY	28.05.2018-01.06.2018	5 Days	32
2017-2018	Two days Hands on Training programme on CLOUD COMPUTING AND HADOOP	04.09.2017-05.09.2017	2 Days	30
2017-2018	Five days Faculty Development Program on IT6601- MOBILE COMPTING	20.11.2017-24.11.2017	5 Days	45
2016-2017	Five days Faculty Development Program on CS6503- THEORY OF COMPUTATION	29.05.2017-02.06.2017	5 DAYS	35
2015-2016	Seven days Faculty Development Training programme on CS6660-Compiler Design(under Anna University FDTP)	28.11.2016-05.12.2016	7 Days	40

Internship Academic Year 2023-2024

Programme	Name of the student	Register No	Name of the organization	No of days
	Nagendran.S	820420104035	DLK Career Development	60 days
	Balaji.S.K	820420104008	CodSoft	28 days

BE-CSE	SwathiSree.S	820420104070	Sri Sai Rural Foundation	90 days

Internship Academic Year 2022-2023

Programme	Name of the student	Register No	Name of the organization	No of days
BE-CSE	N.Ambalavanan	820421104006	Indie Labs,Chennai	10 days
	S.Chandrabalan	820421104015	Indie Labs,Chennai	10 days
	M.Dhanush	820421104017	Indie Labs,Chennai	10 days
	C.Karnan	820421104034	Indie Labs,Chennai	10 days
	D.Abirami	820421104001	Indie Labs,Chennai	10 days
	R.Atchaya	820421104011	Indie Labs,Chennai	10 days
	I.Harshaa	820421104031	EngineerCore,IIT Alahabad	1 month
	I.Harshaa	820421104031	EngineerCore,IIT Alahabad	10 days
	M.Nisha	820421104044	Logaritha Technologies, Chennai	15 days
	S.Meenalochani	820421104042	Logaritha Technologies,Chennai	15 days
	S.Dushyanth	820421104024	Scion Research and Development,Thanjavur	28 days
	T.Eswar Raj	820421104025	Scion Research and Development,Thanjavur	28 days
	M.Adhisri	820421104002	Scion Research and Development,Thanjavur	28 days
	S.Lokesh Kumar	820421104040	Scion Research and Development, Thanjavur	28 days
	N.Dheepthi	820421104020	Logaritha Technologies, Chennai	15 days
BE-CSE	T.Kalaiselvan	820421104033	Scion Research and Development, Thanjavur	28 days
	M.Divyasri	820421104023	Scion Research and Development,Thanjavur	28 days
	R.Lakshmi	820421104039	Scion Research and Development,Thanjavur	28 days
	A.B.Keerthana	820421104036	Scion Research and Development,Thanjavur	28 days
	R.Krishna Priya	820421104037	Scion Research and Development,Thanjavur	28 days
	M.Atchaya	820421104010	Scion Research and	28 days

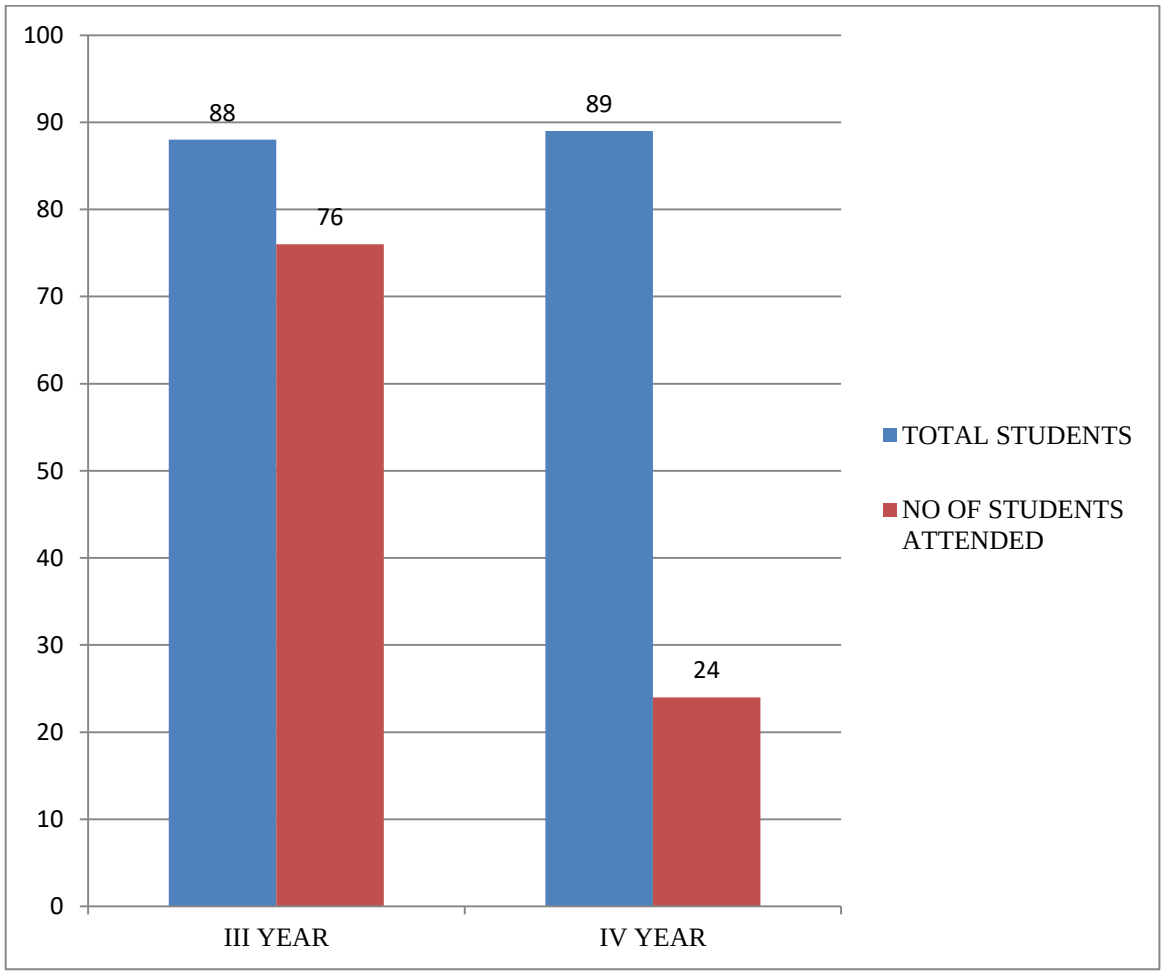
			Development,Thanjavur	
	R.Dharaniga	820421104018	Scion Research and Development,Thanjavur	28 days
	J.Akalya	820421104005	Scion Research and Development,Thanjavur	28 days
	S.Kuralarasi	820421104038	Scion Research and Development,Thanjavur	28 days
	S.Maheshwaran	820421104041	Scion Research and Development, Thanjavur	28 days
	G.Harish Thiyagarajan	820421104030	Scion Research and Development, Thanjavur	28 days
	R.Gowri	820421104027	EMGLITZ Technologies, Chennai	15days
BE-CSE	N.Afreen Fanas	820421104004	Scion Research and Development.Thanjavur	28 days
	M.Gobika	820421104026	Scion Research and Development. Thanjavur	28 days
	M.Rudra	820421104056	Logaritha Technologies,Chennai	15 days
	R.Shalini	820421104062	Logaritha Technologies,Chennai	15days
	V.Shrivaishnavi	820421104063	Logaritha Technologies, Chennai	15 days
	S.Sriharini	820421104064	Vebbex Software,Chennai	15 days
	K.Vanathi	820421104074	NSIC,Chennai	15 days
	U.S.Vanthana	820421104076	NSIC,Chennai	15 days
	A.Rishikesavan	820421104055	Logaritha Technologies, Chennai	15days
	M.Vignash	820421104079	Logaritha Technologies, Chennai	15days
	V.Vigneshwarn	820421104080	Logaritha Technologies, Chennai	15days
	G.Swetha	820421104069	Jiametric Technology, Chennai	15 days
	B.Thanya	820421104071	Jiametric Technology, Chennai	15days
	N.Veni Shri	820421104078	Jiametric Technology, Chennai	15 days
	K.SriKavi	820421104065	Jiametric Technology, Chennai	15days

	K.Harish Ragavendra	820421104702	PANTECH.Chennai	15 days
	K.Pragadeesh	820421104703	PANTECH.Chennai	15 days
	I.RamjanBegam	820421104051	NSIC,Chennai	5 days
	D.Suvegaa jeyam	820421104068	NSIC,Chennai	5 days
	Vishnu Prasath	820421104081	NSIC,Chennai	5 days
	M.Abubaker Sithik Rahuman	820421104701	ALO GROUPS.Chennai	15 days
	M.Preethi	820421104047	Scion Research and Development,Thanjavur	15 days
	M.Rakshambika	820421104050	Scion Research and Development,Thanjavur	15 days
	K.Rajadharshini	820421104049	Scion Research and Development,Thanjavur	15 days
BE-CSE	P.Sri Vaishali	820421104067	Code Bind Technology	15 days
	R.S.Sailesh Prasad	820421104059	NSIC,Chennai	1 week
	R.Srinivas	820421104066	NSIC,Chennai	1 week
	S.Thirumalai	820421104072	NSIC,Chennai	1 week
	R.Vishwak Ragul	820421104082	NSIC,Chennai	1 week
	B.Vasanth	820421104075	NSIC,Chennai	1 week
	R.Santosh Kumar	820421104061	NSIC,Chennai	1 week
	R.Prasanna Ragav	820421104046	NSIC,Chennai	1 week
	T.S.Sai Krishnan	820421104058	NSIC,Chennai	1 week
	B.Thulasi Rajan	820421104073	NSIC,Chennai	1 week
	V.Prasanna	820421104045	NSIC,Chennai	1 week
	S.Brindha	820421104014	Indie Labs.Chennai	10 days
	P.Dharun	820421104019	Scion Research and Development,Thanjavur	28 days
	M.Mohamed Saifudeen	820421104043	Scion Research and Development,Thanjavur	28 days
	A.Afras Nasrin	820421104003	Scion Research and Development, Thanjavur	28 days
	V.Charumathi	820421104016	Scion Research and Development, Thanjavur	28 days
	P.Harini	820421104029	Scion Research and Development, Thanjavur	28 days
	Jayaaravindha krishnan K. S	820421104301	Academy Europe	15 days
	Sriharini S	820421104064	Vebbex Software, Chennai	15 days

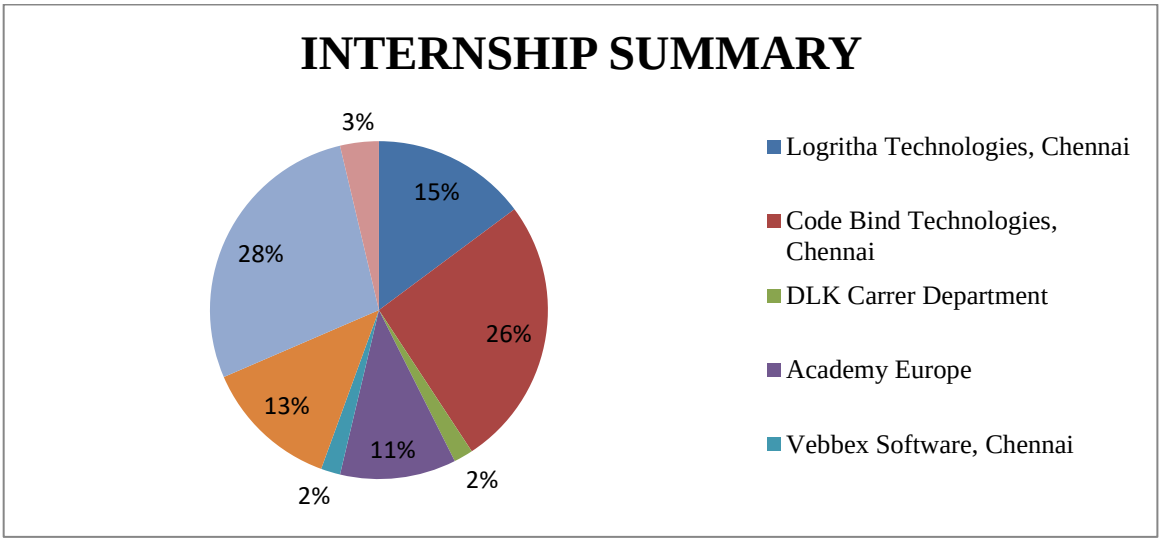
	K.V.K.Thirumal Azhagan	820421104303	Academy Europe	15 days
	Ramprasath M	820421104052	Academy Europe	15 days
	Pradeesh.P	820421104302	Academy Europe	15 days
	Joel Levitus S	820421104032	Academy Europe	15 days
	Ashwin T	820421104009	Academy Europe	15 days
	Kaviya R	820421104035	IndieLabs	10 days
	V. Divya Praba	820420104016	Logritha Technologies, Chennai	1 month
	K.R.Ganesh	820420104020	Code Bind Technologies, Chennai	5 days
BE-CSE	M.Aravinth	820420104301	Logritha Technologies, Chennai	1 month
	A.Vanthiya thevan	820420104074	code Bind Technologies, Chennai	5 days
	K.Ihshana Farveen	820420104026	code Bind Technologies, Chennai	5 days
	S.Vinoth Kumar	820420104080	Logritha Technologies, Chennai	1 month
	S.Subashini	820420104066	Logritha Technologies, Chennai	1 month
	S.Mirdhulani	820420104033	Code Bind Technologies, Chennai	5 days
	T.Kasthuri	820420104029	Logritha Technologies, Chennai	1 month
	D.Divya	820420104014	Code Bind Technologies, Chennai	5 days
	A.Abinesh	820420104004	Code Bind Technologies, Chennai	5 days
	K.Mahalakshmi	820420104032	Code Bind Technologies, Chennai	5 days
	S.Sureka	820420104069	DLK Carrer Department	5 days
	T.Thirumullai	820420104072	Code Bind Technologies, Chennai	5 days
	V.Harish	820420104025	Code Bind Technologies, Chennai	5 days
	N.Monisha	820420104054	Logritha Technologies, Chennai	1 month
	S.Nagendran	820420104035	Code Bind Technologies, Chennai	5 days

	P.Durgashini	820420104019	Code Bind Technologies, Chennai	5 days
	P.Devadharshini	820420104009	Logritha Technologies, Chennai	1 month
	S.Swathi Shree	820420104070	Code Bind Technologies, Chennai	5 days
	A.Shwetha	820420104061	Code Bind Technologies, Chennai	6 days
	Rakshanaa V	820420104047	Logritha Technologies, Chennai	1 month
	Varsha T	820420104075	Logritha Technologies, Chennai	1 month
	S.Vishnu Priya	820420104082	Code Bind Technologies, Chennai	6 days

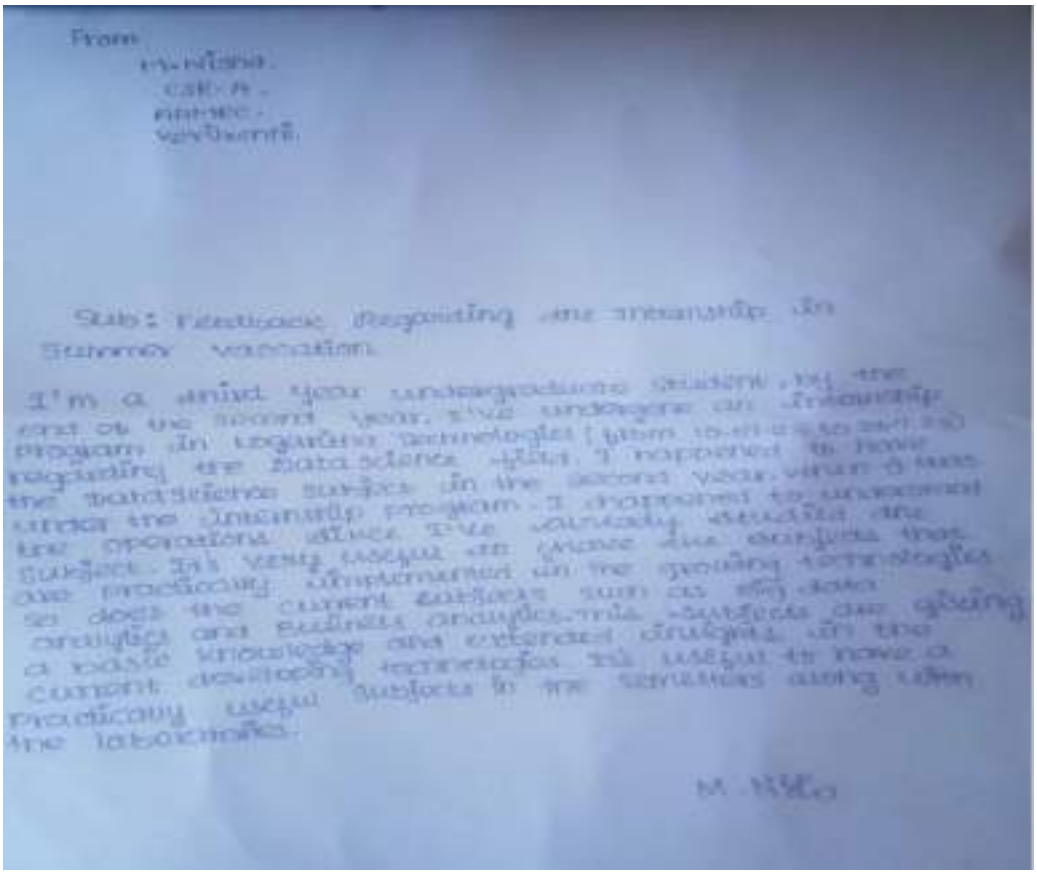
FINTERNSHIP SUMMARY



INTERNSHIP SUMMARY



Feedback on Internship

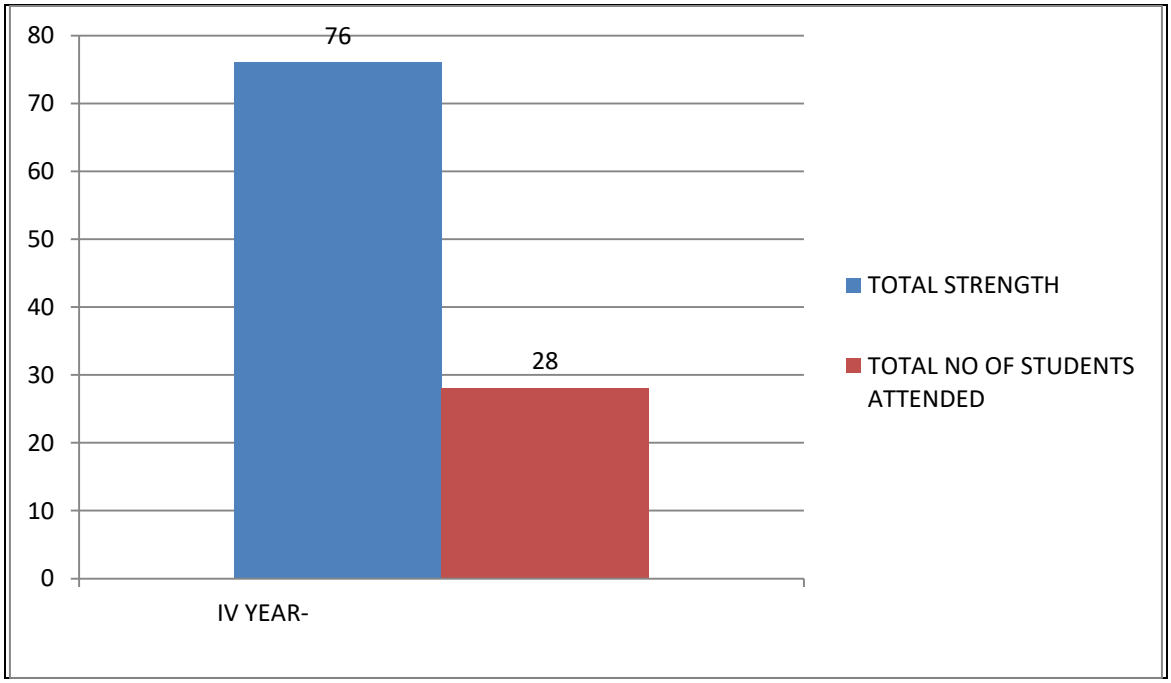


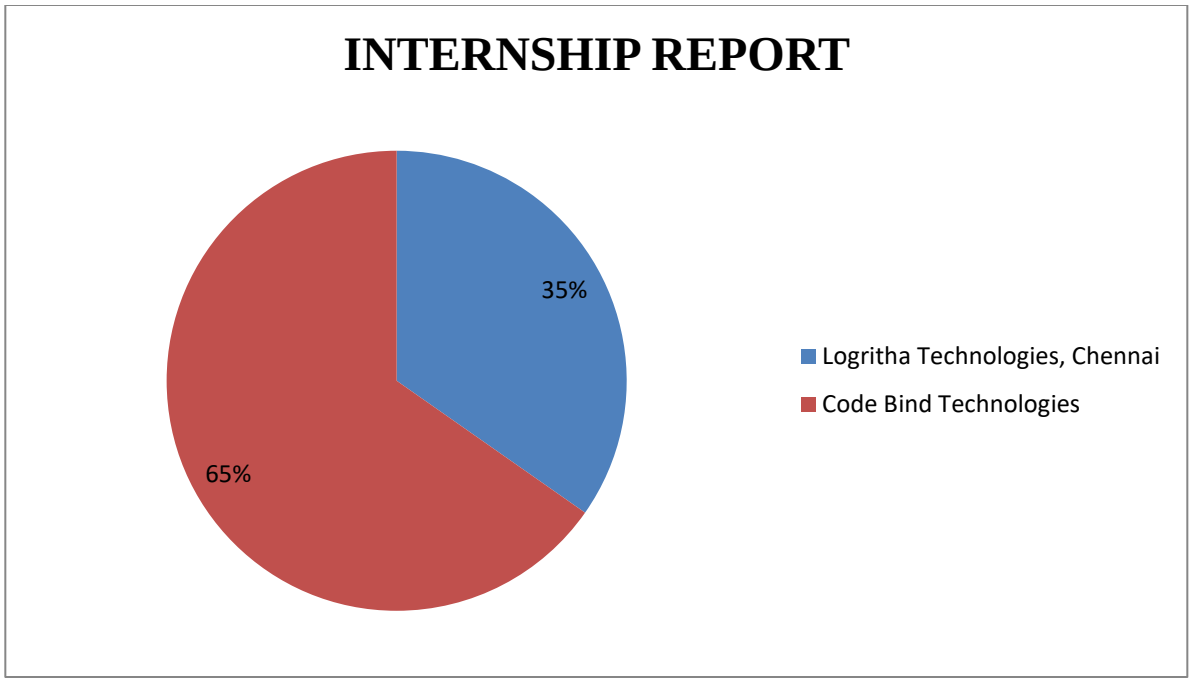
Academic Year 2021-2022

Programme	Name of the student	Register No	Name of the organization	No of days
BE-CSE	Santhoshini.M	820419104059	Code Bind Technologies	5 days
	Tamilprabha.R	820419104077	Code Bind Technologies	5 days
	Sugashini.T	820419104076	Code Bind Technologies	5 days
	Vaishnavi.P	820419104078	Code Bind Technologies	5 days
	Soundharya.P	820419104070	Code Bind Technologies	5 days
	Saranya.R	820419104061	Code Bind Technologies	5 days
	Subashri.D.R	820419104073	Code Bind Technologies	5 days
	Aravinth.M	820420104301	Code Bind Technologies	5 days
	Vinoth Kumar.S	820420104080	Code Bind Technologies	5 days
	Vinoth Kumar.S	820420104081	Code Bind Technologies	5 days
	Thirumullai.T	820420104072	Code Bind Technologies	5 days
	Rakshana.V	820420104047	Code Bind Technologies	5 days
	Ihshana Farveen.K	820420104026	Code Bind Technologies	5 days
	Nagendran.S	820420104035	Code Bind Technologies	5 days
	Harish.V	820420104025	Code Bind Technologies	5 days
BE-CSE	Swetha.A	820420104061	Code Bind Technologies	5 days
	Vishnu Priya S.	820420104082	Code Bind Technologies	5 days
	Srivaishnavi.M.R	820420104065	Code Bind Technologies	5 days
	Swathi Shree.S	820420104070	Code Bind Technologies	5 days
	Ragul Kulothungan.R	820420104045	Code Bind Technologies	5 days
	Vanthiyath Thevan.A	820420104074	Code Bind Technologies	5 days
	Mirudhulani.S	820420104033	Code Bind Technologies	5 days
	Durghashini.P	820420104019	Code Bind Technologies	5 days
	Divya.D	820420104014	Code Bind Technologies	5 days
	Sarukesh.S	820420104057	Code Bind Technologies	5 days
	Ganesh.K.R	820420104020	Code Bind Technologies	5 days
	Mahalakshmi.K	820420104032	Code Bind Technologies	5 days
	Sathya Jeyasri.S	820419104064	Code Bind Technologies	5 days
	Vijithra.P	820419104084	Code Bind Technologies	5 days
	Sivanandhini.R	820419104068	Code Bind Technologies	5 days
	Vinoth Kumar S	820420104080	Logritha Technologies , Chennai	1 month
	Vinoth Kumar S	820420104081	Logritha Technologies, Chennai	1 month
	Aravindh M	820420104301	Logritha Technologies,	1 month

			Chennai	
	Rakshanaa V	820420104047	Logritha Technologies, Chennai	1 month
	Vignesh R	820420104077	Logritha Technologies, Chennai	1 month
	Subashini S	820420104066	Logritha Technologies, Chennai	1 month
BE-CSE	Thirumullai T	820420104072	Logritha Technologies, Chennai	1 month
	Kasthuri T	820420104029	Logritha Technologies, Chennai	1 month
	Monisha N	820420104034	Logritha Technologies, Chennai	1 month
	Varsha T	820420104075	Logritha Technologies, Chennai	1 month
	Diviyaprabha V	820420104016	Logritha Technologies, Chennai	1 month
	Devadharshini P	820420104010	Logritha Technologies, Chennai	1 month
	Shwetha A	820420104061	Logritha Technologies, Chennai	1 month

INTERNSHIP SUMMARY



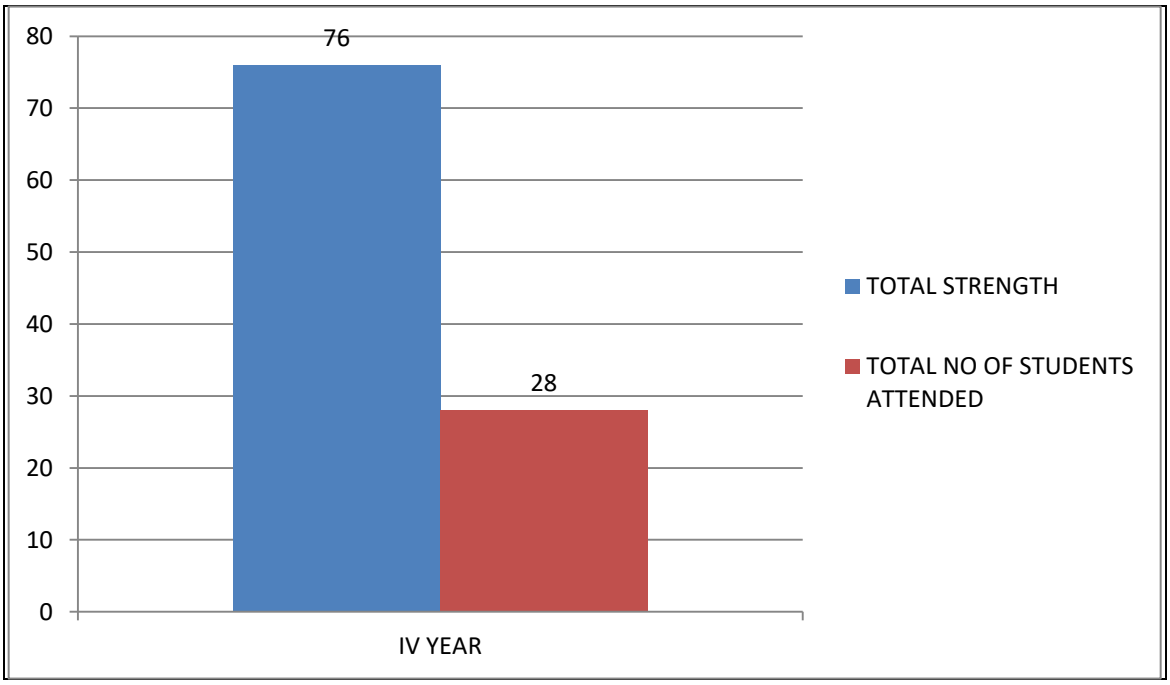


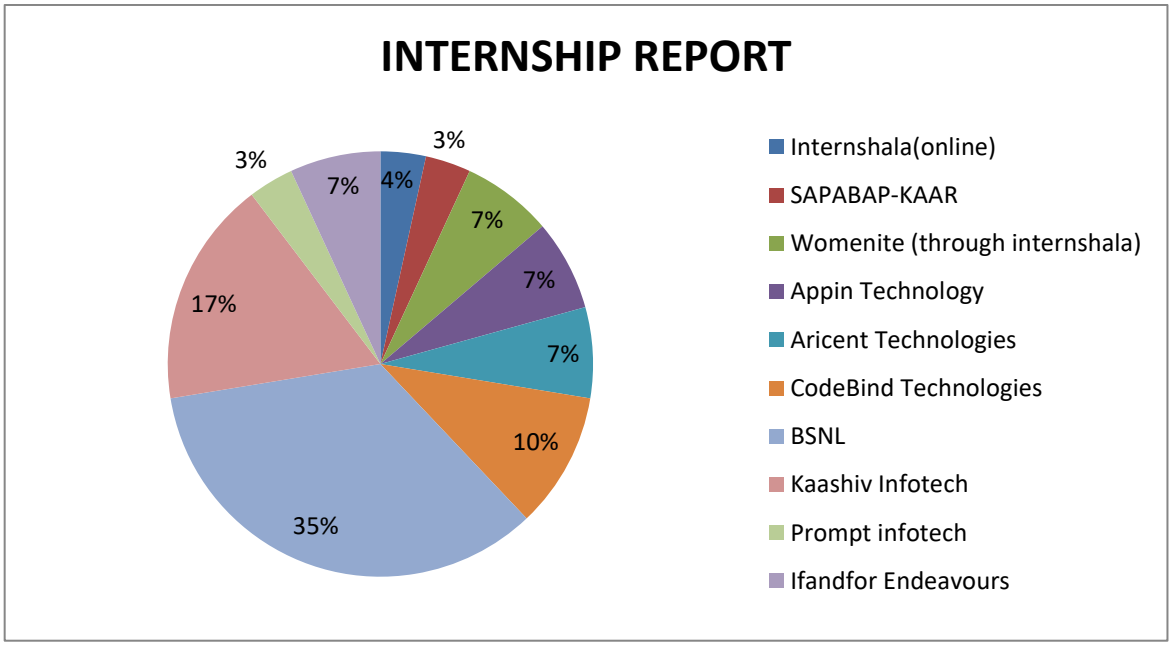
Academic Year 2020-2021

Programme	Name of the student	Register No	Name of the organization	No of days
BE-CSE	S.Deeplakshmi	820417104011	BSNL	5days
	S.DivyaSree	820417104012	Kaashiv Infotech	5days
	A.K.Divyadharani	820417104014	Ifandfor Endeavours	1day
	N.Gayathri	820417104015	BSNL	5days
	A.B.Gayatri	820417104016	Ifandfor Endeavours	1day
	S.Harini	820417104018	BSNL	
	P.Ishwarya	820417104020	BSNL	5days
	A.Karthika	820417104025	National Small Industries Corporation Limited-Technical Services Center	12days
	A.Karthika	820417104025	Code bind Technologies	5days
	B.Kaviya	820417104026	Code bind Technologies	1day
	S.LakshmiNivedhitha	820417104027	Kaashiv Infotech	5days
	U.Madhesh	820417104028	Prompt infotech	5days
	M.Manimozhi	820417104029	Code bind Technologies	5days
	T.Monica	820417104027	Kaashiv Infotech	5days
	B.NithyaSree	820417104039	BSNL	5days
	S.Pavithra	820417104043	BSNL	5days
	G.M.Prabakaran	820417104044	Codebind technologies	5days
	R.Preethi	820417104045	BSNL	5days

BE-CSE	R.Preethi	820417104046	CodeBind Technologies, Chennai.[In-Plant Training]	5days
	N.SivaBharathi	820417104060	CodeBind Technologies, Chennai..[In-Plant Training]	5days
	C.Sivaranjani	820417104061	Aricent Technologies, Thanjavur	5days
	R.Sonali	820417104063	Appin Technology, Coimbatore.[In-Plant Training]	5days
	M.Sowmiya	820417104066	Appin Technology, Coimbatore	5days
	S.Sadhana	820417104053	Aricent Technologies, Thanjavur	5days
	S.Sadhana	820417104053	Womenite (through internshala)	6days
	G.A.PriyaDharshini	820417104047	SAPABAP-KAAR Technology,Chennai	2Months
	P.Ragamaliga	820417104048	Internshala(online)	56Days
	K.Sasirekha	820417104058	Intershala(online)	4Weeks

INTERNSHIP SUMMARY

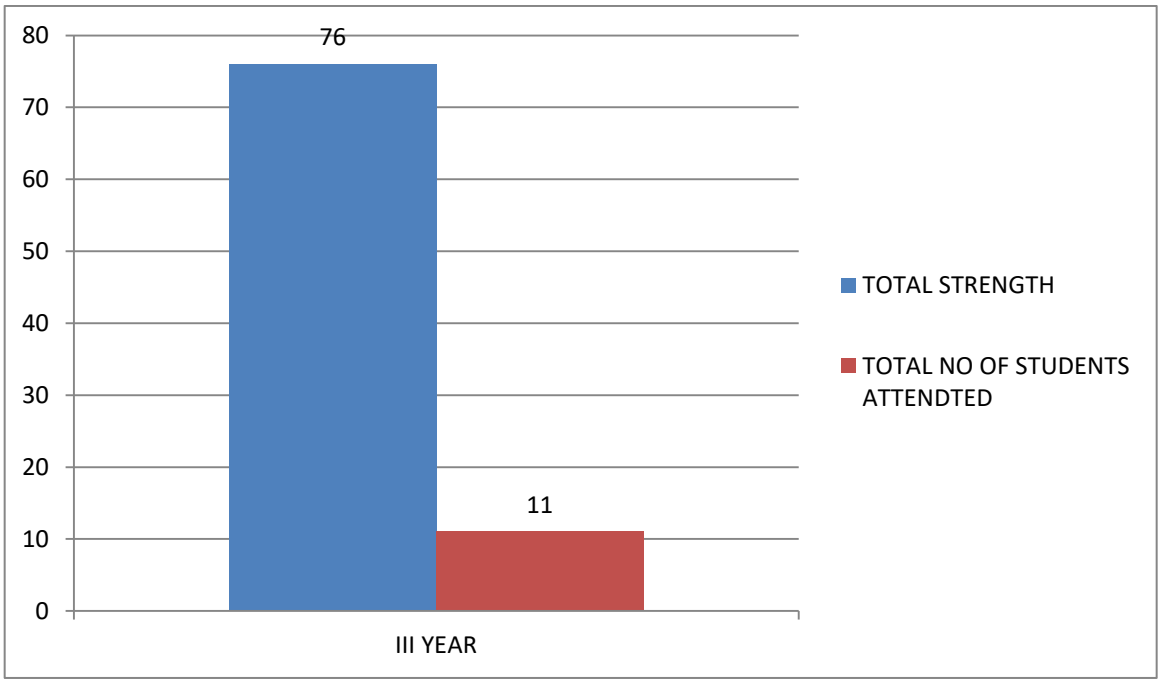


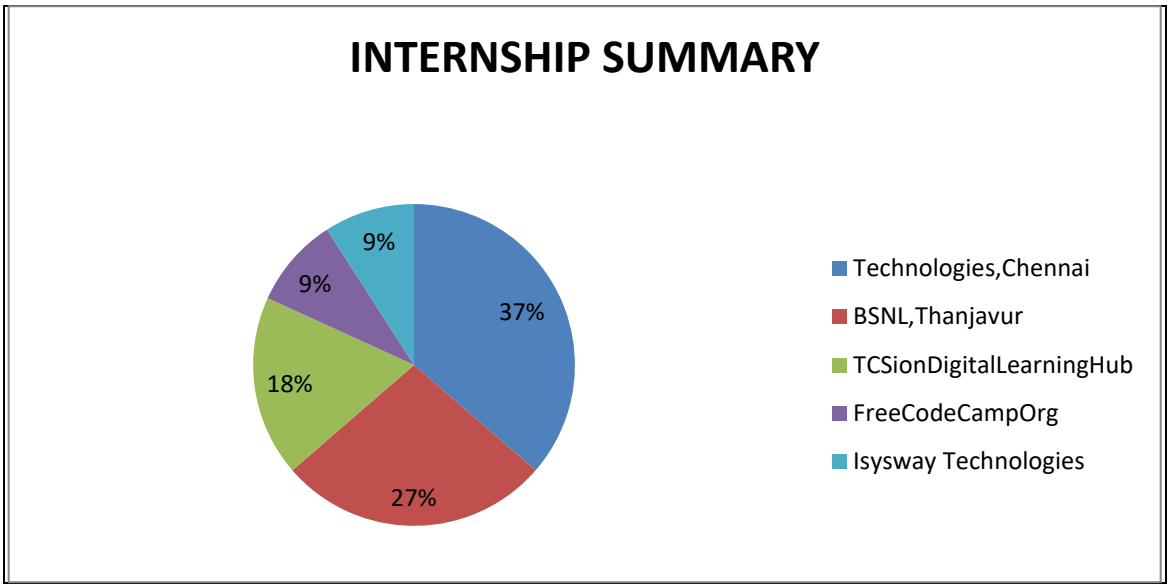


Academic Year 2019-2020

Programme	Name of the student	Register No	Name of the organization	No of days
BE-CSE	A.G.Sudheshna	820417104071	Technologies, Chennai	5days
	S.T.Karishmaa	820417104030	Technologies,Chennai	5days
	PreethiR	820417104045	BSNLThanjavur	5days
	VithyaM	820417104076	Isysway Technologies	30days
	B.T.Rakshana	820417104051	Technologies, Chennai	05days
BE-CSE	KarthikaA	820417104025	Technologies, Chennai	05days
	GayathiriN	820417104015	BSNL, Thanjavur	05days
	Nithiyasree.B	820417104039	BSNL, Thanjavur	05days
	RagamaligaP	820417104048	TCSion Digital Learning Hub	05days
	LakshmiNivedhithaS	820417104027	Free Code Camp Org	05days
	SasirekhaK	820417104058	TCSion Digital Learning Hub	15days

INTERNSHIP SUMMARY



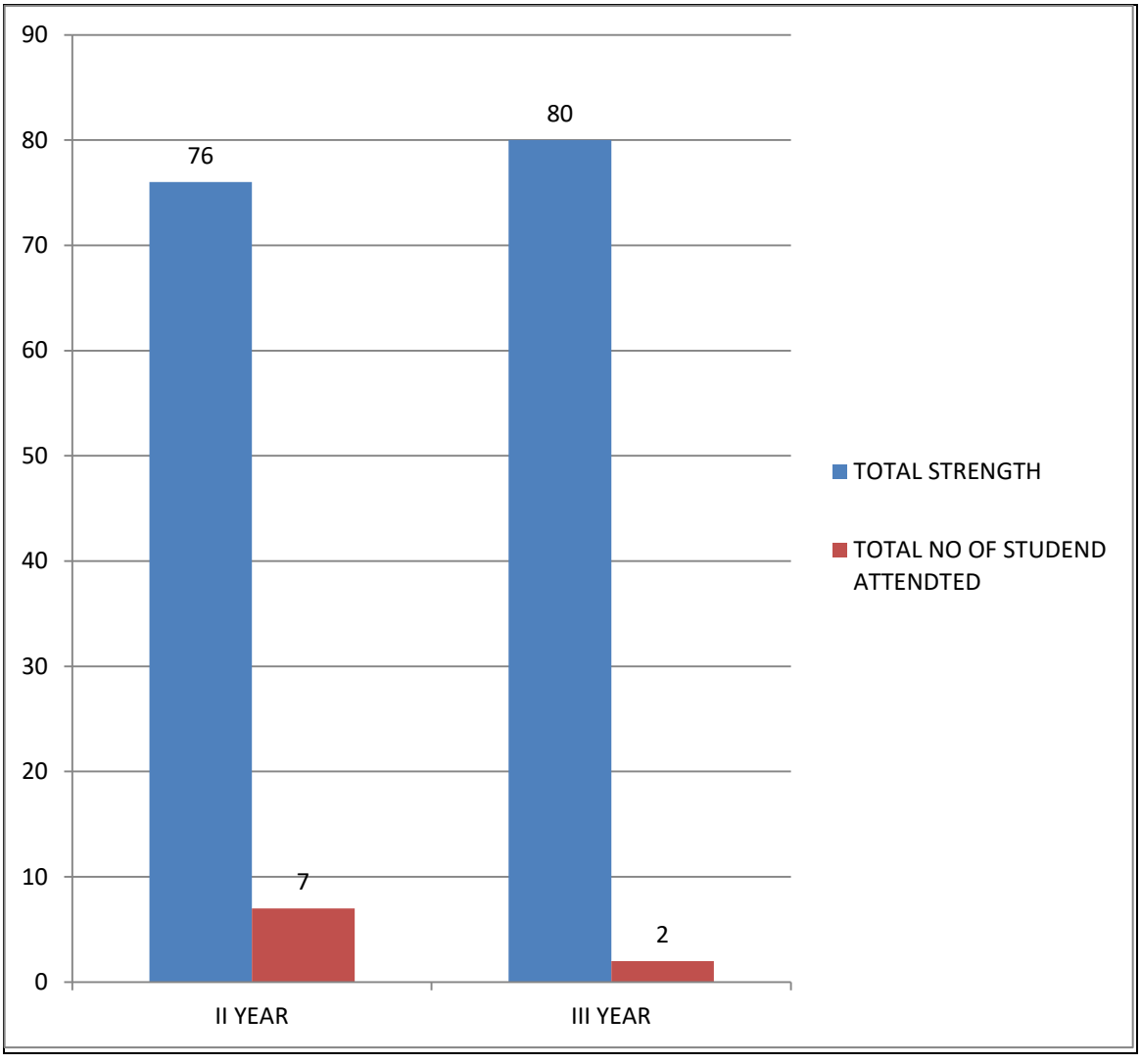


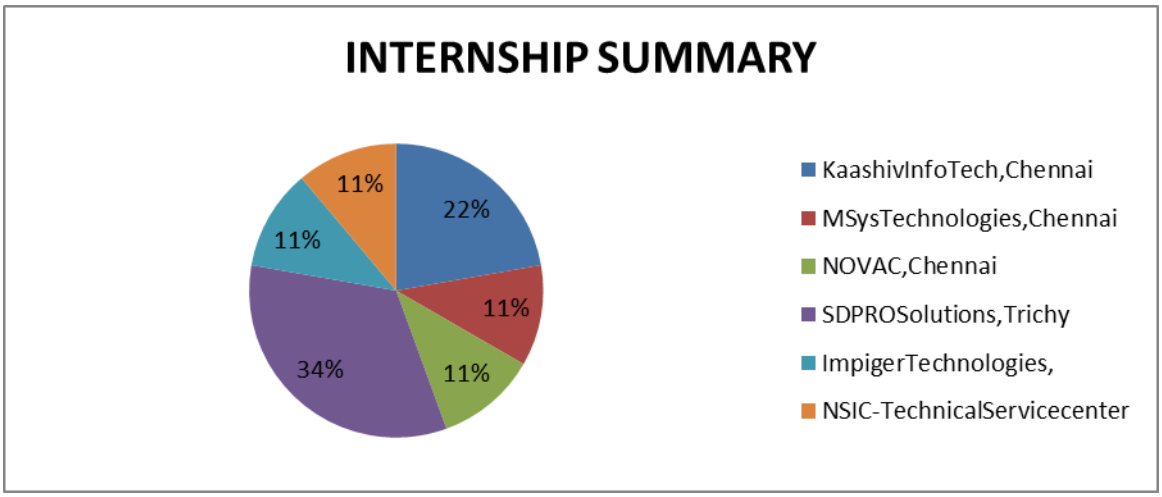
Academic Year: 2018-2019

Programme	Name of the student	Register No	Name of the organization	No of days
	S.DivyaShree	820417104012	Kaashiv InfoTech,Chennai	05days
	T.Monica	820417104032	Kaashiv InfoTech,Chennai	05days

BE-CSE	M.Arsith	820416104017	MSys Technologies, Chennai	01day
	S.Manisankar	820416104044	NOVAC, Chennai	03days
	M.Prabhakaran	820417104052	SDPRO Solutions,Trichy	02days
	B.Ramachandran	820417104057	SDPRO Solutions, Trichy	03days
	S.Ramar	820417104054	SDPRO Solutions,Trichy	04days
	B.SathamHussain	820417104063	Impiger Technologies, Chennai	02days
	KarthikaA	820417104063	NSIC-Technical Service center	02 weeks

INTERNSHIP SUMMARY







CERTIFICATE

OF PARTICIPATION

DHARUN P

has participated in the **Pixels to Predictions (Image Processing and Deep Learning Workshop)** conducted by the EEE Association on 24 February 2023.

Dr. M. P. Selvan
HoD, EEE

Dr. Josephine R. L
Faculty Advisor, EEEA



CERTIFICATE

OF PARTICIPATION

AMBALAVANAN N

has participated in the **Pixels to Predictions (Image Processing and Deep Learning Workshop)** conducted by the EEE Association on 24 February 2023.

Dr. M. P. Selvan
HoD, EEE

Dr. Josephine R. L
Faculty Advisor, EEEA



NSIC
ISO 9001 : 2015

राष्ट्रीय लघु उद्योग निगम लिमिटेड

NATIONAL SMALL INDUSTRIES CORPORATION LIMITED
(A Govt. of India Enterprise)

NSIC - TECHNICAL SERVICES CENTRE,
Sector B-24, Guindy Industrial Estate, Ekkaduthangal, Chennai - 600 032

CERTIFICATE

This is to certify that Mr./Ms. **KARTHIKA.A** S/o/ D/o Shri. **ANBAZHAGAN.K** student of II year B.E (CSE), Anjalai Ammal Mahalingam Engineering College, has undergone Internship Training on **REALTIME EMBEDDED SYSTEM DEVELOPMENT FOR INDUSTRIAL APPLICATIONS** at our centre for a period of **Two Weeks** from 03.06.2019 to 14.06.2019.

COURSE CO-ORDINATOR

CENTRE HEAD

Incubation Centre



Mr.MuthuKumar from Wonderpreneur , Chennai delivering a guest lecture on entrepreneur culture

CRITERION 3

COURSE OUTCOMES AND PROGRAM OUTCOMES

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

CRITERION 3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120

3. COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

3.1 Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20)

PSO1:	**Foundation of computational technologies:** To analyze, design and develop computing solutions by applying foundational concepts of Computer Science and Engineering.
PSO2:	**Software development process:** To apply software engineering principles and practices for developing quality software for scientific and business applications
PSO3:	**Deployment of new technologies**: To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.

3.1.1 Course Outcomes(COs)(SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (5)

Course Name: **204- CS8392 Object Oriented Programming** Course Year: **2019-2023**

Course Name	Statements
C204.1	Develop Java programs using OOP principles
C204.2	Develop Java programs with the concepts inheritance and interfaces
C204.3	Build Java applications using exceptions and I/O streams
C204.4	Develop Java applications with threads and generics classes
C204.5	Develop interactive Java programs using swings

Course Name: **213- CS8451 Design and Analysis of Algorithms** Course Year: **2019-2023**

Course Name	Statements
C213.1	Interpret the fundamental needs of algorithms in problem solving and time and space complexity analysis.
C213.2	Analyze the Brute Force and Divide and Conquer algorithm design techniques for a given problem.
C213.3	Examine the Dynamic and Greedy algorithm design techniques for a given problem
C213.4	Discuss the Iterative improvement algorithm design techniques for a given problem
C213.5	Identify the limitations of algorithms in problem solving.

Course Name: **303- EC8691 Microprocessors & Microcontrollers** Course Year: **2019-2023**

Course Name	Statements
C303.1	Apply and execute programs based on 8086 microprocessor.
C303.2	Develop Memory Interfacing circuits.
C303.3	Construct and interface I/O circuits.
C303.4	Design and implement 8051 microcontroller based systems.
C303.5	Develop Interfacing with 8051.

Course Name: **314- CS8603 Distributed Systems** Course Year: **2019-2023**

Course Name	Statements
C314.1	Describe the foundations and issues of distributed systems
C314.2	Examine the various synchronization issues and global state for distributed systems.
C314.3	Apply the mutual exclusion and deadlock detection algorithms in distributed systems.
C314.4	Develop the agreement protocols and fault tolerance mechanisms in distributed systems.
C314.5	Identify the features of peer-to-peer and distributed shared memory systems.

Course Name: **402- CS8792 Cryptography and Network Security** Course Year: **2019-2023**

Course Name	Statements
C402.1	Describe the fundamentals of networks security, security architecture, threats and vulnerabilities
C402.2	Apply the different cryptographic operations of symmetric cryptographic algorithms
C402.3	Apply the different cryptographic operations of public key cryptography
C402.4	Apply the various Authentication schemes to simulate different applications.
C402.5	Explain various Security practices and System security standards

Course Name: **409- IT8073 Information Security** Course Year: **2019-2023**

Course Name	Statements
CS409.1	Discuss the basics of information security
CS409.2	Illustrate the legal, ethical and professional issues in information security
CS409.3	Explain the aspects of risk management.
CS409.4	Explain the various standards in the Information Security System

CS409.5	Design and implementation of Security Techniques.

3.1.2 CO-PO matrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 3rd to 8th semester) (5)

Course Name: **204- CS8392 Object Oriented Programming**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C204.1	2	2	3	-	-	-	-	-	-	-	-	-
C204.2	2	2	3	-	-	-	-	-	-	-	-	-
C204.3	2	2	3	-	-	-	-	-	-	-	-	-
C204.4	2	2	3	-	-	-	-	-	-	-	-	-
C204.5	2	2	3	-	-	-	-	-	-	-	-	-
Average	2	2	3	-	-	-	-	-	-	-	-	-

Course Name: **213- CS8451 Design and Analysis of Algorithms**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C213.1	3	3	2	-	-	-	-	-	2	3	-	2
C213.2	3	3	2	-	-	-	-	-	2	3	-	2
C213.3	3	3	2	-	-	-	-	-	2	3	-	2
C213.4	3	3	2	-	-	-	-	-	2	3	-	2
C213.5	3	3	2	-	-	-	-	-	2	3	-	2
Average	3	3	2	-	-	-	-	-	2	3	-	2

Course Name: **303- EC8691 Microprocessors & Microcontrollers**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303.1	3	3	3	-	3	-	-	-	-	-	-	-
C303.2	3	3	3	-	3	-	-	-	-	-	-	-
C303.3	3	3	3	-	3	-	-	-	-	-	-	-
C303.4	3	3	3	-	3	-	-	-	-	-	-	-
C303.5	3	3	3	-	3	-	-	-	-	-	-	-
Average	3	3	3	-	3	-	-	-	-	-	-	-

Course Name: **314- CS8603 Distributed Systems**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314.1	3	3	3	-	-	-	-	-	-	-	-	-
C314.2	3	3	3	-	-	-	-	-	-	-	-	-
C314.3	3	3	3	-	-	-	-	-	-	-	-	-
C314.4	3	3	3	-	-	-	-	-	-	-	-	-
C314.5	3	3	3	-	-	-	-	-	-	-	-	-
Average	3	3	3	-	-	-	-	-	-	-	-	-

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Course Name: **402- CS8792 Cryptography and Network Security**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402.1	2	3	1	-	-	-	-	-	-	-	-	-
C402.2	2	3	1	-	-	-	-	-	-	-	-	-
C402.3	2	3	1	-	-	-	-	-	-	-	-	-
C402.4	2	3	1	-	-	-	-	-	-	-	-	-
C402.5	2	3	1	-	-	-	-	-	-	-	-	-
Average	2	3	1	-	-	-	-	-	-	-	-	-

Course Name: **409- IT8073 Information Security**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C409.1	3	2	2	-	-	-	-	2	-	-	-	-
C409.2	2	3	2	-	-	-	-	2	-	-	-	-
C409.3	1	3	2	-	-	-	-	2	-	-	-	-
C409.4	1	2	3	-	-	-	-	2	-	-	-	-
C409.5	3	1	2	-	-	-	-	2	-	-	-	-
Average	2	2.2	2.2	-	-	-	-	2	-	-	-	-

Course Name: **204- CS8392 Object Oriented Programming**

Course	PSO1	PSO2	PSO3
C204.1	3	3	2
C204.2	3	3	2
C204.3	3	3	2
C204.4	3	3	2
C204.5	3	3	2
Average	3	3	2

Course Name: **213- CS8451 Design and Analysis of Algorithms**

Course	PSO1	PSO2	PSO3
C213.1	3	3	2
C213.2	3	3	2
C213.3	3	3	2
C213.4	3	3	2
C213.5	3	3	2
Average	3	3	2

Course Name: **303- EC8691 Microprocessors & Microcontrollers**

Course	PSO1	PSO2	PSO3

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C303.1	3	3	3
C303.2	3	2	2
C303.3	3	2	2
C303.4	3	3	3
C303.5	3	2	2
Average	3	2.4	2.4

Course Name: **314- CS8603 Distributed Systems**

Course	PSO1	PSO2	PSO3
C314.1	3	1	1
C314.2	3	1	1
C314.3	3	1	1
C314.4	3	1	1
C314.5	3	1	1
Average	3	1	1

Course Name: **402- CS8792 Cryptography and Network Security**

Course	PSO1	PSO2	PSO3
C402.1	2	1	1
C402.2	2	3	1
C402.3	2	3	1
C402.4	2	3	1
C402.5	2	3	1
Average	2	2.6	1

Course Name: **409- IT8073 Information Security**

Course	PSO1	PSO2	PSO3
C409.1	3	1	2
C409.2	3	3	1
C409.3	3	2	1
C409.4	2	3	2
C409.5	3	2	1
Average	2.8	2.2	1.4

3.1.3 - A Program level Course-PO matrix of all courses INCLUDING first year courses (10)

PROGRAM ARTICULATION MATRIX- 2017 Regulation

Course Code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101-HS8151	Communicative English	-	-	-	-	-	-	-	3	3	3	-	1
C102-MA8151	Engineering Mathematics - I	3	2	3	-	-	-	-	-	2	-	-	-
C103-PH8151	Engineering Physics	3	3	3	-	-	-	-	-	-	-	-	-
C104-CY8151	Engineering Chemistry	3	2	3	-	-	-	-	-	-	-	-	-
C105-GE8151	Problem Solving and Python Programming	3	2	2	-	3	-	-	-	-	-	-	2
C106-GE8152	Engineering Graphics	3	2	3	-	-	-	-	3	3	3	-	3
C107-GE8161	Problem Solving and Python Programming Laboratory	3	3	3	-	-	-	-	3	3	3	-	3
C108-BS8161	Physics and Chemistry Laboratory	3	3	3	-	-	-	-	2	3	2	-	-
C109-HS8251	Technical English	-	-	-	-	-	-	-	2	3	3	-	1
C110-MA8251	Engineering Mathematics - II	3	2	3	-	-	-	-	-	2	-	-	-
C111-PH8252	Physics for Information Science	3	2	3	-	-	-	-	-	-	-	-	-
C112-BE8255	Basic Electrical, Electronics and Measurement Engineering	3	2	3	-	-	-	-	-	-	-	-	-

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Course Code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C113-GE8291	Environmental Science and Engineering	2	3	2	-	-	-	3	3	3	3	-	2
C114-CS8251	Programming in C	3	3	2	-	-	-	-	2	3	3	-	3
C115-GE8261	Engineering Practices Laboratory	2	1	2	1	2	2	-	2	2	1	-	2
C116-CS8261	C Programming Laboratory	3	3	3	-	-	-	-	3	3	3	-	3
C201-MA8351	Discrete Mathematics	3	2	3	-	-	-	-	-	2	-	-	-
C202-CS8351	Digital Principles and System Design	3	3	3	-	-	-	-	-	-	-	-	-
C203-CS8391	Data Structures	3	3	1	-	-	-	-	-	-	-	-	-
C204-CS8392	Object Oriented Programming	2	2	3	-	-	-	-	-	-	-	-	-
C205-EC8395	Communication Engineering	2.6	2.8	2.6	-	-	-	-	-	-	-	-	-
C206-CS8383	Data Structures Laboratory	3	3	1	-	-	-	-	3	3	2	-	2
C207-CS8382	Object Oriented Programming Laboratory	3	3	3	-	-	-	-	3	3	3	-	3
C208-CS8382	Digital Systems Laboratory	3	2	2	-	-	2	-	1	1	1	-	1
C209-HS8381	Interpersonal Skills/Listening &Speaking	-	-	-	-	-	-	-	3	3	3	-	3
C210-	Probability and	2.8	2	1	-	-	-	-	-	-	-	-	3

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MA8402	Queueing Theory												
C211-CS8491	Computer Architecture	**3**	**3**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C212-CS8492	Database Management Systems	**3**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C213-CS8451	Design and Analysis of Algorithms	**3**	**3**	**2**	**-**	**-**	**-**	**-**	**-**	**2**	**3**	**-**	**2**
C214-CS8493	Operating Systems	**3**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C215-CS8494	Software Engineering	**3**	**2.2**	**2**	**-**	**2**	**2**	**-**	**2**	**2**	**1.8**	**-**	**1.8**
C216-CS8481	Database Management Systems Laboratory	**3**	**2**	**3**	**-**	**-**	**-**	**-**	**3**	**1**	**3**	**-**	**2**
C217-CS8461	Operating Systems Laboratory	**3**	**3**	**3**	**-**	**-**	**-**	**-**	**3**	**3**	**3**	**-**	**3**
C218-HS8461	Advanced Reading and Writing EEC	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3**	**3**	**3**	**-**	**3**
C301-MA8551	Algebra and Number Theory	**3**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**-**
C302-CS8591	CS8591 Computer Networks	**3**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C303-EC8691	EC8691 Microprocessors and Microcontrollers	**3**	**3**	**3**	**-**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C304-	Theory of	**3**	**1**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

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CS8501	Computation												
C305-CS8592	CS8592 Object Oriented Analysis and Design	**1.6**	**3**	**2.8**	**-**	**-**	**2.4**	**-**	**-**	**-**	**-**	**-**	**-**
C306-OEC552	Soft Computing	**3**	**2.6**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C307-EC8681	Microprocessors and Microcontrollers Laboratory	**3**	**3**	**3**	**-**	**-**	**-**	**-**	**3**	**3**	**3**	**-**	**3**
C308-CS8582	Object Oriented Analysis and Design Laboratory	**2**	**3**	**3**	**-**	**3**	**3**	**-**	**3**	**3**	**3**	**-**	**3**
C309-CS8581	Networks Laboratory	**3**	**3**	**2.6**	**-**	**-**	**-**	**-**	**3**	**2.6**	**1**	**-**	**3**
C310-CS8651	Internet Programming	**1**	**2.2**	**3**	**-**	**3**	**-**	**-**	**-**	**2**	**-**	**-**	**-**
C311-CS8691	Artificial Intelligence	**2.6**	**2.8**	**2.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C312-CS8601	Mobile Computing	**3**	**2.6**	**2.8**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C313-CS8602	Compiler Design	**3**	**3**	**3**	**-**	**-**	**-**	**-**	**1**	**1.4**	**1.4**	**-**	**2**
C314-CS8603	Distributed Systems	**3**	**3**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C315-CS8075	Data Warehousing and Data Mining	**3**	**1.8**	**1.8**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C316-	Internet	**0.3**	**1**	**1.3**	**-**	**3**	**-**	**-**	**1**	**2**	**2**	**-**	**2**

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Course Code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CS8661	Programming Laboratory												
C317-CS8662	Mobile Application Development Laboratory	**3**	**2**	**2.66**	**-**	**-**	**-**	**-**	**1**	**2.66**	**1**	**-**	**3**
C318-CS8611	Mini Project	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**3**	**1**	**2**	**1**
C319-HS8581	Professional Communication	**-**	**-**	**-**	**-**	**-**	**3**	**-**	**-**	**-**	**3**	**-**	**3**
C401-MG8591	Principles of Management	**3**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.4**	**-**
C402-CS8792	Cryptography and Network Security	**2**	**3**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C403-CS8791	Cloud Computing	**2**	**2.4**	**2.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C404-OME752	Supply Chain Management	**0.4**	**1**	**2.4**	**-**	**0.6**	**1.2**	**2**	**1**	**2.4**	**-**	**0.6**	**1.2**
C405-CS8083	Big Data Analytics	**2**	**2.4**	**2.2**	**-**	**2**	**-**	**-**	**-**	**1.6**	**1.6**	**-**	**-**
C406-CS8091	Multi-core Architecture and Programming	**2.2**	**2.6**	**2.8**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C407-CS8091	Cloud Computing Laboratory	**2.33**	**3**	**3**	**-**	**3**	**-**	**-**	**3**	**2.66**	**2**	**-**	**3**
C408-IT8761	Security Laboratory	**3**	**3**	**3**		**3**	**-**	**-**	**2.66**	**2**	**3**	**-**	**2.67**
C409-GE8076	Professional Ethics in	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3**	**-**	**-**	**-**	**3**

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Course Code	Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	Engineering												
C410-CS8080	Information Retrieval Techniques	**2**	**2.2**	**2.2**	-	-	-	-	-	-	-	-	-
C411-CS8811	Project Work	**3**	**3**	**2**	**3**	**3**	**3**	**1**	**3**	**3**	**3**	**1**	**2**

3.1.3 - B Program level Course-PSO matrix of all courses INCLUDING first year courses (10)

CO-PSO Matrix

Course Code	Course Name	PSO 1	PSO 2	PSO 3
C101-HS8151	Communicative English	-	-	-
C102-MA8151	Engineering Mathematics - I	3	3	-
C103-PH8151	Engineering Physics	-	-	-
C104-CY8151	Engineering Chemistry	-	-	-
C105-GE8151	Problem Solving and Python Programming	3	2	2
C106- GE8152	Engineering Graphics	-	-	-
C107-GE8161	Problem Solving and Python Programming Laboratory	3	2	2
C108-BS8161	Physics and Chemistry Laboratory	-	-	-
C109-HS8251	Technical English	-	-	-
C110-MA8251	Engineering Mathematics - II	3	3	-
C111-PH8252	Physics for Information Science	2	-	-
C112-BE8255	Basic Electrical, Electronics and Measurement Engineering	-	-	-
C113-GE8291	Environmental Science and Engineering	-	-	-
C114-CS8251	Programming in C	3	2	2
C115-GE8261	Engineering Practices Laboratory	-	-	-
C116-CS8261	C Programming Laboratory	3	2	2

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Course Code	Course Name	PSO 1	PSO 2	PSO 3
C201-MA8351	Discrete Mathematics	3	3	-
C202-CS8351	Digital Principles and System Design	3	2.4	1
C203-CS8391	Data Structures	3	2	2
C204-CS8392	Object Oriented Programming	3	3	2
C205-EC8395	Communication Engineering	1.2	1.2	2
C206-CS8383	Data Structures Laboratory	3	2	2
C207-CS8382	Object Oriented Programming Laboratory	3	3	3
C208- CS8382	Digital Systems Laboratory	1	1	2
C209-HS8381	Interpersonal Skills/Listening &Speaking	-	-	-
C210-MA8402	Probability and Queueing Theory	2	1.8	-
C211-CS8491	Computer Architecture	3	2.4	1
C212-CS8492	Database Management Systems	3	2	2
C213-CS8451	Design and Analysis of Algorithms	3	3	2
C214-CS8493	Operating Systems	3	2	2
C215-CS8494	Software Engineering	3	3	1
C216-CS8481	Database Management Systems Laboratory	3	2	2
C217-CS8461	Operating Systems Laboratory	3	2	2
C218-HS8461	Advanced Reading and Writing EEC	-	-	-
C301-MA8551	Algebra and Number Theory	2.4	1.6	-
C302-CS8591	CS8591 Computer Networks	3	2.8	1.4
C303-EC8691	EC8691 Microprocessors and Microcontrollers	3	2.4	2.4
C304-CS8501	Theory of Computation	2.6	2	-
C305-CS8592	Object Oriented Analysis and Design	3	3	2
C306-OEC552	Soft Computing	3	2	2.8
C307-EC8681	Microprocessors and Microcontrollers Laboratory	3	2	2
C308-CS8582	Object Oriented Analysis and Design Laboratory	3	3	3
C309-CS8581	Networks Laboratory	3	3	2
C310-CS8651	Internet Programming	0.8	0.8	3
C311-CS8691	Artificial Intelligence	2.6	2.6	2.8
C312-CS8601	Mobile Computing	3	3	1.4
C313-CS8602	Compiler Design	3	2.4	1
C314-CS8603	Distributed Systems	3	1	1

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Course Code	Course Name	PSO 1	PSO 2	PSO 3
C315-CS8075	Data Warehousing and Data Mining	3	2.4	1
C316-CS8661	Internet Programming Laboratory	0.667	0.667	3
C317-CS8662	Mobile Application Development Laboratory	3	3	2
C318-CS8611	Mini Project	3	3	1
C319-HS8581	Professional Communication	-	-	-
C401-MG8591	Principles of Management	2	3	2
C402-CS8792	Cryptography and Network Security	2	2.6	1
C403-CS8791	Cloud Computing	2.8	2.2	1.4
C404-OME752	Supply Chain Management	3	2	0.6
C405-CS8083	Big Data Analytics	2.4	1.2	1.2
C406-CS8091	Multi-core Architecture and Programming	2	1.8	1.6
C407-CS8091	Cloud Computing Laboratory	2.667	3	2.333
C408-IT8761	Security Laboratory	3	3	1
C409-GE8076	Professional Ethics in Engineering	3	2	1
C410-CS8080	Information Retrieval Techniques	2.6	2.2	1.4
C411-CS8811	Project Work	3	3	3

3.2 Attainment of Course Outcomes (50)

3.2.1. Describe the assessment tools and processes used to gather the data upon which the evaluation of Course Outcome is based (10)

In the Outcome Based Education (OBE), assessment is done through one or more than one processes, carried out by the institution, that identify, collect, and prepare data to evaluate the achievement of (COs). Direct methods display the student's knowledge and skills from their performance in the continuous internal assessment tests, semester examinations, seminars, class room and laboratory assignments, etc. These methods provide a sampling of what students know and/or can do and provide strong evidence of student learning. The following are the Direct Methods of assessment.



Table 3.2.1.1 - Direct Assessment Methods

Direct Assessment Methods		
1	Internal Assessment Test	Three tests each carrying 100 marks shall be conducted during the semester by the Department. The total marks obtained in all tests put together out of 300, shall be proportionately reduced for 20 marks and rounded to the nearest integer (This also implies equal weightage to all the three tests). Practical component / Case study is included in the theory courses (wherever applicable) and the assessment is based on the performance in the practical work.
2	Laboratory Assignments	The maximum marks for Internal Assessment shall be 20 in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records maintained. There shall be at least one test. The criterion for arriving at the Internal Assessment marks of 20 is as follows: 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the test. The total mark shall be reduced to 20 and rounded to the nearest integer. Lab Assignment can be one of the measuring criteria to mainly assess student's practical knowledge with their designing capabilities.
3	End semester examinations	End semester examination is scheduled and conducted by the Anna University for both theory and Practical Courses .A candidate who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester University Examinations] with a minimum of 45% of the marks prescribed for the end-semester University Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for both theory and practical courses (including project work).
4	Assignments and Tutorials	Students are assigned with assignments in each course and also they are involved in solving tutorial questions for problem oriented courses.

5	Project work	There shall be three reviews during the semester by the review committee. The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be reduced for20marksand rounded to the nearest integer. Evaluation is done based on the involvement, contribution and outcome of student(s) in the activity which is assessed continuously through 3 internal review and End Semester Examination.

Direct assessment Methods

Internal Assessment Test-I, Internal Assessment Test –II, Internal Assessment Test-III, End semester Exam contain the marks for each of the Course Outcome (COs). Internal Assessment Test-I is conducted for assessing CO1 & CO2 and hence CO attainment is given 60% weightage for CO1 and 40% weightage for CO2. Similarly Internal Assessment Test-II is conducted for assessing CO3 & CO4 and hence CO attainment is also given 60% weightage for CO3 and 40% weightage for CO4. Internal Assessment Test-III is conducted for assessing CO5 and any one CO (CO1 or CO2 or CO3 or CO4) and hence CO attainment is also given 60% weightage for CO5 and 40% weightage for another one CO (CO1 or CO2 or CO3 or CO4). End Semester Examinations are covered for the entire five COs equally and hence uniform weightage of 20% respectively is considered for each of the above assessment of COs as given in table 3.2.1.2.

Table 3.2.1.2 – Distribution of marks for COs for Direct Assessment

S.No	Name of Assessment	Total marks	Applicable CO	Marks Allotted
1	Internal Assessment Examination - I	50	COs 1 & 2	30 for CO 1 & 20 for CO 2
2	Internal Assessment Examination - II	50	COs 3 & 4	30 for CO 3 & 20 for CO 4
3	Internal Assessment Examination - III	50	COs 5 & any other CO(CO 4 or CO 3 or CO 2 or CO 1)	30 for CO 5 & 20 for (CO 4 or CO 3 or CO 2 or CO 1)
4	End Semester Examination	100	All COs	20 for each CO

Based on the marks scored by the student in each CO, the level of CO attainment for a particular student is calculated as below:

Direct Course Outcome Attainment

Weightage to Internal Assessment Tests = 20%

Weightage to End Semester Examination = 80%

Direct CO attainment = 0.8 x End Semester Exams + 0.2 x Internal Assessment Test

Indirect Course Outcome Attainment

Course Exit Survey=20%

CO attainment

Weightage to Direct Attainment = 80%

Weightage to Indirect Attainment = 20%

CO attainment = 0.8 x Weightage of Direct Attainment + 0.2 x Weightage of Direct Attainment

Table 3.2.1.3- Weightage of CO – for Direct Assessment (Even Semester 2019 – 2020)						
Exam	**Marks**	**CO 1**	**CO 2**	**CO 3**	**CO 4**	**CO 5**
Internal Assessment Test I	50	30	20			
Internal Assessment Test II	50			30	20	
Internal Assessment Test III	50				20	30
End Semester Exam	100	20	20	20	20	20

Target is stated in terms of percentage of students getting more than 50% of relevant maximum marks as detailed below,

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.

Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.

Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks, as in table 3.5.4.

Table 3.2.1.4 Measuring Course Attainment through assessment-Batch 2017-2021

Batch:2017-2021		
Attainment Level 1	Attainment Level 2	Attainment Level 3
60% of students securing more than 50 marks	**70% of students securing more than 50 marks**	**80% of students securing more than 50 marks**

Table 3.2.1.5 Measuring Course Attainment through assessment-Batch 2018-2022

Batch:2018-2022		
Attainment Level 1	Attainment Level 2	Attainment Level 3
65% of students securing more than 50 marks	**75% of students securing more than 50 marks**	**85% of students securing more than 50 marks**

Table 3.2.1.6 Measuring Course Attainment through assessment-Batch 2019-2023

Batch:2019-2023		
Attainment Level 1	Attainment Level 2	Attainment Level 3
65% of students securing more than 50 marks	**75% of students securing more than 50 marks**	**85% of students securing more than 50 marks**

Laboratory Course Assessment

Lab Performance – Internal Assessment

The Lab experiments address the COs of the respective Lab courses. During the Laboratory session, all the experiments are practically done using various equipments and software to enrich their knowledge in respective domains. In programming laboratory courses students are to write algorithm and execute program using a high level language and operating system. Additional programming exercises are given to address the need of advanced learners. The students maintain the observation and record notebook for each Laboratory course which reflects their work during the laboratory session and verified by the respective course handling staff. Experiments conducted by the students will be evaluated by the faculty members out of 10 marks for each experiment and the 10 marks awarded will address to relevant COs.

Table 3.2.1.7 Percentage Distribution of COs for Laboratory Courses

Assessment Type	CO1	CO2	CO3
Experiment Evaluation	20%	60%	20%

Project Work Assessment

Project work may be allotted to a single student or to a group of students not exceeding 4 per group. The Principal shall constitute a review committee for project work for each branch of study. There shall be three reviews during the semester by the review committee. The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be reduced for 20marks and rounded to the nearest integer .The project report shall carry a maximum 30 marks. The project report shall be submitted as per the approved guidelines as given by Director, Academic Courses. Same mark shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 50 marks. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

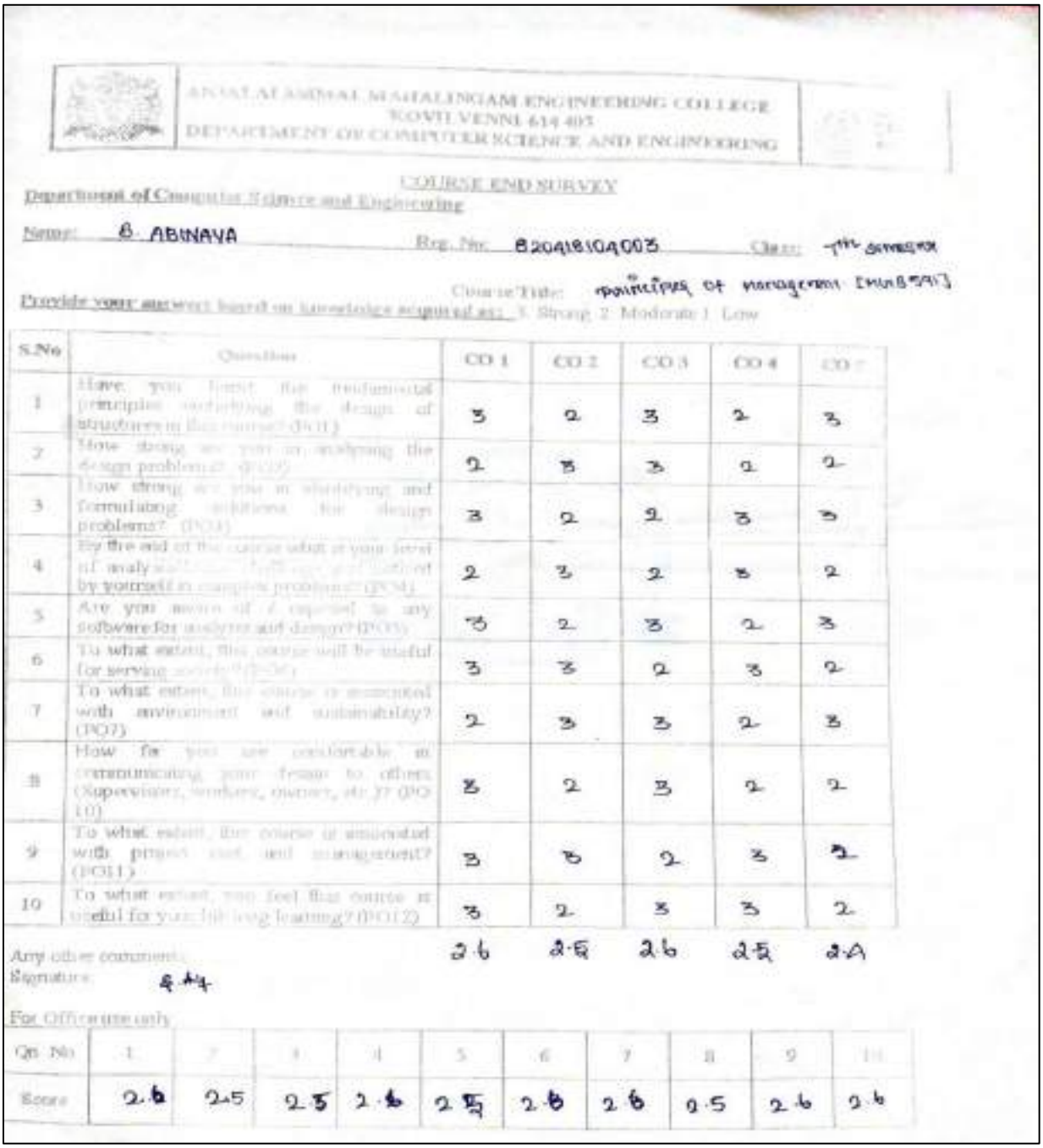
Table 3.2.1.8 Project Work Assessment

Review I	Review II	Review III	End semester Examinations				
			Thesis Submission (30)		Viva-Voce (50)		
5	7.5	7.5	Internal	External	Internal	External	Supervisor
			15	15	15	20	15

Indirect Assessment:

Course exit survey:

Course Exit survey is conducted to analyze the CO attainment, at the end of every semester. Questionnaire is prepared covering all the COs and the students are asked to submit their self-assessment / level of knowledge acquired on a 5 point scale.



ANNAMALAI MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI 614 403
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE END SURVEY

Department of Computer Science and Engineering

Name: B ABINAYA Reg. No: 820418104005 Class: 7th semester

Course Title: Principles of Management [MU8591]

Provide your answer based on knowledge acquired on a 5 Strong 2 Moderate 1 Low

S.No	Question	CO 1	CO 2	CO 3	CO 4	CO 5
1	Have you learnt the fundamental principles underlying the design of structures in this course? (PO1)	3	2	3	2	3
2	How strong are you in analysing the design problems? (PO2)	2	3	3	2	2
3	How strong are you in identifying and formulating solutions for design problems? (PO3)	3	2	2	3	3
4	By the end of the course what is your level of analysing complex problems by yourself in complex problems? (PO4)	2	3	2	3	2
5	Are you aware of / exposed to any software for analysis and design? (PO5)	3	2	3	2	3
6	To what extent, this course will be useful for serving society? (PO6)	3	3	2	3	2
7	To what extent, this course is concerned with environment and sustainability? (PO7)	2	3	3	2	3
8	How far you are comfortable in communicating your results to others (Supervisors, workers, owners, etc.)? (PO 10)	3	2	3	2	2
9	To what extent, this course is associated with project cost and management? (PO11)	3	3	2	3	2
10	To what extent, you feel this course is useful for your life long learning? (PO12)	3	2	3	3	2
		2.6	2.5	2.6	2.5	2.4

Any other comments:

Signature: S.A.A

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Qn. No	1	2	3	4	5	6	7	8	9	10
Score	2.6	2.5	2.5	2.6	2.5	2.6	2.6	0.5	2.6	2.6

3.2.2 Record the attainment of the Course Outcomes of all courses with respect to set attainment levels (40)

Course Code	2019-2023				
	CO	Level –Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C101-HS8151	CO1	3	3	2.83	2.97
	CO2	3	3	2.64	2.93
	CO3	3	3	2.57	2.91
	CO4	3	3	2.69	2.94
	CO5	3	3	2.71	2.94
C102-MA8151	CO1	3	3	3	3.00
	CO2	2	3	2	2.64
	CO3	3	3	2.75	2.95
	CO4	0	3	2.8	2.48
	CO5	0	3	2.55	2.43
C103-PH8151	CO1	3	2	2.83	2.33
	CO2	3	2	2.64	2.29
	CO3	3	2	2.57	2.27
	CO4	3	2	2.69	2.30
	CO5	3	2	2.71	2.30
C104-CY8151	CO1	3	2	2.1	2.34
	CO2	3	2	2.22	2.36
	CO3	3	2	2.1	2.34
	CO4	3	2	2.3	2.38
	CO5	3	2	2.1	2.34
C105-GE8151	CO1	3	3	3	3.00
	CO2	3	3	2	2.80
	CO3	3	3	2.75	2.95
	CO4	3	3	2.8	2.96
	CO5	3	3	2	2.80
C106-GE8152	CO1	2	3	2.83	2.81
	CO2	1	3	2.64	2.61
	CO3	2	3	2.57	2.75
	CO4	2	3	2.69	2.78
	CO5	2	3	2.71	2.78
C107- GE8161	CO1	3	3	1	2.60
	CO2	3	3	2	2.80
	CO3	3	3	2	2.80
C108-BS8161	CO1	3	3	2.74	2.95
	CO2	3	3	2.59	2.92
	CO3	3	3	2.62	2.92

Course Code	2019-2023				
	CO	Level –Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C109-HS8251	CO1	3	3	2.66	2.93
	CO2	3	3	2.75	2.95
	CO3	3	3	2.55	2.91
	CO4	3	3	2.66	2.93
	CO5	3	3	2.5	2.90
C110-MA8251	CO1	3	3	3	3.00
	CO2	2	3	2	2.64
	CO3	3	3	2.75	2.95
	CO4	0	3	2.8	2.48
	CO5	0	3	2.55	2.43
C111-PH8252	CO1	3	3	2.46	2.89
	CO2	3	3	2.39	2.88
	CO3	3	3	2.31	2.86
	CO4	3	3	2.33	2.87
	CO5	3	3	2.33	2.87
C112-BE8255	CO1	3	1	2	1.52
	CO2	3	1	2	1.52
	CO3	3	1	2	1.52
	CO4	3	1	2	1.52
	CO5	3	1	2	1.52
C113-GE8291	CO1	3	3	2.81	2.96
	CO2	3	3	2.78	2.96
	CO3	3	3	2.85	2.97
	CO4	3	3	2.83	2.97
	CO5	3	3	2.88	2.98
C114-CS8251	CO1	2	2	1	1.80
	CO2	1	2	2	1.84
	CO3	2	2	2	2.00
	CO4	0	2	1	1.48
	CO5	0	2	3	1.88
C115-GE8261	CO1	3	3	2.74	2.95
	CO2	3	3	2.59	2.92
	CO3	3	3	2.62	2.92

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Course Code	2019-2023				
	CO	Level – Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C116-CS8261	CO1	3	3	2	2.80
	CO2	3	3	2	2.80
	CO3	3	3	1	2.60
C201-MA8351	CO1	1	3	1	2.28
	CO2	2	3	2	2.64
	CO3	2	3	2	2.64
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C202-CS8351	CO1	2	3	2.66	2.77
	CO2	2	3	2.73	2.79
	CO3	2	3	2.65	2.77
	CO4	2	3	2.72	2.78
	CO5	2	3	2.66	2.77
C203-CS8391	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C204-CS8392	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C205-EC8395	CO1	3	3	2	2.80
	CO2	3	3	1	2.60
	CO3	3	3	1	2.60
	CO4	3	3	1	2.60
	CO5	3	3	1	2.60

Course Code	2019-2023				
	CO	Level –Direct		Level - Indirect	CO Attainment
		Internal Assessment	University Assessment		
C206-CS8381	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
C207-CS8383	CO1	3	3	3	3
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C208-CS8382	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	2	2.8
C209-HS8381	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	1	2.6
C210-MA8402	CO1	1	3	1	2.28
	CO2	2	3	2	2.64
	CO3	2	3	2	2.64
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C211-CS8491	CO1	3	3	2.66	2.93
	CO2	3	3	2.73	2.95
	CO3	3	3	2.65	2.93
	CO4	3	3	2.72	2.94
	CO5	3	3	2.66	2.93
C212-CS8492	CO1	3	3	3	3
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	3	3

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Course Code	2019-2023				
	CO	Level –Direct		Level - Indirect	CO Attainment
		Internal Assessment	University Assessment		
C213-CS8451	CO1	3	1	3	2.36
	CO2	3	1	3	2.36
	CO3	3	1	3	2.36
	CO4	3	1	2	2.16
	CO5	3	1	3	2.36
C214-CS8493	CO1	2	3	2	2
	CO2	1	3	1	1.64
	CO3	2	3	2	2
	CO4	1	3	2	1.84
	CO5	1	3	1	1.64
C215-CS8494	CO1	2	3	2	2
	CO2	1	3	1	1.64
	CO3	2	3	2	2
	CO4	1	3	2	1.84
	CO5	1	3	1	1.64
C216-CS8481	CO1	3	3	2	2.8
	CO2	3	3	3	3
	CO3	3	3	2	2.8
C217-CS8461	CO1	2	3	2	2.64
	CO2	3	3	2	2.8
	CO3	2	3	2	2.64
C218-HS8461	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C301-MA8551	CO1	0	3	2.63	2.4
	CO2	0	3	2.64	2.4
	CO3	0	3	2.58	2.4
	CO4	0	3	2.55	2.4
	CO5	0	3	2.59	2.4

Course Code	2019-2023				
	CO	Level –Direct		Level - Indirect	CO Attainment
		Internal Assessment	University Assessment		
C302-CS8591	CO1	2	3	1	2.44
	CO2	0	3	2	2.32
	CO3	2	3	2	2.64
	CO4	1	3	1	2.28
	CO5	0	3	3	2.52
C303-EC8691	CO1	0	3	1	2.12
	CO2	0	3	2	2.32
	CO3	3	3	2	2.80
	CO4	2	3	3	2.84
	CO5	0	3	1	2.12
C304-CS8501	CO1	0	3	2.66	2.45
	CO2	1	3	2.73	2.63
	CO3	1	3	2.65	2.61
	CO4	0	3	2.72	2.46
	CO5	0	3	2.66	2.45
C305-CS8592	CO1	0	3	1	2.12
	CO2	0	3	1	2.12
	CO3	0	3	2	2.32
	CO4	0	3	1	2.12
	CO5	0	3	2	2.32
C306-OEC552	CO1	1	3	1	2.28
	CO2	0	3	2	2.32
	CO3	3	3	2	2.8
	CO4	1	3	1	2.28
	CO5	0	3	2	2.32

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Course Code	2019-2023				
	CO	Level - Direct		Level – Indirect	CO Attainment
		Internal Assessment	University Assessment		
C307-EC8681	CO1	3	3	2.8	2.96
	CO2	3	3	2.8	2.96
	CO3	3	3	2.8	2.96
C308-CS8582	CO1	3	3	3	3
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C309-CS8581	CO1	2	3	2.8	2.8
	CO2	2	3	2.9	2.82
	CO3	2	3	2.8	2.8
C310-CS8651	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	1	3	2	2.48
	CO4	1	3	1	2.28
	CO5	1	3	3	2.68
C311-CS8691	CO1	1	3	1	2.28
	CO2	1	3	2	2.48
	CO3	0	3	2	2.32
	CO4	0	3	1	2.12
	CO5	0	3	3	2.52
C312-CS8601	CO1	0	3	1	2.12
	CO2	0	3	2	2.32
	CO3	3	3	2	2.8
	CO4	1	3	1	2.28
	CO5	0	3	3	2.52
C313-CS8602	CO1	2	2	2.6	2.76
	CO2	2	2	2.6	2.76
	CO3	3	2	2.5	2.9
	CO4	1	2	2.5	2.58
	CO5	1	2	2.6	2.6

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Course Code	2019-2023				
	CO	Level – Direct		Level - Indirect	CO Attainment
		Internal Assessment	University Assessment		
C314-CS8603	CO1	1	1	3	1.4
	CO2	2	1	2	1.36
	CO3	2	1	2	1.36
	CO4	0	1	1	0.84
	CO5	3	1	3	1.72
C315-CS8075	CO1	0	2	1	1.48
	CO2	1	2	2	1.84
	CO3	3	2	2	2.16
	CO4	0	2	1	1.48
	CO5	2	2	3	2.2
C316-CS8661	CO1	3	3	2.6	2.92
	CO2	3	3	2.8	2.96
	CO3	3	3	2.5	2.9
C317-CS8662	CO1	3	3	2.8	2.96
	CO2	3	3	2.9	2.98
	CO3	3	3	2.8	2.96
C318- CS8611	CO1	3	3	2.6	2.92
	CO2	3	3	2.8	2.96
	CO3	3	3	2.5	2.9
C319-HS8581	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C401-MG8591	CO1	3	3	2	2.92
	CO2	3	3	1	2.72
	CO3	3	3	2	2.92
	CO4	3	3	2	2.92
	CO5	3	3	2	2.92
C402-CS8792	CO1	2	3	2.66	2.77
	CO2	3	3	2.73	2.95
	CO3	3	3	2.65	2.93
	CO4	3	3	2.72	2.94
	CO5	3	3	2.66	2.93

Course Code	2019-2023				
	CO	Level –Direct		Level - Indirect	CO Attainment
		Internal Assessment	University Assessment		
C403-CS8791	CO1	3	3	2	2.8
	CO2	1	3	2	2.48
	CO3	3	3	2	2.8
	CO4	0	3	2	2.32
	CO5	2	3	2	2.64
C404-OME752	CO1	3	2	1	2.6
	CO2	3	2	2	2.8
	CO3	3	2	2	2.8
	CO4	3	2	3	3
	CO5	3	2	2	2.8
C405-CS8091	CO1	0	3	2	2.32
	CO2	0	3	1	2.12
	CO3	2	3	1	2.44
	CO4	1	3	3	2.68
	CO5	0	3	2	2.32
C406-HX8001	CO1	3	3	2.6	2.92
	CO2	3	3	2.8	2.96
	CO3	3	3	2.5	2.9
C407-CS8711	CO1	3	3	3	3
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C408-IT8761	CO1	3	3	2.6	2.92
	CO2	3	3	2.8	2.96
	CO3	3	3	2.5	2.9

Course Code	2019-2023				
	CO	Level –Direct		Level - Indirect	CO Attainment
		Internal Assessment	University Assessment		
C409-GE8076	CO1	2	3	2.6	2.76
	CO2	2	3	2.6	2.76
	CO3	3	3	2.5	2.9
	CO4	2	3	2.5	2.74
	CO5	2	3	2.6	2.76
C410-CS8080	CO1	1	3	2.66	2.61
	CO2	2	3	2.73	2.79
	CO3	2	3	2.65	2.77
	CO4	2	3	2.72	2.78
	CO5	2	3	2.66	2.77
C411-CS8811	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	2	2.8

Course Outcome (CO), Programme Outcome (PO) and Programme Specific Outcome (PSO) attainment Calculation

CO Attainment – Internal Assessment Test (Direct)

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks.

Anjalai Ammal Mahalingam Engineering College, Kovilvenni.
Department of Computer Science and Engineering

Attainment Level	Description	Correlation Level
1	65% and above students scoring more than 50% of maximum marks in the relevant COs	Slight (1)
2	75% and above students scoring more than 50% of maximum marks in the relevant COs	Moderate (2)
3	85% and above students scoring more than 50% of maximum marks in the relevant COs	Substantial (3)

Internal Assessment Test I	
Year & Sem: III & VI	Section: A & B
CS351 - CS3691 - Internet Programming	
Date & Session of Examination: 21.04.23 & FN	
Name of the Faculty Member: Dr.J.Ganesh	
Designation : Assistant Professor	

Sl.No.	Register No.		Qn. No.	1	2	3	4	5	6	7	8	9	10	11(a)	11(b)	12(a)	12(b)	13(a)	13(b)	Mark Analysis					Marks(%)	Marks(100)
			CO	CO1	CO1	CO1	CO2	CO2	CO2	CO3	CO3	CO3	CO3	CO4	CO4	CO4	CO4	CO5	CO5	CO1	CO2	L1	L2	L3		
			BL	L1	L1	L1	L2	L3	L2	L1	L1	L1	L2	L2	L2	L2	L2	L2	L3	L3							
			Mark	2	2	2	2	2	2	2	2	2	2	10	10	10	10	10	10	10	52	28	10	40	24		
1	820419104002	ABITHARANI A		2	2	2	2	2	2	2	2			9	8			8			27	10	10	2	15	37	74
2	820419104003	ARUBVA T		2	2	2	2	2	2	0	2	2	2	9	9			8			30	14	10	4	10	44	88
3	820419104004	AJITH KUMAR P		2	2	2	2	2	2	2	1.5		2	8	8			6			26	11.5	9.5	4	10	37.5	75
4	820419104005	AKSHAYA G		2	2	2	2	2	2	2	2	2	2	9	9			8			30	16	10	4	10	48	97
5	820419104006	ALEX S		2	2	2	2	2	2	1	2	2	2	9	9			8			30	15	9	5	10	45	90
6	820419104007	ARIVAZHAGAN S		2	2	2	2	0	2	0	1	1	2	7	7			5			24	9	7	3	14	33	66
7	820419104008	ARIYAZHAGAR				2	2	2		0	1	0	1.5	7	7			5			18	5.5	3	2	12	24.5	51
8	820419104009	ASHFA SHERSINE S		2	2	2		2	2	1	2		2	9				7			19	12	9	3	9	31	62
9	820419104010	AUCHAVAR (SPORTS)		2	2	2	2	0	2	0	2	2	2	9			2	8			22	12	8	4	8	34	68
10	820419104011	BALAJI K		2	2	2	2	2	2	1	2	1	2	9	8			7			29	13	9	4	17	42	84
11	820419104012	BALAJI M		2	2	2	2	2	2	0	1	1	1	4			6	8			22	9	7	2	4	31	62
12	820419104013	DEEBU ROBITA E		2	2	2	2	2	2	2	2	2	2	9	9			8			30	16	10	6	10	48	97
13	820419104014	DEEPIKA G		2	2	2	2	2	2	1	2	2	1	9	9			6			30	12	9	4	10	45	90
14	820419104016	DESIKA T		2	2	2	2	1	2	1	2	2	2	9	7			6			27	13	9	5	10	40	80
15	820419104017	DHARSHINI J		2	2	2	2	2	2	1	2	2	2	9	9			7			30	14	9	5	10	44	88
16	820419104018	DHILIP KUMAR P		2	2	2	2		2	1	1		1	9	1			4			20	7	8	2	10	27	54
17	820419104019	DHIVYA V		2	2	2	2	2	2	2	2	2	2		8	9			7		30	13	10	6	10	45	90
18	820419104020	DINESHKUMAR U			2	2	2	2	2	0	2		1		8	1					19	3	6	1	8	27	44
19	820419104021	DIVYASREE B		2	2	2	1	2	2	2	2	1	0	9			8	6			29	11	10	3	8	40	80
20	820419104022	GOWTHAM G		2	2	2	2	2	2	2	2	2	2		9	9			7		30	15	10	6	10	41	90
21	820419104023	GURUHARAN S		1	1	2	2	2	2	1	1	0	1		9	4			5		25	8	6	2	15	31	62
22	820419104024	HARINI B		2		2	1	1	2	0	2	1			9				5		17	8	6	1	9	25	50
23	820419104025	JAPPAN . K		1	1	2	0	1	2	1	1	0	1		8	6			7		21	5	6	2	14	26	47
24	820419104026	JEEVITHA S		2	2	2	2	2	2	2	2	2	2		9				6		21	14	10	6	9	35	70
25	820419104027	JUHAIF AHAMED H		2	2	2	2	2	2	2	2	2	1		9		8	5			30	12	10	5	9	47	94
26	820419104028	KARTHIKEYAN A		2	2	2	2	2	2	2	2	2	2		8	8			6		28	14	10	8	10	42	84
27	820419104029	KEERTHIKA R		2	2	2	0	2	2	1	2	2	2		9	8			6		27	13	9	5	17	40	80
28	820419104030	MADHESH V		2	2	2	2	2	2	1	2		1.5		9						21	4.5	9	3	9	25.5	51
29	820419104031	MANIKANDAN R		2	2	2	2	2	2	0		1	1		8				5		20	5	6	2	8	35	70
30	820419104032	MANOJ KUMAR T		2	2	2	2		2	1	2		2		9	5			4		28	9	9	3	16	33	66
31	820419104033	MANOSHREE T		2	2	2	2	2	2	2	2	0	2		9	9			7		30	13	10	4	10	47	94
32	820419104034	MOHAMED THAHIR S		2	2	2	2	2	2	2	2	1	2		9	8			7		29	14	10	5	17	43	86
33	820419104035	MOHAMED YASARA		2	2	2	2	1	2	1	1		1		8			4	3		28	6	8	2	8	30	60
34	820419104036	MUBARAK J		2	2	2	2	2	2	2	2		1	9							21	5	10	3	8	36	72
35	820419104037	MUKIL I		2	2	2	2	2	2	2	2	2	2		9	7			6		28	14	10	6	10	42	84
36	820419104038	MUTHULAKSHMUM		2	2	2	2	2	2	1	2	2	2		9	8			7		29	14	9	5	17	45	86
37	820419104039	NANDHINI V		2	2	2	2	2	2	2	2	2	2		9	9			8		30	16	10	6	10	46	97
38	820419104040	NATHIRAM		2	2	2	2		2						5						15	2	8	0	5	17	34
39	820419104041	NAVEEN .K		2	2	2	1	2	2	1	2	0	2								11	5	9	3	10	16	32
40	820419104042	NAVEENKUMAR G		2	2	2	2	0	2	1	2	2	1		9	5			7		28	11	9	4	14	13	70
41	820419104043	NIRANJAN M		2	2	2	0	2	2	1	2	2	1		8	9			6		26	12	9	4	10	38	76
42	820419104044	NISHANTHINI V		2	2	2	2	2	2	1	2	2	2		9	9			7		30	14	9	5	10	44	88
43	820419104045	NITHISH S		2	2	2	1		2	1	2		1		2	7			7		18	9	10	2	9	27	54
44	820419104046	NITHYASHREE R		2	2	2	2	2	2	2	2	2	2		9	9			6		30	14	20	6	10	44	88
45	820419104047	NIVEDHA .K		2	2	2	2	2	2	1	2	2	2		9	9			8		30	15	22	5	10	45	90
46	820419104048	PEARARULSELVI S		2	2	2	2	2	2	2	2	2	2		9	9			8		30	16	22	6	10	46	92
47	820419104049	PRASANNA S		1	2	2	2	2	2	2	2	0	1		5				4		16	9	17	3	3	25	50
48	820419104050	PRAVIN A		2	2	2	2	2	2	1	2	0	1		9	9			6		30	10	20	2	10	40	80
49	820419104051	PRITHIVANGHADEVI		2	2	2	2	2	2	2	2	2	2		9	9			8		30	16	22	6	10	48	97
50	820419104053	RAMYA S		2	2	2	2	2	2	1	2	2	2		8	9			2		30	9	16	5	10	39	78

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.
Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

51	820419104054	RAMKUMAR R	2	2	2	1	2	2	1	2	0	1		5	1		3		21	8	10	2	00	30	80
52	820419104055	SAKTHI GANESH M	1		0		1	2		2							2		4	4	8	0	8	8	16
53	820419104056	SAMYUKTHASRI R M	2	2	2	2	2	2	1	2	2	1		9	9		6		30	12	20	4	16	42	84
54	820419104057	SANMATHI R	2	2	2	2	2	2	2	2	2	2		9	9		8		30	16	22	6	28	46	92
55	820419104058	SANTHA KUMAR P			2	2	2	2	2	2	0	1		9		8	3		25	8	21	3	9	33	86
56	820419104059	SANTHOSHINI M	2	2	2	2	2	2	2	2	2	2		9	9		9		30	17	23	6	28	47	94
57	820419104060	SANTHOSH KUMAR R	1	1	1	2	2	2	2	2	0	1		9	6		2		24	7	15	3	13	31	62
58	820419104061	SARANYA R	2	2	2	2	2	2	2	2	2	2		9	9		6		30	14	20	6	26	44	88
59	820419104062	SARASWATHI M	2	2	2	2	2	2	2	2	2	2		9	7		8		28	16	22	6	28	44	88
60	820419104063	SARAVANAN M	2	2	2	2		2	1	2	0			7					17	3	12	1	7	20	40
61	820419104064	SATHYA JAYASREE S	2	2	2	2	2	2	2	2	2	2		9	9		8		30	16	22	6	28	46	92
62	820419104065	SENTHIL RAJ R	2	2	2		1	2		2		1		7			6		16	5	17	1	7	23	50
63	820419104066	SHALINI S	2	2	2	2	2	2	2	2	2	2		9	9		7		30	17	21	6	27	47	90
64	820419104068	SIVANANTHINI R	2	2	2	2	2	2	2	2	2	2		9	9		6		30	14	20	6	26	44	88
65	820419104069	SIVARANJAN K	1	1	2	2	2	2		2	0	1		7	7		3		24	8	17	1	10	27	64
66	820419104070	SOUNDHARYA P	2	2	2	2	2	2	1	2	2	2		9	9		7		30	14	21	5	26	44	88
67	820419104071	SRINIVAS P R	2	2	2	2	2	2	1	2	0	1		9	9		6		30	10	20	2	24	40	80
68	820419104072	SRIVIDYASRI R	2	2	2	2	2	2	2	2	2	2		9	7		7		28	13	21	6	25	41	86
69	820419104073	SUBASRI D R	2	2	2	2	2	2	2	2	2	2		9	7		6		28	14	20	6	26	42	84
70	820419104074	SUBASRI M	2	2	2	2	2	2	2	2	2	2		9	9		8		30	16	22	6	28	46	92
71	820419104075	SUDHARSAN S	2	2	2	2	2	2	2	2	2	2		7	9		6		28	14	20	6	26	42	84
72	820419104076	SUVARSHINI T	2	2	2	2	1	2	2	2	1	2		9	6		6		28	13	19	5	24	41	87
73	820419104077	TAMIL PRABHA R	2	2	2	2	2	2	2	2	2	2		9	9		6		30	14	20	6	26	44	88
74	820419104078	VARSHAVI P	2	2	2	2	2	2	2	2	2	2		9	9		6		30	14	20	6	26	44	88
75	820419104079	VASANTH R	1	1	1	2	2	2	1	2	0	1		8	7		6		28	10	17	2	15	34	69
76	820419104080	VEERENTHIRAN S	2	2	2	2	2	2	2	2	2	2		9	9		6		26	14	20	6	26	40	80
77	820419104081	VENKATESH K	2	2	2	2	2	2	1	2	2	2		9	9		3		30	10	17	3	10	30	80
78	820419104082	VENKATASUBRAMANIAN S	2	2	2	2	2	2	2	2	2	2		8	9		3		28	13	18	6	27	42	84
79	820419104083	VIGNESH .T	2	1	2	2	2	2		2	0	1		8	8		3		27	6	16	1	10	33	80
80	820419104084	VIRTHRA P	2	2	2	2	2	2	2	2	1	2		9	9		8		30	15	22	5	28	49	90

81	820419104085	VINOTHKUMAR M	2	2	2	2	2	1	2	2	1	2		9	9		8		30	16	22	6	28	46	92
82	820419104086	VIJAYAKUMAR K	2	2	2	2	2	2	2	2	0	1		9	9		5		30	10	19	3	18	40	80
83	820419104501	SUNTHILKUMAR R	2	2	2	0	2	2	2	2	0	1					3		19	8	13	3	9	18	36
84	820419104502	HIRAM M	2	2	2	0	2	2	2	2	0	1		2					17	5	12	3	7	17	34
		No. of students obtained more than 50% marks in relevant CO																	79	66	1131	340	1147		
		Percentage of students obtained more than 50% marks in relevant CO																	84	70	14	4	14	← Class average	
		Correlation level achieved																	3	2					

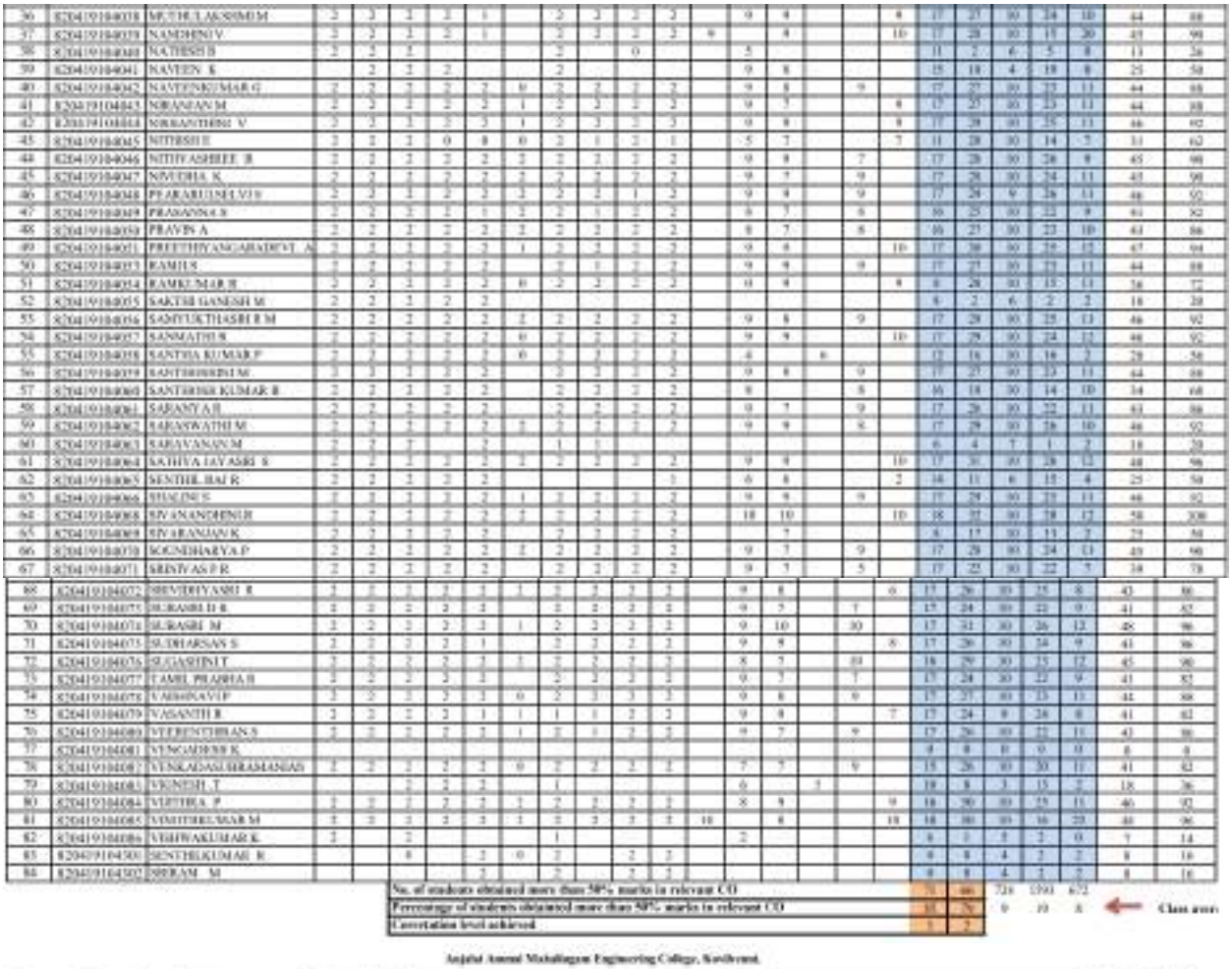
Anjalai Ammal Mahalingam Engineering College, Kovilvenni.

Department of Computer Science and Engineering
Assessment Internal Assessment Test II
Year & Sem. III & VI **Section: A & B**
CS881 - CS8651 - Internet Programming
Date & Session of Examination: 18.05.22 & AN
Name and Designation of Faculty Member: Dr.J.Ganesh., AP

Attainment Level	Description	Correlation Level
1	65% and above students scoring more than 50% of maximum marks in the relevant COs	Slight (1)
2	70% and above students scoring more than 50% of maximum marks in the relevant COs	Moderate (2)
3	85% and above students scoring more than 50% of maximum marks in the relevant COs	Substantial (3)

Sl.No.	Register No.	Name	Qn. No.	1	2	3	4	5	6	7	8	9	10	11(a)	11(b)	12(a)	12(b)	13(a)	13(b)	Mark Analysis					Marks(<50)	Marks(>50)
			CO	CO2	CO2	CO1	CO2	CO3	CO3	CO5	CO3	CO3	CO3	CO3	CO2	CO2	CO1	CO5	CO3	CO3	CO1	CO2	L1	L2	L3		
			BL	L3	L3	L3	L2	L3	L2	L3	L3	L3	L2	L3	L3	L2	L2	L2	L3	L3	L3					
			Mark	2	2	2	2	2	2	2	2	2	2	10	10	10	10	10	10	28	12	10	10	12		
1	820419104002	ABITHARANI A		2	2	2	2	2		2	2	2	2		9	9				8	17	13	10	24	10	44	89
2	820419104003	ARJERVA J		2	2	2	2	2		2		2	2		8	6					17	14	8	19	2	31	62
3	820419104004	ATHIKUMAR .P		2	2	2	2	2		2	2	2	2		8	8				7	16	13	10	21	9	41	82
4	820419104005	AKSHAYA G		2	2	2	2	2		2		2	2		9	7				8	17	13	8	20	10	40	80
5	820419104006	ALEX S		2	2	2	2	2	2	2		2	2		8	5				9	16	24	8	19	13	40	80
6	820419104007	ARIVAZHAGAN S		2	2	2	2	2	2	2	1	2	1		6	6				7	16	23	8	16	9	37	74
7	820419104008	ARIVAZHAGI R		2	2	2	2	2	1	1		1	1		8	6				6	16	18	7	28	8	54	88
8	820419104009	ASHIFA SHERENUS		2	2	2	2	2	2	2	2	2	2		9	7				8	17	27	10	29	10	44	89
9	820419104010	ATCHAYA R (SPORTS)		2	2	2	2	2		2	2	2	2		8	9				8	17	29	10	28	7	41	83
10	820419104011	BALAJI K		2	2	2	2	2	2	2	2	2	2		9	9			10		17	31	10	36	12	48	96
11	820419104012	BALAJI M		2	2	2	2	2		2	2	2	2		7	6			8		10	12	10	14	8	32	64
12	820419104013	DHANU SUMIYA E		2	2	2	2	2	2	2	2	2	2		10	9				10	18	31	10	27	13	49	98
13	820419104014	DEEPIKA G		2	2	2	2	2	2	2	2	2	2		8	8			8		17	28	10	25	10	45	90
14	820419104016	DESIKA T		2	2	2	2	2	1	2	2	2	2		9	8				10	17	29	10	24	12	46	92
15	820419104017	DHARSHINI J		2	2	2	2	2	0	2	2	2	2		9	8				6	17	28	10	23	8	41	82
16	820419104018	DILIPKUMAR P		2	0	2	2			1	2	2	2	2		2					8	7	3	7	2	19	38
17	820419104019	DIVYA V		2	2	2	2	2	2	2	2		2		9	7		7			17	28	8	24	9	41	82
18	820419104020	DINESHKUMAR U		2	2	2	2	1	2	1	1	1	2		6		2	2			14	12	8	15	3	26	52
19	820419104021	DIVYASREE R		2	2	1	2	2		2	2	2	2		9	7					16	17	8	22	7	53	86
20	820419104022	GOWTHAM E																			0	0	0	0	0	0	0
21	820419104023	GURUHARAN S		2	2	2	2	2		2	2	2	2		7	7		6			13	23	10	20	8	38	76
22	820419104024	HARISH R		2		2	2				1	2	2		6					2	11	7	2	11	3	19	38
23	820419104025	JAYAPPAN .K		2	2	2	1	2	0	1	1	2	2		8	8		8			13	24	9	20	10	39	78
24	820419104026	JEEVITHA S		2	2	2	2	2		2	2	2	2		9	8				8	17	29	10	23	8	41	82
25	820419104027	JUHAIF AHAMED H		2	2	2	2	2	2	2	2	2	2		9	9		8			17	29	10	26	11	46	92
26	820419104028	KARTHIKEYAN A		2	2	2	2	2		2	2	2	2		9	8				8	17	26	10	25	9	43	86
27	820419104029	KEERTHIKA R		2	2	2	2	2		2	2	2	2		8	8		8			16	28	10	22	10	42	84
28	820419104030	MADHUSUV																			0	0	0	0	0	0	0
29	820419104031	MANIKANDAN .R		2	2	2	2						2		8	8				8	16	16	8	20	6	52	84
30	820419104032	MANOJ KUMAR T		2	2	1	2	2		2	2	2	2		8	6		7			13	23	9	20	8	38	76
31	820419104033	MANOHREE T		2	2	2	2	2		2	2	2	2		9	10					17	28	10	25	2	37	74
32	820419104034	MOHAMED THAHIR S		2	2	2	2	2	2	2	2	2	2		10	8		10			14	29	10	20	12	46	96
33	820419104035	MOHAMED YASAR A			2	2	2			2		2	2		2						8	6	8	6	0	14	28
34	820419104036	MUBARAK J				2							0		6						8	0	2	6	0	8	16
35	820419104037	MUKIL I		2	2	2	2	1		2	2	2	2		8	7				7	16	23	10	21	8	39	78

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.
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36	820419104038	MUTHULAKSHMI M	2	2	2	2	1		2	2	2	2		9	8			8	17	27	30	24	10	44	88
37	820419104039	NANDHINI V	2	2	2	2	1		2	2	2	2	0		8			10	17	28	30	13	20	43	98
38	820419104040	NATHESH B	2	2	2				2		0			5					11	7	6	5	8	13	26
39	820419104041	NAVEEN K		2	2	2			2					9	8				15	18	4	18	8	25	50
40	820419104042	NAVEENKUMAR G	2	2	2	2	2	0	2	2	2	2		9	8		9		17	27	30	22	11	44	88
41	820419104043	NIRANJAN M	2	2	2	2	2	1	2	2	2	2		9	7			8	17	27	30	23	11	44	88
42	820419104044	NIRANJTHINI V	2	2	2	2	2	1	2	2	2	2		9	8			8	17	28	30	25	11	46	92
43	820419104045	NITHESH E	2	2	2	0	0	0	2	1	2	1		5	7			7	11	28	30	14	7	31	62
44	820419104046	NITHYASHREE B	2	2	2	2	2	2	2	2	2	2		9	8		7		17	28	30	28	9	45	90
45	820419104047	NIVEDHA K	2	2	2	2	2	2	2	2	2	2		9	7		9		17	28	30	24	11	45	90
46	820419104048	PRABARUNI M.V.V.V	2	2	2	2	2	2	2	2	1	2		9	8		9		17	29	9	28	11	48	92
47	820419104049	PRAVANNA.S	2	2	2	2	1	2	2	1	2	2		8	7		8		16	25	30	22	9	61	92
48	820419104050	PRAVIN A	2	2	2	2	2	2	2	2	2	2		8	7		8		16	27	30	23	10	63	86
49	820419104051	PREETHIYANGABHADEVI A	2	2	2	2	2	1	2	2	2	2		9	8			10	17	30	30	29	17	47	94
50	820419104053	RAMI.S	2	2	2	2	2		2	1	2	2		9	8		9		17	27	30	27	11	44	88
51	820419104054	RAMKUMAR.B	2	2	2	2	2	0	2	2	2	2		0	8			8	8	28	30	15	11	56	77
52	820419104055	SAKTHI GANESH M	2	2	2	2	2												8	2	6	2	2	18	28
53	820419104056	SANTUKTHASRI R M	2	2	2	2	2	2	2	2	2	2		9	8		9		17	28	30	25	13	46	92
54	820419104057	SANMATHI S	2	2	2	2	2	0	2	2	2	2		9	9			10	17	29	30	24	13	48	92
55	820419104058	SANTHA KUMAR P	2	2	2	2	2	0	2	2	2	2		6		6			12	16	30	16	2	28	56
56	820419104059	SANTHOSHINI M	2	2	2	2	2		2	2	2	2		9	8		9		17	27	30	23	11	44	88
57	820419104060	SANTOSH KUMAR R	2	2	2	2	2		2	2	2	2		8			8		16	18	30	14	10	34	68
58	820419104061	SARANYA H	2	2	2	2	2		2	2	2	2		9	7		9		17	26	30	22	11	43	86
59	820419104062	SARASWATHI M	2	2	2	2	2	2	2	2	2	2		9	9		8		17	29	30	28	10	48	92
60	820419104063	SARAVANAN M	2	2	2		2		1	1									6	4	7	1	2	18	28
61	820419104064	SATHYA JAYASRI S	2	2	2	2	2	2	2	2	2	2		9	8			10	17	30	30	28	12	48	96
62	820419104065	SENTHIL RAJ R	2	2	2	2	2					1		6	8			2	16	11	6	15	4	25	50
63	820419104066	SIVACINI S	2	2	2	2	2	1	2	2	2	2		9	9		9		17	29	30	23	11	46	92
64	820419104068	SIVANANTHINI B	2	2	2	2	2	2	2	2	2	2		10	10			10	18	32	30	28	17	58	108
65	820419104069	SIVARANJAN K	2	2	2	2	2		2	2	2	2			7				6	17	30	13	2	29	58
66	820419104070	SOUNDHARYA P	2	2	2	2	2	2	2	2	2	2		9	7		9		17	29	30	24	13	49	98
67	820419104071	SRINIVAS P R	2	2	2	2	2		2	2	2	2		9	7		5		17	22	30	22	7	38	78
68	820419104072	SRIVIDHYAVATHI R	2	2	2	2	2	1	2	2	2	2		9	8			6	17	26	30	25	8	43	86
69	820419104075	SUBASREE B	2	2	2	2	2		2	2	2	2		9	7		7		17	24	30	22	9	41	82
70	820419104074	SUBASRI M	2	2	2	2	2	1	2	2	2	2		9	10		10		17	31	30	26	12	48	96
71	820419104075	SUDHARSAN S	2	2	2	2	1		2	2	2	2		9	9			8	17	26	30	24	9	41	86
72	820419104076	SUGASINI T	2	2	2	2	2	1	2	2	2	2		8	7		10		18	29	30	25	12	45	90
73	820419104077	TAMIL PRABHA B	2	2	2	2	2		2	2	2	2		9	7		7		17	24	30	22	9	41	82
74	820419104078	VARSHAVI P	2	2	2	2	2	0	2	2	2	2		9	8		9		17	27	30	23	11	44	88
75	820419104079	VASANTH B	2	2	2	2	1	1	1	1	2	2		9	9			7	17	24	8	28	8	41	82
76	820419104080	VETRENTHIRAN S	2	2	2	2	2	1	2	1	2	2		9	7		9		17	26	30	22	11	43	86
77	820419104081	VENGADESH K												9	8	0	9	0	9	8	0	9	0	8	8
78	820419104082	VENKADASUBRAMANIAN	2	2	2	2	2	0	2	2	2	2		7	7		9		15	26	30	20	11	41	82
79	820419104083	VICNESH T			2	2	2		1					6		7			10	8	3	15	2	18	36
80	820419104084	VIJITHA P	2	2	2	2	2	2	2	2	2	2		8	9		9		18	30	30	25	11	46	92
81	820419104085	VINITHKUMAR M	2	2	2	2	2	2	2	2	2	2	10		8		10		18	30	30	16	23	46	96
82	820419104086	VISHWAKUMAR K	2		2				1					2					6	1	2	2	0	7	14
83	820419104500	SENTHILKUMAR R			0		2	0	2		2	2							8	8	4	2	2	8	16
84	820419104505	SHRIRAM M					2		2		2	2							8	8	4	2	2	8	16
		No. of students obtained more than 50% marks in relevant CO																	71	106	720	1390	672		
		Percentage of students obtained more than 50% marks in relevant CO																	68	76	9	10	8	← Class aver	
		Correlation level achieved																	2	2					

Anjalai Ammal Mahalingam Engineering College, Kovilvenni.

Department of Computer Science and Engineering

Assessment Internal Assessment Test III

Year & Sem: III & VI Section: A & B

C404 -(CS8651 - Internet Programming

Date & Session of Examination: 30.08.22 & AN

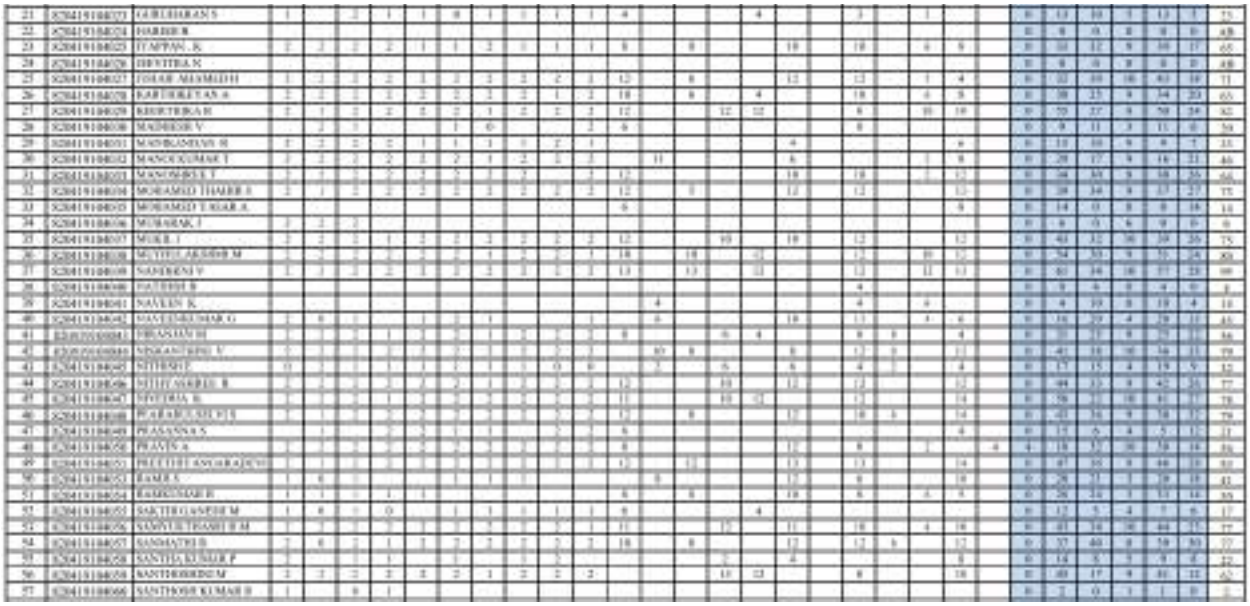
Name and Designation of Faculty Member: Dr.J.Ganesh, Assistant Professor

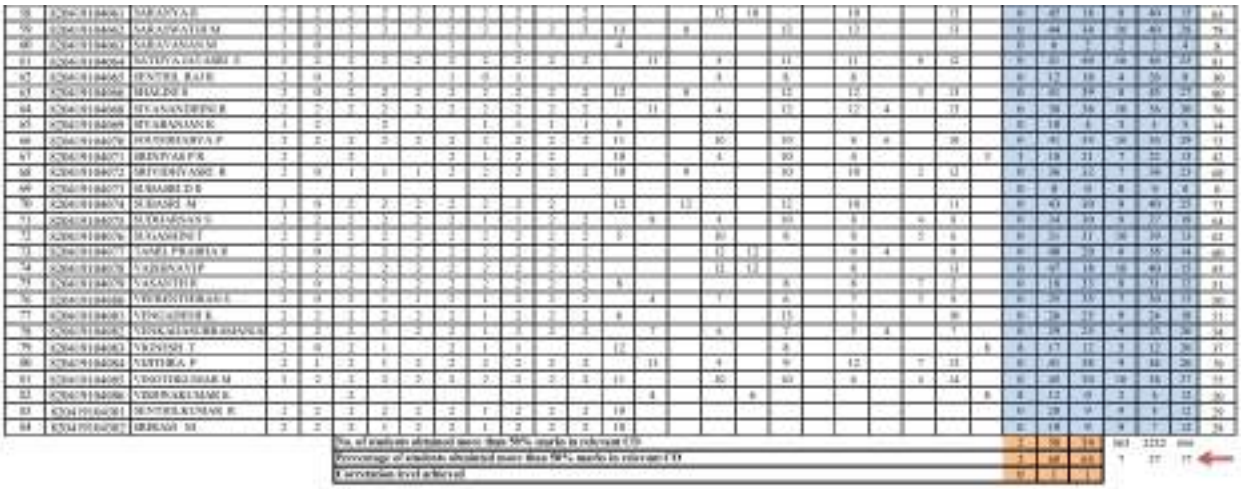
Assessment Level	Description	Correlation Level
3	85% and above students scoring more than 50% of maximum marks in the relevant COs	Highly (3)
2	75% and above students scoring more than 50% of maximum marks in the relevant COs	Moderate (2)
1	65% and above students scoring more than 50% of maximum marks in the relevant COs	Substantial (1)

Sl.No	Register No.	Name	Q.No	1	2	3	4	5	6	7	8	9	10	11(a)	11(b)	12(a)	12(b)	13(a)	13(b)	14(a)	14(b)	15(a)	15(b)	16(a)	16(b)	Mark Analysis						Grading
			CO	CO4	CO4	CO4	CO4	CO4	CO5	CO5	CO5	CO5	CO5	CO4	CO4	CO4	CO4	CO5	CO5	CO5	CO5	CO5	CO5	CO5	CO5							
			BL	L3	L3	L3	L2	L3	L3	L3	L2	L3	L3	L3	L3(or)	L3	L3	L2	L2	L3	L2	L3	L2	L3	L3							
			Mark	2	2	2	2	2	2	2	2	2	2	13	13	13	13	13	12	13	12	13	13	15	15							
1	820419104002	ABITHARANI A		2	2	2	2	2	2	2	2	2	2	13				10				10		11		0	45	15	0	15	15	67
2	820419104003	ADHAVAN J		2	2	2	2	2	2	2	2	2	2	13				10	11		2			6		0	50	11	0	10	15	63
3	820419104004	AKSHAYAKUMAR P		2	2	2	2	2	2	2	2	2	2	10					10			8		6		0	38	13	0	10	15	51
4	820419104005	ANJANA V.A.U		2	2	2	2	2	2	2	2	0	2	13				12				9		14		0	48	15	0	15	15	63
5	820419104006	ANU P.S.S		2	2	2	2	2	2	2	2	2	2	13		13		12				9		13		0	48	15	0	15	15	63
6	820419104007	ANUVARSHANA S																								0	0	0	0	0	0	0
7	820419104008	ARUN KUMAR B	0		0	1	1	1	1	1	1	0			0		0		0		0		0	0		0	23	7	0	15	15	60
8	820419104009	ASHIFA SHEREEN S	2	2	2	2	2	2	2	2	2	2	12			12						12				0	50	21	0	19	20	74
9	820419104010	ATUNAYA B (SPORTS)	2	2	2	2	2	2	2	2	2	2	12					12						14		0	48	22	0	22	20	92
10	820419104011	BALAJI K	2	2	2	2	2	2	2	2	2	2	10		10			12		12	8			10		0	48	19	0	22	20	91
11	820419104012	BALAJI M	0	0	1	1	1	1	1	1	1	1	6		6			8				9		7	8	0	38	10	3	19	10	41
12	820419104013	DHEERU SUBITSAA	2	2	2	2	2	2	2	2	2	2	13			11	11		11			13		12		0	50	16	0	10	20	97
13	820419104014	DHIPIKA G	2	2	2	2	2	2	2	2	2	2	10		10			8		9		10		11		0	42	16	0	10	20	94
14	820419104016	DHONKA T																								0	0	0	0	0	0	0
15	820419104017	DHANUSHNU J	2	2	2	2	2	2	2	2	2	2	11		10			10		12				11		0	50	15	0	10	20	95
16	820419104018	DHILIP KUMAR P																								0	0	0	0	0	0	0
17	820419104019	DHIVYA V	2	2	2	2	2	2	2	2	2	2	12		10			10		12				12		0	46	15	0	19	20	90
18	820419104020	DINESHKUMAR G	1	0	1	1		1	1		1	1	2							10						0	5	10	3	15	2	35
19	820419104021	DIVYADHARANI K	1		2	1	2	2		1			12					10		9				6		0	24	10	0	10	20	64
20	820419104022	GOWTHAMI E																								0	0	0	0	0	0	0

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Anjalai Ammal Mahalingam Engineering College, Kovilvenni.
Department of Computer Science and Engineering

Consolidated Report: Internal Assessment Test I,II & III
Year & Sem. III & VI Section: A & B
C601 – CS8651 – INTERNET PROGRAMMING
Name and Designation of Faculty Member: Dr.J.Ganesh, Assistant Professor

Attainment Level	Description	Correlation Level
1	65% and above students scoring more than 50% of maximum marks in the relevant COs	Slight (1)
2	75% and above students scoring more than 50% of maximum marks in the relevant COs	Moderate (2)
3	85% and above students scoring more than 50% of maximum marks in the relevant COs	Substantial (3)

Sl.No.	Register No.	Name		Test I		Test II		Test III			Total Marks				
			CO	CO1	CO2	CO2	CO3	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5
			Mark	52	28	28	52	15	90	75	52	56	77	90	75
1	820419104002	ABITHARANI A		27	10	17	27	0	45	22	27	27	27	45	22
2	820419104003	ABURVA J		30	14	17	14	0	52	11	30	31	14	66	11
3	820419104004	AJITH KUMAR .P		26	11.5	16	25	0	26	30	26	27.5	25	51	30
4	820419104005	AKSHAYA.G		30	16	17	23	0	48	16	30	33	23	71	16
5	820419104006	ALEX.S		30	15	16	24	0	52	18	30	31	24	76	18
6	820419104007	ARIVAZHAGAN S		24	9	14	23	0	0	0	24	23	23	23	0
7	820419104008	ARIVAZHAGI R		18	7.5	16	18	0	23	27	18	23.5	18	41	27
8	820419104009	ASHIFA SHERENE.S		19	12	17	27	0	33	21	19	29	27	60	21
9	820419104010	ATCHAYA R (SPORTS)		22	12	17	24	0	48	22	22	29	24	72	22

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11	820419104012	BALAJI M	22	9	10	22	0	28	19	22	19	22	50	19
12	820419104013	DEEBU RUBIYA E	30	16	18	31	0	61	36	30	34	31	92	36
13	820419104014	DEEPIKA G	30	12	17	28	0	42	36	30	29	28	70	36
14	820419104016	DESIKA T	27	13	17	29	0	0	0	27	30	29	29	0
15	820419104017	DHARSHINI.J	30	14	17	24	0	43	32	30	31	24	67	32
16	820419104018	DHILIP KUMAR.P	20	7	8	7	0	0	0	20	15	7	7	0
17	820419104019	DHIVYA V	30	15	17	24	0	46	32	30	32	24	70	32
18	820419104020	DINESHKUMAR.U	19	3	14	12	0	5	13	19	17	12	17	13
19	820419104021	DIVYASREE R	29	11	16	17	0	24	19	29	27	17	41	19
20	820419104022	GOWTHAM E	30	15	0	0	0	0	0	30	15	0	0	0
21	820419104023	GURUHARAN S	23	8	15	23	0	13	10	23	23	23	36	10
22	820419104024	HARISH B	17	8	12	7	0	0	0	17	20	7	7	0
23	820419104025	IYAPPAN . K	21	5	15	24	0	33	32	21	20	24	57	32
24	820419104026	JEEVITHA N	21	14	17	24	0	0	0	21	31	24	24	0
25	820419104027	JUHAIF AHAMED H	30	12	17	29	0	32	39	30	29	29	61	39
26	820419104028	KARTHIKEYAN.A	28	14	17	26	0	38	25	28	31	26	64	25
27	820419104029	KEERTHIKA R	27	13	16	26	0	55	27	27	29	26	81	27
28	820419104030	MADHESH V	21	4.5	0	0	0	9	11	21	4.5	0	9	11
29	820419104031	MANIKANDAN R	20	5	16	16	0	15	10	20	21	16	31	10
30	820419104032	MANOJ KUMAR T	24	9	15	23	0	29	17	24	24	23	52	17
31	820419104033	MANOSHREE T	30	13	17	20	0	34	30	30	30	20	54	30
32	820419104034	MOHAMED THAHIR S	29	14	18	30	0	39	34	29	32	30	69	34
33	820419104035	MOHAMED YASAR.A	24	6	8	6	0	14	0	24	14	6	20	0
34	820419104036	MUBARAK J	21	5	8	0	0	6	0	21	13	0	6	0
35	820419104037	MUKIL I	28	14	16	23	0	43	32	28	30	23	66	32
36	820419104038	MUTHULAKSHMI.M	29	14	17	27	0	54	30	29	31	27	81	30
37	820419104039	NANDHINI V	30	16	17	28	0	61	34	30	33	28	89	34
38	820419104040	NATHISH B	15	2	11	2	0	0	4	15	13	2	2	4
39	820419104041	NAVEEN K	11	5	15	10	0	4	10	11	20	10	14	10
40	820419104042	NAVEENKUMAR G	24	11	17	27	0	16	29	24	28	27	43	29
41	820419104043	NIRANJAN M	26	12	17	27	0	31	25	26	29	27	58	25
42	820419104044	NISHANTHINI V	30	14	17	29	0	41	38	30	31	29	70	38
43	820419104045	NITHISH E	18	9	11	20	0	17	15	18	20	20	17	15
44	820419104046	NITHYASHREE R	30	14	17	28	0	44	33	30	31	28	44	33
45	820419104047	NIVEDHA K	30	15	17	28	0	56	22	30	32	28	56	22
46	820419104048	PEARARULSELVI S	30	16	17	29	0	43	36	30	33	29	43	36
47	820419104049	PRASANNA S	16	9	16	25	0	15	6	16	25	25	15	6
48	820419104050	PRAVIN A	30	10	16	27	4	18	32	30	26	31	18	32
49	820419104051	PREETHIYANGARADEV	30	16	17	30	0	47	36	30	33	30	47	36
50	820419104053	RAMJI.S	30	9	17	27	0	20	21	30	26	27	20	21
51	820419104054	RAMKUMAR R	21	9	8	28	0	26	24	21	17	28	26	24
52	820419104055	SAKTHI GANESH M	4	4	8	2	0	12	5	4	12	2	12	5
53	820419104056	SAMYUKTHASRI R M	30	12	17	29	0	43	34	30	29	29	43	34
54	820419104057	SANMATHI R	30	16	17	29	0	37	40	30	33	29	37	40
55	820419104058	SANTHA KUMAR.P	25	8	12	16	0	14	8	25	20	16	14	8
56	820419104059	SANTHOSHINI M	30	17	17	27	0	45	17	30	34	27	45	17
57	820419104060	SANTHOSH KUMAR R	24	7	16	18	0	2	0	24	23	18	2	0
58	820419104061	SARANYA R	30	14	17	26	0	45	18	30	31	26	45	18
59	820419104062	SARASWATHI M	28	16	17	29	0	44	34	28	33	29	44	34
60	820419104063	SARAVANAN.M	17	3	6	4	0	6	2	17	9	4	6	2
61	820419104064	SATHYA JAYASRI S	30	16	17	31	0	41	40	30	33	31	41	40
62	820419104065	SENTHIL RAJ R	16	9	14	11	0	12	18	16	23	11	12	18

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63	820419104066	SHALINI S	30	15	17	29	0	41	39	30	32	29	41	39
64	820419104068	SIVANANDHINI.R	30	14	18	32	0	38	38	30	32	32	38	38
65	820419104069	SIVARANJAN K	24	8	8	17	0	10	4	24	16	17	10	4
66	820419104070	SOUNDHARYA P	30	14	17	28	0	41	34	30	31	28	41	34
67	820419104071	SRINIVAS P R	30	10	17	22	3	18	21	30	27	25	18	21
68	820419104072	SRIVIDHYASRI R	28	15	17	26	0	36	32	28	32	26	36	32
69	820419104073	SUBASRI D R	28	14	17	24	0	0	0	28	31	24	0	0
70	820419104074	SUBASRI M	30	16	17	31	0	43	30	30	33	31	43	30
71	820419104075	SUDHARSAN S	28	14	17	26	0	34	30	28	31	26	34	30
72	820419104076	SUGASHINI T	28	13	16	29	0	31	31	28	29	29	31	31
73	820419104077	TAMIL PRABHA R	30	14	17	24	0	40	20	30	31	24	40	20
74	820419104078	VAISHNAVI P	30	14	17	27	0	47	18	30	31	27	47	18
75	820419104079	VASANTH R	24	10	17	24	0	18	33	24	27	24	18	33
76	820419104080	VEERENTHIRAN.S	26	14	17	26	0	25	25	26	31	26	25	25
77	820419104081	VENGADESH K	30	10	0	0	0	26	25	30	10	0	26	25
78	820419104082	VENKADASUBRAMANI	29	13	15	26	0	29	25	29	28	26	29	25
79	820419104083	VIGNESH .T	27	6	10	8	8	17	12	27	16	16	17	12
80	820419104084	VIJITHRA P	30	15	16	30	0	41	38	30	31	30	41	38
81	820419104085	VINOTHKUMAR M	30	16	18	30	0	45	30	30	34	30	45	30
82	820419104086	VISHWAKUMAR K	30	10	6	1	8	12	0	30	16	9	12	0
83	820419104301	SENTHILKUMAR R	10	8	0	8	0	20	9	10	8	8	20	9
84	820419104302	SRIRAM M	12	5	0	8	0	19	9	12	5	8	19	9
ined more than 50% marks in relevant CO										79	68	52	56	54
nted more than 50% marks in relevant CO										94.05	80.95	61.9	66.67	64.29
Corretation level achieved										3	3	1	1	1

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CO Attainment Level– End Semester Examination

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks.

Faculty Name :	Dr.J.Ganesh
Subject Code :	CB651
Subject Name :	INTERNET PROGRAMMING
Academic Year :	2021-2022 (EVEN)
Semester :	VI
Branch :	III CSE A& B

Sl. No.	Register No.	Name of the Student	Marks scored ES Grade
2	820419104002	ABITHARANI A	A
3	820419104003	ABURVA J	B
4	820419104004	AJITH KUMAR .P	B
5	820419104005	AKSHAYA.G	B
6	820419104006	ALEX.S	B
7	820419104007	ARIVAZHAGAN S	B
8	820419104008	ARIVAZHAGI R	B
9	820419104009	ASHIFA SHERENE.S	B+
10	820419104010	ATCHAYA R (SPORTS)	B+
11	820419104011	BALAJI K	B+
12	820419104012	BALAJI M	B
13	820419104013	DEEBU RUBIYA E	B+
14	820419104014	DEEPIKA G	B+
16	820419104016	DESIKA T	B
17	820419104017	DHARSHINI J	B+
18	820419104018	DHILIP KUMAR.P	B
19	820419104019	DHIVYA V	B+
20	820419104020	DINESHKUMAR U	B
21	820419104021	DIVYASREE R	B+
22	820419104022	GOWTHAM E	B+
23	820419104023	GURUHARAN S	B
24	820419104024	HARISH B	B
25	820419104025	IYAPPAN . K	B
26	820419104026	JEEVITHA N	B+
27	820419104027	JUBAIR AHAMED H	B+

University Exam Analysis	
Total no. of students Appeared	84
No. of arrear-students	9
No. of all clear students	75
All clear pass %	89
Attainment	3

Award of Letter Grades	
O (Outstanding)	100
A + (Excellent)	90
A (Very Good)	80
B + (Good)	70
B (Average)	60
U (Re-appearance)	< 50
SA (Shortage of Attendance)	SA
W (Withdrawal)	W

28	820419104028	KARTHIKEYAN A	B+
29	820419104029	KEERTHIKA R	B+
30	820419104030	MADHESH V	B
31	820419104031	MANIKANDAN R	B
32	820419104032	MANOJ KUMAR T	B
33	820419104033	MANOSHREE T	B
34	820419104034	MOHAMED THAHIR S	A
35	820419104035	MOHAMED YASAR A	B
36	820419104036	MUBARAK J	U
37	820419104037	MUKIL I	B
38	820419104038	MUTHULAKSHMI M	B
39	820419104039	NANDHINI V	A
40	820419104040	NATHISH B	B

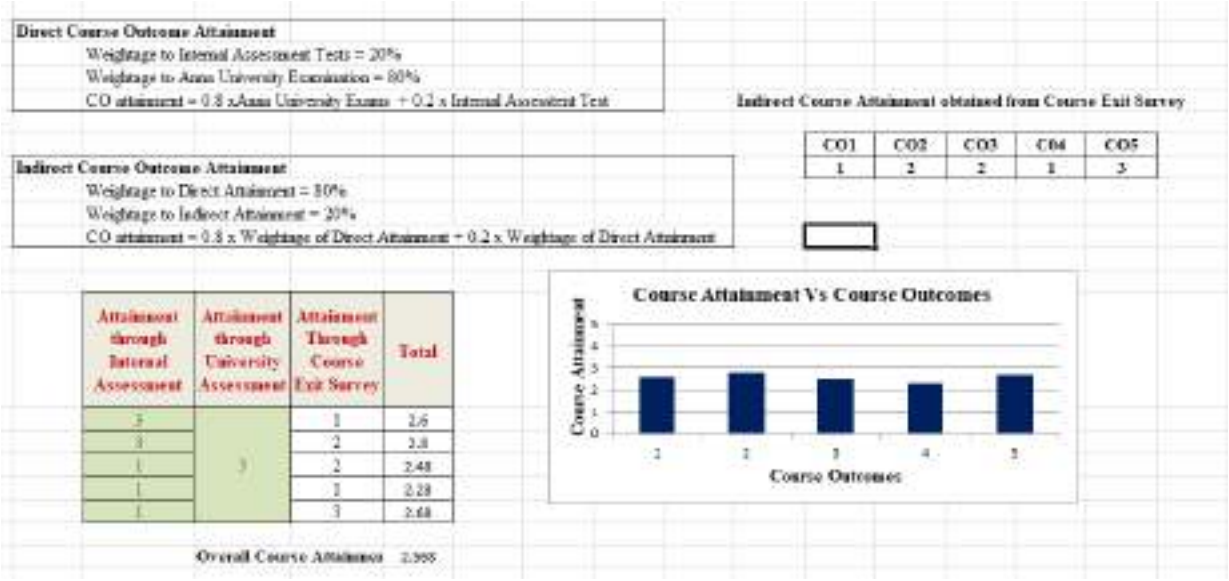
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41	820419104041	NAVEEN K	U
42	820419104042	NAVEENKUMAR G	B
43	820419104043	NIRANJAN M	B+
44	820419104044	NISHANTHINI V	B+
43	820419104045	NITHISH E	B
44	820419104046	NITHYASHREE R	B+
45	820419104047	NIVEDHA K	A
46	820419104048	PEARABULSELVI S	A
47	820419104049	PRASANNA S	B
48	820419104050	PRAVIN A	B
49	820419104051	PREETHIYANGARADEVI . A	B+
50	820419104053	RAMU S	NA
51	820419104054	RAMKUMAR R	B
52	820419104055	SAKTHI GANESH M	B
53	820419104056	SAMYUKTHASRI R M	B+
54	820419104057	SANMATHI R	A
55	820419104058	SANTHA KUMAR P	B+

56	820419104059	SANTHOSHINI M	B+
57	820419104060	SANTHOSH KUMAR R	B+
58	820419104061	SARANYA R	B
59	820419104062	SARASWATHI M	B
60	820419104063	SARAVANAN M	B+
61	820419104064	SATHYA JAYASRI S	B
62	820419104065	SENTHIL RAJ R	A
63	820419104066	SHALINI S	A
64	820419104068	SIVANANTHINI R	A+
65	820419104069	SIVARANJAN K	A
66	820419104070	SOUNDHARYA P	B
67	820419104071	SRINIVAS P R	B+
68	820419104072	SRIVIDHYASRI R	A
69	820419104073	SUBASRI D R	B+
70	820419104074	SUBASRI M	B+
71	820419104075	SUDHARSAN S	B+
72	820419104076	SUGASHINI I	B
73	820419104077	TAMIL PRABHA R	B
74	820419104078	VAISHNAVI P	B
75	820419104079	VASANTH R	B+
76	820419104080	VEERENTHIRAN S	B
77	820419104081	VENGADESH K	B
78	820419104082	VENKADASUBRAMANIAN	B
79	820419104083	VIGNESH .T	B
80	820419104084	VIJITHRA P	B
81	820419104085	VINOTHKUMAR M	B+
82	820419104086	VISHWAKUMAR K	A
83	820419104301	SENTHILKUMAR R	B
84	820419104302	SRIRAM M	B

CO attainment Calculation

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks.



PO Attainment Calculation

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.
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PSO Attainment Calculation

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks.

PSO ATTAINMENT

Faculty Name :	Dr.J.Ganesh
Subject Code :	C8651
Subject Name :	INTERNET PROGRAMMING
Academic Year :	2021-2022 (EVEN)
Semester :	VI
Branch :	III CSE A& B

	PSO1		PSO2		PSO3	
	Mapped	Attained	Mapped	Attained	Mapped	Attained
C601.1	3	2.6	3	2.6	3	2.6
C601.2	3	2.8	2	2.8	2	2.8
C601.3	3	2.48	1	2.48	1	2.48
C601.4	3	2.28	1	2.28	1	2.28
C601.5	3	2.68	3	2.68	3	2.68
Sum	15	12.84	10	12.84	10	12.84
Sum Product		38.52		26.2		26.2
PSO attainment		2.57		2.62		2.62

Course Code	2018-2022				
	CO	Level –Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C101-HS8151	CO1	3	3	2.83	2.97
	CO2	3	3	2.64	2.93
	CO3	3	3	2.57	2.91
	CO4	3	3	2.69	2.94
	CO5	3	3	2.71	2.94
C102-MA8151	CO1	3	3	3	3.00
	CO2	2	3	2	2.64
	CO3	3	3	2.75	2.95
	CO4	0	3	2.8	2.48
	CO5	0	3	2.55	2.43
C103-PH8151	CO1	3	2	2.83	2.33
	CO2	3	2	2.64	2.29
	CO3	3	2	2.57	2.27
	CO4	3	2	2.69	2.30
	CO5	3	2	2.71	2.30
C104-CY8151	CO1	3	2	2.1	2.34
	CO2	3	2	2.22	2.36
	CO3	3	2	2.1	2.34
	CO4	3	2	2.3	2.38
	CO5	3	2	2.1	2.34
C105-GE8151	CO1	3	3	3	3.00
	CO2	3	3	2	2.80
	CO3	3	3	2.75	2.95
	CO4	3	3	2.8	2.96
	CO5	3	3	2.55	2.91
C106-GE8152	CO1	2	3	2.83	2.81
	CO2	1	3	2.64	2.61
	CO3	2	3	2.57	2.75
	CO4	2	3	2.69	2.78
	CO5	2	3	2.71	2.78
C107- GE8161	CO1	3	3	1	2.60
	CO2	3	3	2	2.80
	CO3	3	3	2	2.80
C108-BS8161	CO1	3	3	2.74	2.95
	CO2	3	3	2.59	2.92
	CO3	3	3	2.62	2.92

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Course Code	2018-2022				
	CO	Level –Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C109-HS8251	CO1	3	3	2.66	2.93
	CO2	3	3	2.75	2.95
	CO3	3	3	2.55	2.91
	CO4	3	3	2.66	2.93
	CO5	3	3	2.5	2.90
C110-MA8251	CO1	3	3	3	3.00
	CO2	2	3	2	2.64
	CO3	3	3	2.75	2.95
	CO4	0	3	2.8	2.48
	CO5	0	3	2.55	2.43
C111-PH8252	CO1	3	3	2.46	2.89
	CO2	3	3	2.39	2.88
	CO3	3	3	2.31	2.86
	CO4	3	3	2.33	2.87
	CO5	3	3	2.33	2.87
C112-BE8255	CO1	3	1	2	1.52
	CO2	3	1	2	1.52
	CO3	3	1	2	1.52
	CO4	3	1	2	1.52
	CO5	3	1	2	1.52
C113-GE8291	CO1	3	3	2.81	2.96
	CO2	3	3	2.78	2.96
	CO3	3	3	2.85	2.97
	CO4	3	3	2.83	2.97
	CO5	3	3	2.88	2.98
C114-CS8251	CO1	1	2	1	1.64
	CO2	1	2	2	1.84
	CO3	0	2	2	1.68
	CO4	0	2	1	1.48
	CO5	0	2	3	1.88
C115-GE8261	CO1	3	3	2.74	2.95
	CO2	3	3	2.59	2.92
	CO3	3	3	2.62	2.92

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Course Code	2018-2022				
	CO	Level – Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C116-CS8261	CO1	3	3	2	2.80
	CO2	3	3	2	2.80
	CO3	3	3	1	2.60
C201-MA8351	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	1	2.6
	CO4	3	3	2	2.8
	CO5	3	3	2	2.8
C202-CS8351	CO1	1	2	2.83	2.01
	CO2	1	2	2.78	2.00
	CO3	1	2	2.84	2.01
	CO4	1	2	2.83	2.01
	CO5	1	2	2.84	2.01
C203-CS8391	CO1	1	3	1	2.28
	CO2	2	3	2	2.64
	CO3	2	3	2	2.64
	CO4	1	3	3	2.68
	CO5	1	3	1	2.28
C204-CS8392	CO1	2	3	2.83	2.81
	CO2	2	3	2.78	2.80
	CO3	2	3	2.84	2.81
	CO4	1	3	2.83	2.65
	CO5	1	3	2.84	2.65
C205-EC8395	CO1	3	1	2	1.52
	CO2	3	1	1	1.32
	CO3	3	1	1	1.32
	CO4	3	1	1	1.32
	CO5	3	1	1	1.32

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Course Code	2018-2022				
	CO	Level – Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C206-CS8381	CO1	3	3	2.8	2.96
	CO2	3	3	2.8	2.96
	CO3	3	3	2.8	2.96
C207-CS8383	CO1	2	3	2.87	2.81
	CO2	2	3	2.65	2.77
	CO3	2	3	2.70	2.78
C208-CS8382	CO1	3	3	2	2.8
	CO2	3	3	3	3
	CO3	3	3	2	2.8
C209-HS8381	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	1	2.6
C210-MA8402	CO1	1	3	2	2.48
	CO2	0	3	2	2.32
	CO3	1	3	1	2.28
	CO4	1	3	2	2.48
	CO5	1	3	2	2.48
C211-CS8491	CO1	2	3	1	2.44
	CO2	2	3	2	2.64
	CO3	2	3	2	2.64
	CO4	2	3	1	2.44
	CO5	2	3	3	2.84
C212-CS8492	CO1	0	3	2.77	2.47
	CO2	0	3	2.86	2.49
	CO3	0	3	2.80	2.48
	CO4	0	3	2.84	2.49
	CO5	0	3	2.83	2.49

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Course Code	2018-2022				
	CO	Level –Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C213-CS8451	CO1	1	3	2.83	2.65
	CO2	1	3	2.78	2.64
	CO3	1	3	2.84	2.65
	CO4	1	3	2.83	2.65
	CO5	1	3	2.84	2.65
C214-CS8493	CO1	1	3	1	1.64
	CO2	0	3	2	1.68
	CO3	0	3	2	1.68
	CO4	0	3	2	1.68
	CO5	0	3	1	1.48
C215-CS8494	CO1	1	3	1	2.28
	CO2	1	3	2	2.48
	CO3	2	3	2	2.64
	CO4	2	3	3	2.84
	CO5	3	3	1	2.6
C216-CS8481	CO1	3	3	2.91	2.98
	CO2	3	3	2.86	2.97
	CO3	3	3	2.79	2.96
C217-CS8461	CO1	3	3	3	3
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C218-HS8461	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C301-MA8551	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	1	2.6
	CO4	2	3	2	2.8
	CO5	3	3	2	2.8

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Course Code	2018-2022				
	CO	Level –Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C302-CS8591	CO1	3	3	2.66	2.93
	CO2	3	3	2.73	2.95
	CO3	3	3	2.65	2.93
	CO4	3	3	2.72	2.94
	CO5	3	3	2.66	2.93
C303-EC8691	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	3	3
	CO5	3	3	1	2.6
C304-CS8501	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	1	2.6
	CO4	3	3	2	2.8
	CO5	3	3	2	2.8
C305-CS8592	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	2	2.8
	CO5	3	3	3	3
C306-OEC552	CO1	3	3	2.66	2.93
	CO2	3	3	2.73	2.95
	CO3	3	3	2.65	2.93
	CO4	3	3	2.72	2.94
	CO5	3	3	2.66	2.93

Course Code	2018-2022				
	CO	Level - Direct		Level – Indirect	CO Attainment
		Internal Assessment	University Assessment		
C307-EC8681	CO1	3	3	2.8	2.96
	CO2	3	3	2.8	2.96
	CO3	3	3	2.8	2.96
C308-CS8582	CO1	3	3	3	3
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C309-CS8581	CO1	3	3	2.8	2.96
	CO2	3	3	2.8	2.96
	CO3	3	3	2.8	2.96
C310-CS8651	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	3	3
	CO5	3	3	1	2.6
C311-CS8691	CO1	3	3	2.66	2.93
	CO2	3	3	2.73	2.95
	CO3	3	3	2.65	2.93
	CO4	3	3	2.72	2.94
	CO5	3	3	2.66	2.93
C312-CS8601	CO1	3	3	2.66	2.93
	CO2	3	3	2.73	2.95
	CO3	3	3	2.65	2.93
	CO4	3	3	2.72	2.94
	CO5	3	3	2.66	2.93
C313-CS8602	CO1	3	3	2.6	2.92
	CO2	3	3	2.6	2.92
	CO3	3	3	2.5	2.9
	CO4	3	3	2.5	2.9
	CO5	3	3	2.6	2.92

Course Code	2018-2022				
	CO	Level – Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C314-CS8603	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	2	2.8
	CO5	3	3	1	2.6
C315-CS8075	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	3	3
	CO5	3	3	1	2.6
C316-CS8661	CO1	1	3	2.8	2.64
	CO2	1	3	2.8	2.64
	CO3	1	3	2.8	2.64
C317-CS8662	CO1	3	3	2.8	2.96
	CO2	3	3	2.6	2.92
	CO3	3	3	2.8	2.96
C318- CS8611	CO1	3	3	2.6	2.92
	CO2	3	3	2.6	2.92
	CO3	3	3	2.5	2.9
C319-HS8581	CO1	3	3	2	2.8
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C401-MG8591	CO1	0	3	2.77	2.47
	CO2	2	3	2.76	2.79
	CO3	2	3	2.77	2.79
	CO4	0	3	2.74	2.47
	CO5	0	3	2.78	2.48
C402-CS8792	CO1	0	3	2.8	2.48
	CO2	1	3	2.7	2.62
	CO3	1	3	2.7	2.62
	CO4	0	3	2.7	2.46
	CO5	0	3	2.7	2.46

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Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

Course Code	2018-2022				
	CO	Level – Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C403-CS8791	CO1	0	3	1	2.12
	CO2	0	3	2	2.32
	CO3	0	3	2	2.32
	CO4	0	3	3	2.52
	CO5	0	3	1	2.12
C404-OME752	CO1	0	3	1	2.12
	CO2	0	3	2	2.32
	CO3	2	3	2	2.64
	CO4	1	3	3	2.68
	CO5	0	3	1	2.12
C405-CS8091	CO1	0	3	1	2.12
	CO2	0	3	2	2.32
	CO3	1	3	2	2.48
	CO4	0	3	3	2.52
	CO5	0	3	1	2.12
C406-CS8083	CO1	3	3	2.71	2.94
	CO2	3	3	2.7	2.94
	CO3	3	3	2.72	2.94
	CO4	3	3	2.69	2.94
	CO5	3	3	2.71	2.94
C407-CS8711	CO1	3	3	2.7	2.94
	CO2	3	3	2.7	2.94
	CO3	3	3	2.7	2.94
C408-IT8761	CO1	0	3	2.74	2.47
	CO2	3	3	2.72	2.94
	CO3	0	3	2.76	2.47

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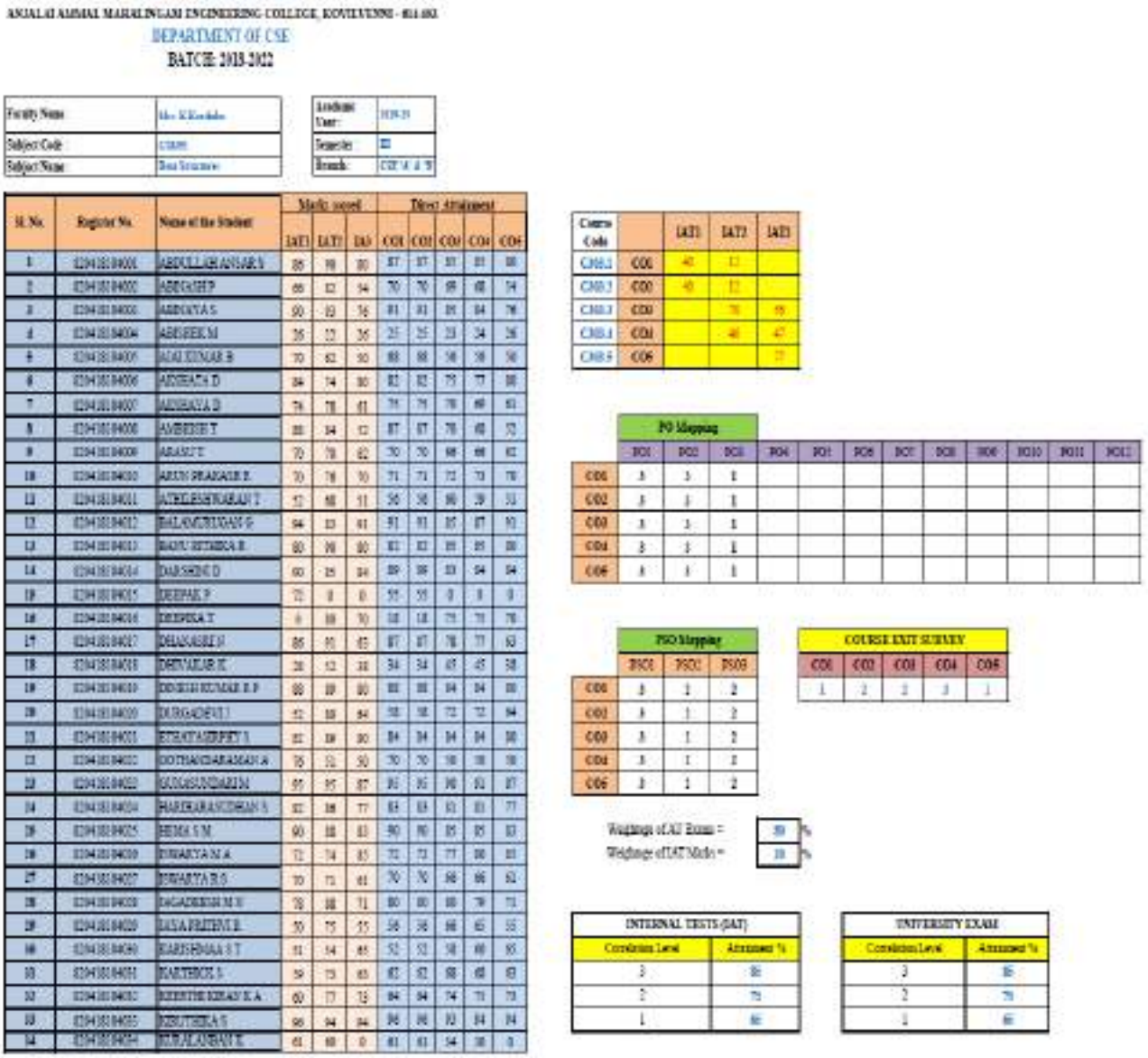
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Course Code	2018-2022				
	CO	Level –Direct		Level – Indirect	CO Attainment
		Internal Assessment	University Assessment		
C409-GE8076	CO1	1	3	2.77	2.63
	CO2	2	3	2.76	2.79
	CO3	3	3	2.77	2.95
	CO4	1	3	2.74	2.63
	CO5	0	3	2.78	2.48
C410-CS8080	CO1	1	3	2.77	2.63
	CO2	2	3	2.76	2.79
	CO3	2	3	2.77	2.79
	CO4	0	3	2.74	2.47
	CO5	0	3	2.78	2.48
C411-CS8811	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	2	2.8

Course Outcome (CO), Programme Outcome (PO) and Programme Specific Outcome (PSO) attainment Calculation

CO Attainment – Internal Assessment Test (Direct)

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks.



ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI - 614 403.

DEPARTMENT OF CSE

BATCH: 2018-2022

Faculty Name		Academic Year:	
Subject Code		Semester	
Subject Name		Branch	

Sl. No.	Register No.	Name of the Student	Marks scored			Direct Attainment				
			IAT1	IAT2	IA3	CO1	CO2	CO3	CO4	CO5
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
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22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										

Course Code		IAT1	IAT2	IAT3
	CO1			
	CO2			
	CO3			
	CO4			
	CO5			

	PO Mapping											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	1									
CO2	3	3	1									
CO3	3	3	1									
CO4	3	3	1									
CO5	3	3	1									

	PSO Mapping		
	PSO1	PSO2	PSO3
CO1	3	1	2
CO2	3	1	2
CO3	3	1	2
CO4	3	1	2
CO5	3	1	2

COURSE EXIT SURVEY				
CO1	CO2	CO3	CO4	CO5
1	2	2	3	1

Weightage of IAT Exam =	50 %
Weightage of IAT Marks =	10 %

INTERNAL TESTS (IAT)	
Correlation Level	Attainment %
3	85
2	75
1	65

UNIVERSITY EXAM	
Correlation Level	Attainment %
3	85
2	75
1	65

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39	0304I0104039	MADHUMALA R	83	88	91	84	84	87	89	91
40	0304I0104040	MADHUMITHA B	71	70	71	72	71	69	71	71
41	0304I0104041	MANGESHWARAN M	62	70	59	65	65	48	44	59
42	0304I0104042	MANIKANDAN S	80	83	85	83	83	88	89	85
43	0304I0104043	MANISHA S	61	70	0	69	68	46	35	0
44	0304I0104044	MEENATCHI R	92	90	0	92	92	52	45	0
45	0304I0104045	MEERA T	77	89	80	82	83	84	84	80
46	0304I0104046	MOHAMED RISWANMALIQ P S	84	91	92	93	68	80	82	82
47	0304I0104047	MOUNIKA E	86	91	80	87	87	85	95	80
48	0304I0104048	NARENDRAN G	42	55	55	45	45	38	35	55
49	0304I0104049	NATARAJAN S	80	76	40	80	80	60	50	40
50	0304I0104050	NAVANEETHAKRISHNAN M	51	50	50	52	51	44	42	50
51	0304I0104051	NAVEENA N	90	87	66	89	89	77	76	66
52	0304I0104052	NIKITHA S	83	89	70	84	84	80	79	70
53	0304I0104053	NIRMATHANBU A	90	92	92	90	90	91	92	92
54	0304I0104054	PRANGADEESH S	0	33	30	5	5	35	35	30
55	0304I0104055	PRAGADEESHWARAN R	86	87	87	88	88	87	82	87
56	0304I0104056	PRIYADHARSHINI R	90	84	90	91	91	91	92	90
57	0304I0104057	RAJESWARI A	92	85	85	90	90	84	85	85
58	0304I0104058	RISHI KUMAR G	72	71	60	72	72	65	65	60
59	0304I0104059	SAIRAM MATHI B	62	67	21	62	63	47	44	21
60	0304I0104060	SAKTHI S	85	91	74	89	86	83	83	74
61	0304I0104061	SANTHOSH S	38	6	6	30	31	6	6	6
62	0304I0104062	SATHIYAN S	92	92	59	92	92	52	50	59
63	0304I0104063	SAYED IBRAHIM M	82	85	57	78	78	81	81	57
64	0304I0104064	SERAFIN J	97	95	93	97	97	90	90	93
65	0304I0104065	SHAFIULAZEEMRAFIYA A	94	96	93	94	94	89	89	93
66	0304I0104066	SHAQTERHAM B	66	70	20	67	67	51	48	20
67	0304I0104067	SHREE SANTOSHAR S	70	70	54	70	70	62	62	54
68	0304I0104068	SHREYA R	68	75	70	68	68	72	72	70
69	0304I0104069	SHIVAKARTHIKEYAN B	76	80	0	72	72	34	30	0
70	0304I0104070	SIVASURIYA G	77	74	70	78	78	71	72	70
71	0304I0104071	SNEHA T	0	82	80	19	19	80	81	80
72	0304I0104072	SOORIYA R	50	48	42	50	50	45	45	42
73	0304I0104073	SOUMIYA M	59	54	62	58	58	45	48	62
74	0304I0104074	SOWNDARYA S V	88	86	76	88	88	81	81	76
75	0304I0104075	SUBATHRA R	77	78	80	78	78	81	83	80
76	0304I0104076	SUGANTHI D	72	85	72	79	75	78	78	72
77	0304I0104077	SUGUCHANA R	90	93	82	90	91	87	87	82
78	0304I0104078	SWETHA K	83	86	0	86	86	55	47	0
79	0304I0104079	SYED MUHAMMED ANSHAD	87	95	86	89	89	89	90	86
80	0304I0104080	VADIVENAYI G	84	88	88	86	90	82	83	88
81	0304I0104081	VARUN M	26	34	8	25	25	11	11	8
82	0304I0104082	VENKATESH S	0	31	0	12	12	20	25	0
83	0304I0104083	VISHNU KUMAR P	52	62	43	62	62	53	52	43
84	0304I0104084	VISWANATHAN B S	61	78	52	65	65	66	65	52
85	0304I0104085	YOGESHWARAN R	74	76	46	74	76	62	60	46
86	0304I0104701	JAYASURYA J	73	78	74	73	73	75	76	74

No of Students	82	82	82	82	82
<50	11	11	17	10	10
50-60	6	6	9	8	8
60-70	25	15	14	11	14
>70	50	50	42	43	50
Total	82	82	82	82	82
Scored 50	71	71	65	65	65
Attainment	87	87	79	77	72
	3	3	2	2	2

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CO Attainment Level– End Semester Examination

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.

Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.

Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks.

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI - 614 403.

DEPARTMENT OF CSE

CO ATTAINMENT FOR UNIVERSITY EXAMINATION

Faculty Name :	Mrs. K.Karthika
Subject Code :	CS8391
Subject Name :	Data Structures
Academic Year :	2019-20
Semester :	III
Branch :	CSE 'A' & 'B'

University Exam Analysis	
Total no. of students Appeared	81
No. of arrear-students	11
No. of all clear students	70
All clear pass %	86
Attainment	3

Sl. No.	Register No.	Name of the Student	ES Grade
1	820418104001	ABDULLAH ANSAR S	B+
2	820418104002	ABINASH P	B
3	820418104003	ABINAYA S	B+
4	820418104004	ABISHEK M	U
5	820418104005	AJAI KUMAR B	B
6	820418104006	AKSHATA D	U
7	820418104007	AKSHAYA D	B
8	820418104008	AMBRISH T	B+
9	820418104009	ARASU T	B
10	820418104010	ARUN PRAKASH R	A
11	820418104011	ATHILESHWARAN T	B
12	820418104012	BALAMURUGAN G	A
13	820418104013	BANU RITHIKA R	B+
14	820418104014	DARSHINI D	A
15	820418104015	DEEPAK P	B+
16	820418104016	DEEPIKA T	A
17	820418104017	DHANASRI N	B+
18	820418104018	DHIVAKAR K	U

Award of Letter Grades	
O (Outstanding)	100
A + (Excellent)	90
A (Very Good)	80
B + (Good)	70
B (Average)	60
U (Re-appearance)	< 50
SA (Shortage of Attendance)	SA
W (Withdrawal)	W

19	820418104019	DINESH KUMAR R P	B+
20	820418104020	DURGADEVI J	B
21	820418104021	ETHAYASIRPHY S	B+
22	820418104022	GOTHANDARAMAN A	B
23	820418104023	GUNASUNDARI M	UA
24	820418104024	HARIHARASUDHAN S	B
25	820418104025	HEMA S M	U
26	820418104026	ISWARYA M A	B
27	820418104027	ISWARYA R S	B
28	820418104028	JAGADEESH M N	A
29	820418104029	JAYA PRITHVI R	B
30	820418104030	KARISHMAA S T	B+
31	820418104031	KARTHICK S	B
32	820418104032	KEERTHI KIRAN K A	B+
33	820418104033	KIRUTHIKA S	A+
34	820418104034	KURALANBAN K	B
35	820418104035	MADHUBALA R	A
36	820418104036	MADHUMITHA B	B
37	820418104037	MAGESHWARAN M	U
38	820418104038	MAHESWARI S	B+
39	820418104039	MAHISHA S	B
40	820418104040	MEENATCHI R	A
41	820418104041	MEERA T	B+
42	820418104042	MOHAMED RISWANMALIQ P S	B+
43	820418104043	MOUNIKA E	B
44	820418104044	NARENDRAN S	B
45	820418104045	NATARAJAN S	B+
46	820418104046	NAVASEEVAGAN N	B+
47	820418104047	NAVEENA N	A+
48	820418104048	NIKITHA S	B+
49	820418104049	PARVATHASRI A	A+
50	820418104050	PRAGADEESH S	U
51	820418104051	PRAGADEESHWARAN R	A
52	820418104052	PRIYADHARSHINI R	A+
53	820418104053	RAJESWARI A	A
54	820418104054	RISHI KUMAR G	B
55	820418104055	SABARI NATH B	U
56	820418104056	SAKTHI S	B
57	820418104057	SANTHOSH S	U
58	820418104058	SATHIYAN S	B
59	820418104059	SAYED IBRAHIM M	B
60	820418104060	SERAFIN J	B+
61	820418104061	SHAFINATHUNRAFIYA A	A
62	820418104062	SHAQTERHAM B	B
63	820418104063	SHJILSAIKUMAR S	B
64	820418104064	SHILPA R	B
65	820418104065	SHIVAKARTHIKEYAN B	U
66	820418104066	SIVASURYA G	B+
67	820418104067	SNEHA T	B+
68	820418104068	SOORYA K	B
69	820418104069	SOWMIYA M	B
70	820418104070	SOWNDARYA S V	A
71	820418104071	SUBATHRA R	B+
72	820418104072	SUGANTHI D	A
73	820418104073	SULOCHANA R	A+
74	820418104074	SWETHA K	A
75	820418104075	SYED MUHAMMEDASHM	B+
76	820418104076	VAISHNAVI G	A+
77	820418104077	VARUN M	U
78	820418104078	VENKATESH S	B
79	820418104079	VISHNU KUMAR P	U
80	820418104080	VISWANATHAN B S	B+
81	820418104081	YOGESHWARAN R	B+
82	820418104701	JAYASURYA I	B+

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CO attainment Calculation

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.
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Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks.

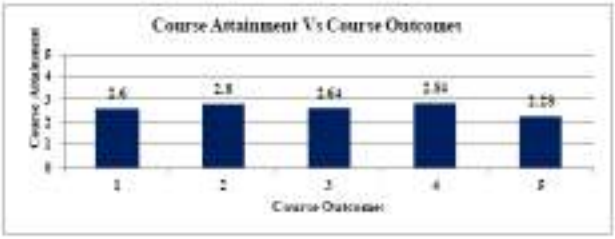
Direct Course Outcome Attainment
Weightage to Internal Assessment Tests = 20%
Weightage to Anna University Examination = 80%
CO attainment = 0.8 xAnna University Exams + 0.2 x Internal Assessment Test

Indirect Course Attainment obtained from Course Exit Survey

CO1	CO2	CO3	CO4	CO5
1	2	2	3	1

Indirect Course Outcome Attainment
Weightage to Direct Attainment = 80%
Weightage to Indirect Attainment = 20%
CO attainment = 0.8 x Weightage of Direct Attainment + 0.2 x Weightage of Direct Attainment

Attainment through Internal Assessment	Attainment through University Assessment	Attainment Through Course Exit Survey	Total
3	3	1	2.6
3		2	2.8
2		2	2.64
2		3	2.84
1		1	2.28
Overall Course Attainment			2.632



PO Attainment Calculation

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks.

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI - 614 403.
DEPARTMENT OF CSE
PO ATTAINMENT

Faculty Name :		Academic Year :	
Subject Code :		Semester :	
Subject Name :		Branch :	

	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		PO10		PO11		PO12	
	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained
CO1	3	2.6	3	2.6	2	2.6																		
CO2	3	2.8	3	2.8	2	2.8																		
CO3	2	2.64	2	2.64	2	2.64																		
CO4	2	2.84	2	2.84	2	2.84																		
CO5	1	2.28	1	2.28	1	2.28																		
Sum	11	13.16	11	13.16	9	13.16																		
Sum/Product		20.48		20.48		24.88																		
PO attainment		2.632		2.632		2.6211111																		

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PSO Attainment Calculation

Attainment Level 1 - 65% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 75% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 85% of students securing more than 50% marks out of relevant maximum marks.

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI - 614 403.
DEPARTMENT OF CSE
PO ATTAINMENT

Faculty Name :	Mrs. K.Karthika
Subject Code :	CS8391
Subject Name :	Data Structures

Academic Year :	2019-20
Semester :	III
Branch :	CSE 'A' & 'B'

	PSO1		PSO2		PSO3	
	Mapped	Attained	Mapped	Attained	Mapped	Attained
CS03.1	3	2.6	2	2.6	3	2.6
CS03.2	3	2.8	2	2.8	3	2.8
CS03.3	3	2.64	2	2.64	3	2.64
CS03.4	3	2.64	2	2.64	3	2.64
CS03.5	3	2.28	2	2.28	3	2.28
Sum	15	13.16	10	13.16	15	13.16
Sum Product		39.48		26.32		39.48
PSO attainment		2.64		2.632		2.64

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Course Code	2017-2021				
	CO	Level –Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C101-HS8151	CO1	3	3	3	3
	CO2	3	3	3	3
	CO3	3	3	3	3
	CO4	3	3	3	3
	CO5	3	3	3	3
C102-MA8151	CO1	2	2	2	2
	CO2	3	2	3	2.36
	CO3	1	2	1	1.64
	CO4	1	2	1	1.64
	CO5	3	2	3	2.36
C103-PH8151	CO1	3	3	3	3
	CO2	2	3	2	2.16
	CO3	3	3	3	2.8
	CO4	3	3	3	2.8
	CO5	3	3	3	3
C104-CY8151	CO1	3	3	3	3
	CO2	3	3	3	3
	CO3	3	3	3	3
	CO4	3	3	3	3
	CO5	3	3	3	3
C105-GE8151	CO1	2	3	1	2.44
	CO2	2	3	2	2.64
	CO3	2	3	2	2.64
	CO4	3	3	1	2.6
	CO5	3	3	3	2.8
C106-GE8152	CO1	3	1	1	1.32
	CO2	3	1	2	1.52
	CO3	3	1	2	1.52
	CO4	3	1	1	1.32
	CO5	3	1	3	1.72
C107- GE8161	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
C108-BS8161	CO1	3	3	3	3
	CO2	3	3	3	3
	CO3	3	3	3	3

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Course Code	2017-2021				
	CO	Level –Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C109-HS8251	CO1	3	3	3	3
	CO2	3	3	3	3
	CO3	3	3	3	3
	CO4	3	3	3	3
	CO5	3	3	3	3
C110-MA8251	CO1	3	3	3	3
	CO2	3	3	3	3
	CO3	2	3	2	2.64
	CO4	2	3	2	2.64
	CO5	2	3	2	2.64
C111-PH8252	CO1	2	2	2	2
	CO2	3	2	3	2.36
	CO3	1	2	1	1.64
	CO4	0	2	1	1.48
	CO5	0	2	1	1.48
C112-BE8255	CO1	1	1	1	1
	CO2	1	1	1	1
	CO3	3	1	3	1.72
	CO4	0	1	0	0.64
	CO5	0	1	0	0.64
C113-GE8291	CO1	3	3	3	3
	CO2	3	3	3	3
	CO3	3	3	3	3
	CO4	2	3	2	2.64
	CO5	3	3	3	3
C114-CS8251	CO1	2	3	1	2.44
	CO2	2	3	2	2.64
	CO3	2	3	2	2.64
	CO4	3	3	1	2.6
	CO5	3	3	3	2.8
C115-GE8261	CO1	3	3	3	3
	CO2	3	3	3	3
	CO3	3	3	3	3

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Course Code	2017-2021				
	CO	Level – Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C116-CS8261	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
C201-MA8351	CO1	3	2	1	1.96
	CO2	3	2	2	2.16
	CO3	3	2	2	2.16
	CO4	3	2	1	1.96
	CO5	3	2	3	2.36
C202-CS8351	CO1	3	1	1	1.32
	CO2	3	1	2	1.52
	CO3	3	1	2	1.52
	CO4	3	1	1	1.32
	CO5	3	1	3	1.72
C203-CS8391	CO1	3	1	1	1.32
	CO2	3	1	2	1.52
	CO3	3	1	2	1.52
	CO4	3	1	1	1.32
	CO5	2	1	3	1.56
C204-CS8392	CO1	3	2	1	2.6
	CO2	3	2	2	2.8
	CO3	3	2	2	2.8
	CO4	2	2	1	2.44
	CO5	2	2	3	2.84
C205-EC8395	CO1	3	0	1	0.68
	CO2	3	0	2	0.88
	CO3	3	0	2	0.88
	CO4	3	0	1	0.68
	CO5	2	0	1	0.52

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Course Code	2017-2021				
	CO	Level –Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C206-CS8381	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
C207-CS8383	CO1	3	3	1	3
	CO2	3	3	2	2.8
	CO3	3	3	2	3
C208-CS8382	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	1	2.6
C209-HS8381	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
C210-MA8402	CO1	1	2	1	1.64
	CO2	2	2	2	2
	CO3	2	2	2	2
	CO4	1	2	1	1.64
	CO5	1	2	3	2.04
C211-CS8491	CO1	3	2	1	2.6
	CO2	3	2	2	2.8
	CO3	3	2	2	2.8
	CO4	2	2	1	2.44
	CO5	2	2	3	2.84
C212-CS8492	CO1	3	2	1	1.96
	CO2	3	2	2	2.16
	CO3	3	2	2	2.16
	CO4	3	2	1	1.96
	CO5	3	2	3	2.36

Course Code	2017-2021				
	CO	Level – Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C213-CS8451	CO1	3	1	1	1.96
	CO2	3	1	2	2.16
	CO3	3	1	2	2.16
	CO4	3	1	1	1.96
	CO5	3	1	2	2.16
C214-CS8493	CO1	1	2	1	1.64
	CO2	1	2	2	1.84
	CO3	2	2	2	2
	CO4	0	2	2	1.68
	CO5	0	2	1	1.48
C215-CS8494	CO1	3	2	1	1.96
	CO2	3	2	2	2.16
	CO3	3	2	2	2.16
	CO4	2	2	1	1.8
	CO5	3	2	1	1.96
C216-CS8481	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
C217-CS8461	CO1	3	3	3	3
	CO2	3	3	2	2.8
	CO3	3	3	3	3
C218-HS8461	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	1	2.6
C301-MA8551	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	2	3	1	2.44
	CO5	3	3	3	3

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Course Code	2017-2021				
	CO	Level – Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C302-CS8591	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	2	3	1	2.44
	CO5	3	3	2	2.8
C303-EC8691	CO1	2	0	1	0.52
	CO2	2	0	2	0.72
	CO3	2	0	2	0.72
	CO4	1	0	2	0.56
	CO5	1	0	1	0.36
C304-CS8501	CO1	0	2	1	1.48
	CO2	1	2	2	1.84
	CO3	2	2	2	2
	CO4	0	2	1	1.48
	CO5	0	2	3	1.88
C305-CS8592	CO1	3	3	2	2.8
	CO2	1	3	2	2.48
	CO3	0	3	2	2.32
	CO4	1	3	1	2.28
	CO5	1	3	3	2.68
C306-OEC552	CO1	1	3	1	2.28
	CO2	1	3	2	2.48
	CO3	2	3	2	2.64
	CO4	2	3	1	2.44
	CO5	2	3	3	2.84

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Course Code	2017-2021				
	CO	Level - Direct		Level – Indirect	CO Attainment
		Internal Assessment	University Assessment		
C307-EC8681	CO1	2	3	2	2.64
	CO2	3	3	2	2.8
	CO3	2	3	2	2.64
C308-CS8582	CO1	2	3	3	2.84
	CO2	2	3	2	2.64
	CO3	2	3	3	2.84
C309-CS8581	CO1	2	3	1	2.44
	CO2	2	3	2	2.64
	CO3	2	3	1	2.44
C310-CS8651	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	2	2.8
C311-CS8691	CO1	0	3	1	2.12
	CO2	1	3	2	2.48
	CO3	3	3	2	2.8
	CO4	0	3	1	2.12
	CO5	1	3	2	2.48
C312-CS8601	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	2	2.8
C313-CS8602	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	2	2.8
	CO4	3	3	2	2.8
	CO5	3	3	2	2.8

Course Code	2017-2021				
	CO	Level – Direct		Level -Indirect	CO Attainment
		Internal Assessment	University Assessment		
C314-CS8603	CO1	0	3	2	2.32
	CO2	1	3	1	2.28
	CO3	3	3	3	3
	CO4	2	3	1	2.44
	CO5	2	3	3	2.84
C315-CS8075	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	3	3
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C316-CS8661	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
C317-CS8662	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	1	2.6
C318- CS8611	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	2	2.8
C319-HS8581	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
C401-MG8591	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C402-CS8792	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	3	3
	CO4	3	3	1	2.6
	CO5	3	3	2	2.8

Course Code	2017-2021				
	CO	Level –Direct		Level - Indirect	CO Attainment
		Internal Assessment	University Assessment		
C403-CS8791	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C404-OME752	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C405-CS8091	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C406-CS8083	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	3	3
C407-CS8711	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	2	2.8
C408-IT8761	CO1	3	3	2	2.8
	CO2	3	3	1	2.6
	CO3	3	3	2	2.8

Course Code	2017-2021				
	CO	Level –Direct		Level - Indirect	CO Attainment
		Internal Assessment	University Assessment		
C409-IT8073	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	2	2.8
	CO5	3	3	2	2.8
C410-CS8080	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8
	CO4	3	3	1	2.6
	CO5	3	3	2	2.8
C411-CS8811	CO1	3	3	1	2.6
	CO2	3	3	2	2.8
	CO3	3	3	2	2.8

Course Outcome (CO), Programme Outcome (PO) and Programme Specific Outcome (PSO) attainment Calculation

CO Attainment – Internal Assessment Test (Direct)

Attainment Level 1 - 60% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 70% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 80% of students securing more than 50% marks out of relevant maximum marks.

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
Department of Computer Science and Engineering
CO ATTAINMENT - Internal Assessment Test

III CSE OBCS52 Soft Computing Academic Year: 2019-2020

Sl. No.	Register No.	Name of the Student	Marks scored			Direct Attainment				
			IAT1	IAT2	IA3	CO1	CO2	CO3	CO4	CO5
1	820417104001	ABDULRAHMAN YAVAS S	18	30	45	31	20	35	38	45
2	820417104002	AJAY B	44	60	57	53	53	59	58	57
3	820417104003	AKASH S	34	52	80	40	57	75	70	80
4	820417104004	AKASH T	63	70	21	44	55	55	43	21
5	820417104005	AMARNATH P R	28	57	29	28	57	48	41	29
6	820417104006	ARCHANA R	53	0	77	61	41	24	43	77
7	820417104007	ARUN PRAKASH C	0	10	8	5	5	8.8	7.8	8
8	820417104008	ASWIN R	38	60	61	50	51	60	61	61
9	820417104009	BALAJI G	0	0	0	0	0	0	0	0
10	820417104010	BALASURYA B	28	46	0	16	27	32	20	0
11	820417104011	DEEPALAKSHMI S	80	91	87	84	85	90	89	87
12	820417104012	DIVYA SREE S	40	0	41	38	27	13	23	41
13	820417104014	DIVYADHARANI A K	73	93	91	82	83	92	82	91
14	820417104013	GAYATHRI N	63	87	81	73	70	85	84	81
15	820417104015	GAYATRI A R	73	86	80	77	79	84	85	80
16	820417104017	HABEEBULLA S	68	73	58	64	67	68	69	58
17	820417104018	HARINI S	80	79	82	73	74	72	88	82
18	820417104019	HARSHITHa E	28	34	18	24	26	29	25	18
19	820417104020	ISWARYA P	33	72	45	43	40	64	57	45
20	820417104021	JAZAR ALI I	66	77	51	68	60	69	65	51
21	820417104022	JAYA PRABHA G	78	88	50	69	72	71	65	50
22	820417104023	JEYANTHY N M	39	71	50	48	52	65	59	50
23	820417104024	KAMALESH K	30	0	0	14	13	0	0	0
24	820417104025	KARTHIKA A	58	87	82	73	74	85	84	82
25	820417104026	KAVYA B	28	74	58	45	51	69	65	58
26	820417104027	LAKSHMI NIVEDHITHA S	78	83	42	63	71	70	60	42
27	820417104028	MADHESH U	28	42	50	38	37	44	40	50
28	820417104029	MAHMOODH M	69	72	50	66	65	65	60	50
29	820417104030	MOHAMED HARISH	75	88	80	78	81	86	84	80
30	820417104031	MOHAMED HASAN I	18	42	8	15	24	32	25	8
31	820417104032	MONICA T	72	82	67	76	76	77	74	67
32	820417104033	MOUSA J J	36	61	50	44	48	58	55	50
33	820417104034	MUGUNTHAN T M	38	61	18	38	41	48	37	18
34	820417104035	MUKESH S	48	64	70	58	56	66	67	70
35	820417104036	MUTHAMILARASAN D	8	37	8	6	16	26	16	8
36	820417104037	NAVANEETHAN R	0	67	12	16	25	50	36	12
37	820417104038	NAVEEN KUMAR M	12	45	37	24	29	43	41	37
38	820417104039	NITHYASREE B	71	88	90	68	74	78	71	90
39	820417104040	NUSRATH JAHAN A B	89	85	87	86	86	86	86	87
40	820417104041	PADMAVATHI R	59	76	62	61	65	72	69	62
41	820417104042	PARIMALA JOSNA R	0	12	5	1	5	9.9	8.1	5
42	820417104043	PAVITHRA S	85	82	80	82	83	81	81	80
43	820417104044	PRABAKARAN G M	68	0	0	32	29	0	0	0

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44	820417104045	PREETHI R (23-10-1999)	72	80	61	67	72	74	69	61
45	820417104046	PREETHI R (D/O S RAVICHANDRAN)	75	76	3	41	57	54	35	3
46	820417104047	PRIYADHARSHINI G A	50	58	51	53	53	58	54	51
47	820417104048	RAGAMALIGA P	60	80	83	73	75	80	85	83
48	820417104049	RAGAVI R	36	60	93	64	58	70	78	93
49	820417104050	RAGUPATHI R	0	50	89	45	39	62	72	89
50	820417104051	RAKSHANA B T	80	80	42	67	75	68	59	42
51	820417104052	RAKSHANA K V	50	60	50	53	53	57	54	50
52	820417104053	SADHANA S	0	50	67	35	33	55	50	67
53	820417104054	SAKTHIKUMAR S	42	60	68	55	55	62	64	68
54	820417104056	SANTHOSH RAM V	30	66	88	50	48	73	78	88
55	820417104057	SARANYA P	22	52	58	41	41	54	55	58
56	820417104058	SASIREKHA K	60	85	51	57	66	75	68	51
57	820417104059	SHANMUGA PRIYA M	0	60	70	37	38	63	66	70
58	820417104060	SIVA BHARATHI N	0	86	54	31	42	76	68	54
59	820417104061	SIVARANJANI C	38	60	82	51	48	67	72	82
60	820417104062	SNEHA D	72	66	89	80	74	75	79	89
61	820417104063	SONALI R	70	90	77	75	78	86	83	77
62	820417104064	SOUNDARYA M	60	74	79	70	69	76	77	79
63	820417104065	SOWMIYA M	86	80	87	86	84	82	84	87
64	820417104066	SOWMIYA R H	82	70	70	66	67	70	70	70
65	820417104067	SRIDHAR S	36	70	89	54	52	76	81	89
66	820417104069	SRIRAM R S	50	50	89	68	60	62	72	89
67	820417104070	SUBHASHBALAJI M S	36	56	73	55	52	61	65	73
68	820417104071	SUDHESHNA A G	78	90	80	80	83	87	84	80
69	820417104072	SWAMINATHAN S	84	80	87	75	68	68	78	87
70	820417104073	VASANTHAN M	70	60	10	43	52	45	32	10
71	820417104074	VENKATESH S	36	50	87	61	53	61	71	87
72	820417104075	VENKATESHWARAN M	50	60	87	68	63	68	75	87
73	820417104076	VITHYA M	70	68	64	67	68	67	66	64
74	820417104077	YUKESH RAAJ S	70	74	89	79	76	79	82	89
75	820417104501	SWATHYKA K	50	60	90	69	63	69	77	90
76	820417104701	ABINAYA G	44	77	22	36	50	60	46	22
77	820417104702	PRADEEPAA V	78	74	61	70	72	70	67	61

	77	77	77	77	77
<50	30	27	17	21	22
51-60	12	17	9	10	10
61<70	18	11	22	19	12
>70	17	22	29	27	27
Total	77	78	79	80	81
Scored>50	47	50	60	56	55
Attainment	61	65	78	73	71
	1	1	2	2	2

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CO Attainment Level– End Semester Examination

Attainment Level 1 - 60% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 70% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 80% of students securing more than 50% marks out of relevant maximum marks.

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
Department of Computer Science and Engineering
End Semester Examination

III CSE :OEC552 Soft Computing **Academic Year: 2019-2020**

Sl. No.	Register No.	Name of the Student	Marks scored ES Grade
1	820417104001	ABDULKASIM FAYAS S	B+
2	820417104002	AJAY B	A
3	820417104003	AKASH S	A+
4	820417104004	AKASH T	A
5	820417104005	AMARNATH P R	A
6	820417104006	ARCHANA R	A
7	820417104007	ARUN PRAKASH C	B
8	820417104008	ASWIN R	B
9	820417104009	BALAJI G	U
10	820417104010	BALASHIVA B	B
11	820417104011	DEEPALAKSHMI S	A+
12	820417104012	DIVIYA SREE S	U
13	820417104014	DIVYADHARANI A K	B
14	820417104015	GAYATHIRI N	B+
15	820417104016	GAYATRI A B	B
16	820417104017	HABEEBULLA S	B+
17	820417104018	HARINI S	B
18	820417104019	HARSHITHA E	B
19	820417104020	ISWARYA P	B
20	820417104021	JAFAR ALI S	B
21	820417104022	JAYA PRABHA G	B+
22	820417104023	JEYANITHY N M	B
23	820417104024	KAMALESH K	U
24	820417104025	KARTHIKA A	B+
25	820417104026	KAVIYA B	B
26	820417104027	LAKSHMI NIVEDHITHA S	A
27	820417104028	MADHESH U	U
28	820417104029	MANIMOZHI M	B+
29	820417104030	MOHAMED HARISH	B
30	820417104031	MOHAMED HASAN J	B
31	820417104032	MONICA T	B+
32	820417104033	MONISA J J	B
33	820417104034	MUGUNTHAN T M	B
34	820417104035	MUKESH S	B
35	820417104036	MUTHAMILARASAN D	U
36	820417104037	NAVANEEDHAN R	B
37	820417104038	NAVEEN KUMAR M	B
38	820417104039	NITHYASREE R	B+
39	820417104040	NUSRATH JAHAN A B	B+
40	820417104041	PADMAVATHI R	B
41	820417104042	PARIMALA RENGA K	U
42	820417104043	PAVITHRA S	A
43	820417104044	PRABAKARAN G M	UA
44	820417104045	PREETHI R (23-10-1999)	B+
45	820417104046	PREETHI R (D/O. S.RAVICHANDRAN)	B
46	820417104047	PRIYADHARSHINI G A	B+
47	820417104048	RAGAMALIKA P	B+
48	820417104049	RAGAVI R	B
49	820417104050	RAGUPATHI R	B
50	820417104051	RAKSHANA B T	A
51	820417104052	RAKSHANA K V	B
52	820417104053	SADHANA S	B+
53	820417104054	SAKTHIKUMAR S	U
54	820417104056	SANTHOSH RAM V	B
55	820417104057	SARANYA P	U
56	820417104058	SASIREKHA K	B
57	820417104059	SHANMUGA PRIYA M	B+
58	820417104060	SIVA BHARATHI N	B
59	820417104061	SIVARANJANI C	U
60	820417104062	SNEHA D	B
61	820417104063	SONALI R	A
62	820417104064	SOUNDARYA M	B
63	820417104065	SOWMIYA M	B+
64	820417104066	SOWMIYA R H	B
65	820417104067	SRIDHAR S	U
66	820417104069	SRIRAM R S	B+
67	820417104070	SUBHASHIRALAJI M S	B+
68	820417104071	SUDHESHNA A G	B+
69	820417104072	SWAMINATHAN S	B
70	820417104073	VASANTHAN M	B
71	820417104074	VENKATESH S	B+
72	820417104075	VENKATESHWARAN M	A
73	820417104076	VITHYA M	B+
74	820417104077	YUKESH RAAJ S	B+
75	820417104301	SWATHYKA K	B+
76	820417104701	ABINAYA G	A
77	820417104702	PRADEEPAA V	A

Total no. of students	77
No. U/A	1
No. of arrear-students	10
No. of all clear students	67
All clear pass %	87.01

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CO attainment Calculation

Attainment Level 1 - 60% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 70% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 80% of students securing more than 50% marks out of relevant maximum marks.

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE

Department of Computer Science and Engineering

CO ATTAINMENT CALCULATION

III CSE :OEC552 Soft Computing Academic Year: **2019-2020**

Weightage to Internal Assessment Tests = 20%
Weightage to Anna University Examination = 80%
Direct attainment = 0.8 xAnna University Exams + 0.2 x Internal Assessment Test

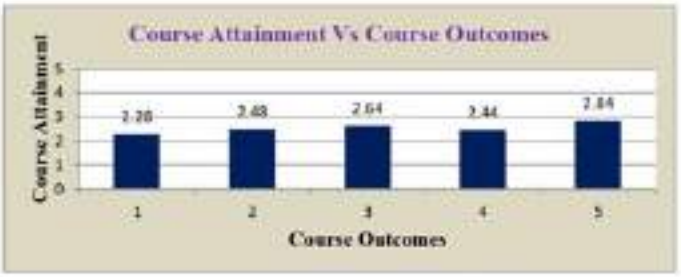
Indirect Attainment obtained from Course Exit Survey

CO1	CO2	CO3	CO4	CO5
1	2	2	1	3

Course Outcome Attainment
Weightage to Direct Attainment = 80%
Weightage to Indirect Attainment = 20%
CO attainment = 0.8 x Weightage of Direct Attainment + 0.2 x Weightage of Indirect Attainment

Attainment through Internal Assessment	Attainment through University Assessment	Attainment Through Course Exit Survey	Total
1	3	1	2.28
1		2	2.48
2		2	2.64
2		1	2.44
2		3	2.84

Overall Course Attainment 2.536



PO Attainment Calculation

Attainment Level 1 - 60% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 70% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 80% of students securing more than 50% marks out of relevant maximum marks.

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE

Department of Computer Science and Engineering

PO ATTAINMENT Calculation

III CSE :OEC552 Soft Computing Academic Year: 2019-2020

	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8		PO9		P10		P11		P12	
	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained	Mapped	Attained
CO1.1	3	2.28	2	2.28	3	2.28																		
CO1.2	3	2.48	3	2.48	3	2.48																		
CO1.3	3	2.64	2	2.64	3	2.64																		
CO1.4	3	2.44	3	2.44	3	2.44																		
CO1.5	3	2.84	3	2.84	3	2.84																		
Sum	15	12.68	13	12.68	15	12.68																		
Sum Product		38.04		33.12		38.04																		
PO attainment		2.536		2.54769		2.536																		

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PSO Attainment Calculation

Attainment Level 1 - 60% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 2 - 70% of students securing more than 50% marks out of relevant maximum marks.
Attainment Level 3 - 80% of students securing more than 50% marks out of relevant maximum marks.

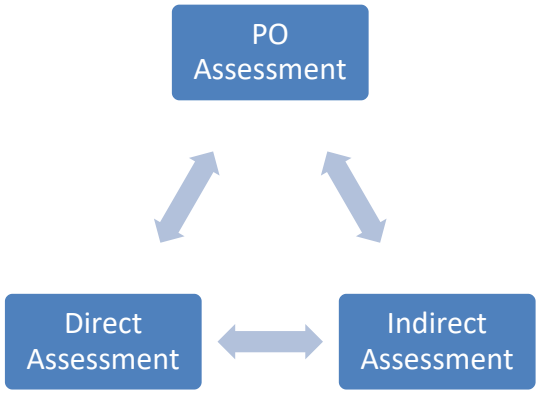
ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
Department of Computer Science and Engineering
PSO ATTAINMENT Calculations

III CSE :OEC552 Soft Computing Academic Year: 2019-2020

	PSO1		PSO2		PSO3	
	Mapped	Attained	Mapped	Attained	Mapped	Attained
C506.1	3	2.28	2	2.28	2	2.28
C506.2	3	2.48	2	2.48	3	2.48
C506.3	3	2.64	2	2.64	3	2.64
C506.4	3	2.44	2	2.44	3	2.44
C506.5	3	2.84	2	2.84	3	2.84
Sum	15	12.68	10	12.68	14	12.68
Sum Product		38.04		25.36		35.76
PSO attainment		2.54		2.536		2.56

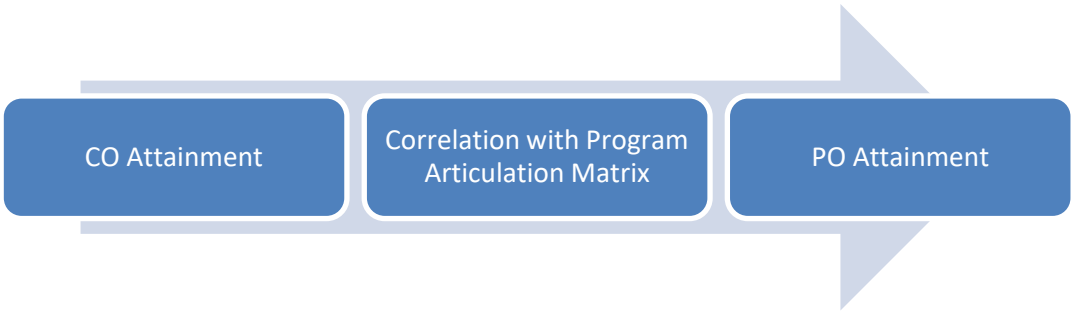
3.3.1. Describe assessment tools and processes used for measuring the attainment of each Program Outcome and Program Specific Outcomes (10)

POs specify the measurable knowledge and skills, we expect the students to possess after completing the graduate program. The assessment of PO is done through the process of collecting evidences that indicates the extent to which our program has achieved its objectives. For each course we teach, we specify a set of outcomes, we want our students to possess at the end of the course. The assessment of PO is done using various tools. The attainments of each PO through these tools are summarized below.



Direct Assessment methods

The CO attainment for all the students for a particular course in which CO attainment is satisfied is considered. With reference to CO-PO mapping, the correlation level (3 or 2 or 1) ie: Slight (1), Moderate (2) and Substantial (3) for the satisfying COs are taken. The weighted average of each PO attained for each course is calculated. This represents the Direct attainment of each PO.



The process for assessment of PO attainment through CO

Batch(2017-2021)			
Reference	Level 1	Level 2	Level 3
Description	**60% of students securing more than 50 marks**	**70% of students securing more than 50 marks**	**80% of students securing more than 50 marks**
Level	1	**2**	**3**
Correlate with PO Matrix	1 or 2 or 3	1 or 2 or 3	1 or 2 or 3

Batch(2018-2022)			
Reference	Level 1	Level 2	Level 3
Description	**65% of students securing more than 50 marks**	**75% of students securing more than 50 marks**	**85% of students securing more than 50 marks**
Level	1	**2**	**3**
Correlate with PO Matrix	1 or 2 or 3	1 or 2 or 3	1 or 2 or 3

Batch(2019-2023)			
Reference	Level 1	Level 2	Level 3
Description	**65% of students securing more than 50 marks**	**75% of students securing more than 50 marks**	**85% of students securing more than 50 marks**
Level	1	**2**	**3**
Correlate with PO Matrix	1 or 2 or 3	1 or 2 or 3	1 or 2 or 3

PO Attainment=SUM PRODUCT OF (PO level x CO Attained) /Sum of CO attained

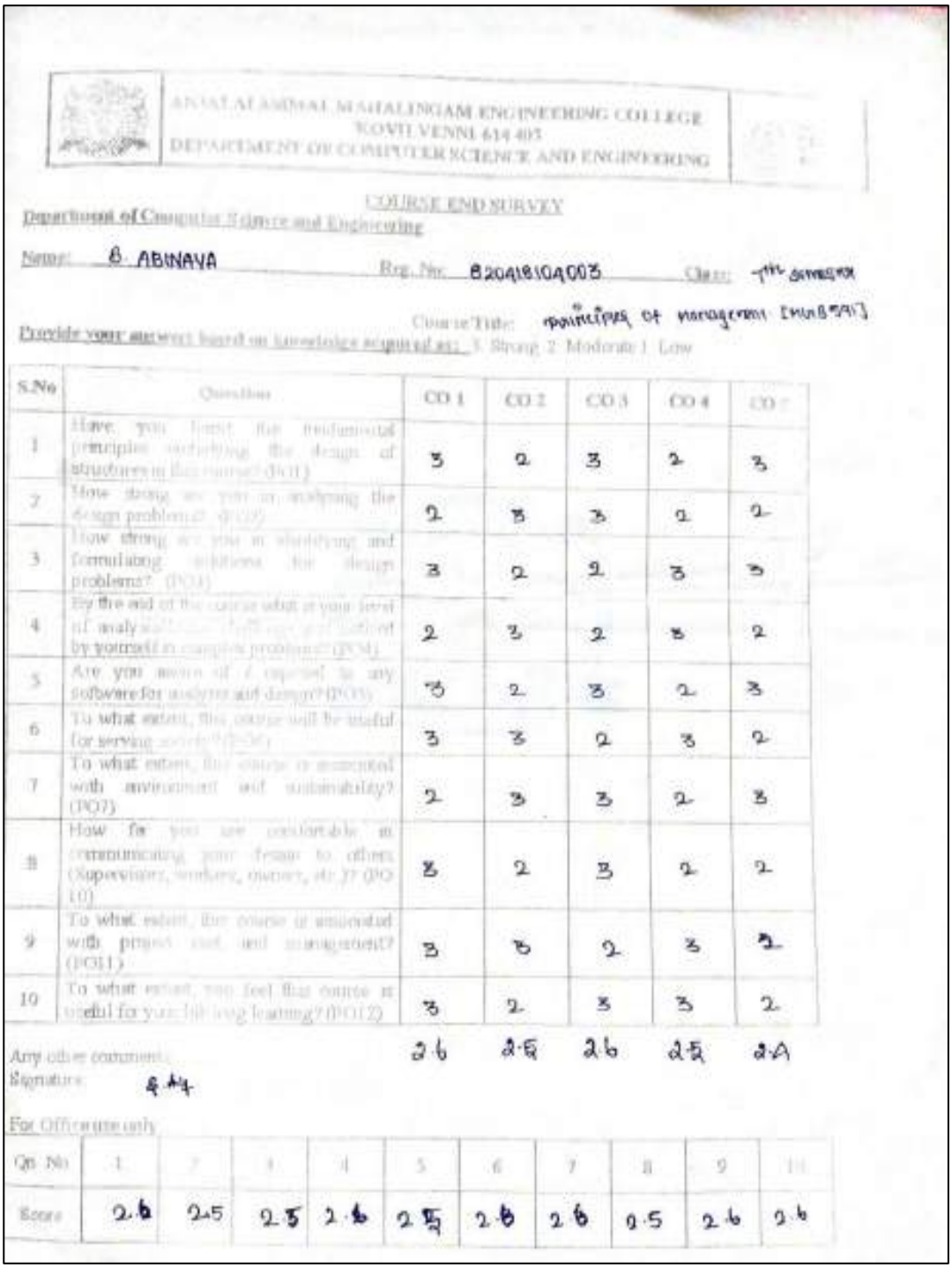
POs	**1**		**2**		**3**		**6**		**7**		**10**		**11**		**12**	
	Mapped	**Attained**	**Mapped**	**Attained**	**Mapped**	**Attained**	**Mapped**	**Attained**	**Mapped**	**Attained**	**Mapped**	**Attained**	**Mapped**	**Attained**	**Mapped**	**Attained**
CO1	3	3	3	3	2	3	1	3			2	3	3	3	3	3
CO2	3	2	3	2	3	2	1	2	2	2	2	2	3	2	3	2
CO3	3	3	3	3	2	3	1	3	1	3	2	3	2	3	2	3
CO4	3	1	3	1	3	1	1	1	3	1	2	1	3	1	3	1
CO5	3	2	3	2	3	2	1	2	3	2	2	2	3	2	3	2
Sum	15	11	15	11	13	11	5	11	9	8	10	11	14	11	14	11
Sum product		33		33		27		11		16		22		30		30
Attainment		2.2		2.2		2.08		2.2		1.78		2.2		2.14		2.14

Indirect Assessment methods

- **Course Exit survey:** At the end of every semester, students give feedback for the course taught to them. In this feedback survey, students tell how effective course was, in order to achieve POs.
- **Program exit survey:** Program exit survey is conducted to analyze the PO attainment at the end of the program, which evaluate the success of Program in providing students with the opportunities to achieve the Program outcome every year. An analysis will be carried out every year on the attainment of PO. Questionnaire is prepared covering all 12 PO's and the students are asked to submit their self-assessment/ level of knowledge acquired on a 5 point scale. From the above, weighted average of all the students is calculated, which represents the indirect attainment of PO. The above weighted average of all the students is calculated, which represents the indirect attainment of PO is calculated.
- **Faculty Survey:** Selected faculty members (Class Committee Chairperson, Faculty Advisor, Class Co-ordinator and Project Co-ordinators are asked to submit the level of PO attainment of students on a 5 point scale basis.
- **Alumni Survey:** It is planned to collect information about program satisfaction, from graduate's end. – after 2 years. A questionnaire will be prepared containing all the aspects of the program attainment and the feedback will be collected from the alumni of the university. Based on the feedback the PO assessment will be enhanced.

The mapping of various indirect methods of assessment towards the attainment of PO and PSO are done by considering the tools Course End Survey, Programe Exit Survey, Faculty Survey and Alumni Survey.

Overall Attainment = (0.8*Direct Attainment+0.2* Indirect Attainment)



ANNAI AMMAL MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI 614 403
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE END SURVEY

Department of Computer Science and Engineering

Name: S. ABINAVA Reg. No: 820418104003 Class: 4th semester

Course Title: Principles of management [HUM551]

Provide your answer based on knowledge acquired as: 3. Strong 2. Moderate 1. Low

S.No	Question	CO 1	CO 2	CO 3	CO 4	CO 5
1	Have you learnt the mathematical principles underlying the design of structures in this course? (PO1)	3	2	3	2	3
2	How strong are you in analysing the design problems? (PO2)	2	3	3	2	2
3	How strong are you in identifying and formulating solutions for design problems? (PO3)	3	2	2	3	3
4	By the end of the course what is your level of analysis [illegible] by yourself in complex problems? (PO4)	2	3	2	3	2
5	Are you aware of / exposed to any software for analysis and design? (PO5)	3	2	3	2	3
6	To what extent, this course will be useful for serving society? (PO6)	3	3	2	3	2
7	To what extent, this course is associated with environment and sustainability? (PO7)	2	3	3	2	3
8	How far you are comfortable in communicating your results to others (Supervisors, workers, owners, etc.)? (PO 10)	3	2	3	2	2
9	To what extent, this course is associated with project cost and management? (PO11)	3	3	2	3	2
10	To what extent, you feel this course is useful for your life long learning? (PO12)	3	2	3	3	2
		2.6	2.5	2.6	2.5	2.4

Any other comments:

Signature: S. A.

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Qn. No	1	2	3	4	5	6	7	8	9	10
Score	2.6	2.5	2.5	2.6	2.5	2.6	2.6	2.5	2.6	2.6

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE

KOVILVENNI-614 403

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

GRADUATE EXIT SURVEY

PO. No	Description of PO	Exit Survey Question	5	4	3	2	1
1	Engineering knowledge	To what extent you have applied the fundamental principles of science for engineering applications?		✓			
2	Problem analysis	How strong are you in analysing the design problems?		✓			
3	Design/development of solutions	How strong you are in identifying, formulating /designing solutions for problems?		✓			
4	Conduct investigations of complex problems	By the end of the program, what is your level of comfort in investigating complex problems?		✓			
5	Modern tool usage	How familiar you are touse modern software for analysis and design?		✓			
6	The engineer and society	To what extent, this program will be useful for serving society?	✓				
7	Environment and sustainability	To what extent, this program is associated with environment and sustainability?	✓				
8	Ethics	How far you will take solutions for problems based on ethical considerations?	✓				
9	Individual and team work	To what extent, this program is associated with team work spirit than Individuality?		✓			
10	Communication	How far you are comfortable in communicating your concepts to others (Supervisors, workers, owners, etc.)?	✓				
11	Project management and finance	To what extent, this program is helpful with project cost and management?		✓			
12	Life-long learning	To what extent, you feel this program is useful for your life long learning?		✓			

820418104012 – G.Balamurugan

24.06.2022

G.Balamurugan.

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KOVILVENNI-614 403
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

FACULTY SURVEY

Name of the Faculty: Dr. G. Nanthakumar Batch: 2018 – 2022

PO. No	Description of PO	Survey Question	5	4	3	2	1
1	Engineering knowledge	To what extent students have applied the fundamental principles of science for engineering applications?		✓			
2	Problem analysis	How strong students are in analysing the design problems?		✓			
3	Design/ development of solutions	How strong students are in identifying, formulating /designing solutions for problems?	✓				
4	Conduct investigations of complex problems	By the end of the program, what is student's level of comfort in investigating complex problems?		✓			
5	Modern tool usage	How familiar students are to use modern software for analysis and design?	✓				
6	The engineer and society	To what extent, this program will be useful for serving society?		✓			
7	Environment and sustainability	To what extent, this program is associated with environment and sustainability?	✓				
8	Ethics	How far students will take solutions for problems based on ethical considerations?	✓				
9	Individual and team work	To what extent, this program is associated with team work spirit than individuality?		✓			
10	Communication	How far you are comfortable in communicating your concepts to others (Supervisors, workers, owners, etc.)?	✓				
11	Project management and finance	To what extent, this program is helpful with project cost and management?	✓				
12	Life-long learning	To what extent, you feel this program is useful for your life long learning?			✓		

Signature G.NT

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Qn .No	1	2	3	4	5	6	7	8	9	10	11	12
Score												

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KOVILVENNI-614 403
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ALUMNI SURVEY

S.No	Question	3	2	1
1	How did you get your first job?	Campus	Others ✓	Unemployed
2	How comfortable, you were, during the initial period of your career?	Excellent ✓	Good	Poor
3	Specify your progress in professional career	Excellent ✓	Good	Poor
4	To what extent, mathematics and science helps you in analyzing problems?	Strong ✓	Moderate	Low
5	Specify your level of proficiency in analyzing new problems	Strong	Moderate ✓	Low
6	Specify your status of giving solutions to common problems	Excellent	Good ✓	Poor
7	Specify your status of giving solutions to complex problems	Strong	Moderate ✓	Low
8	Are you comfortable to use new software tools after your graduation?	Strong	Moderate ✓	Low
9	In what ways, your studies help to serve society?	Good ✓	Average	Poor
10	Are you considering environmental aspects during construction?	Strong ✓	Moderate	Low
11	Are you taking decisions based on ethical considerations during your professional career?	Strong ✓	Moderate	Low
12	Within your organization, how satisfied you are, with reference to teamwork?	Strong ✓	Moderate	Low
13	How satisfied you are, in communicating concepts and design based on your UG studies?	Strong ✓	Moderate	Low
14	Are you comfortable to manage construction activities within the scheduled period and within the budget?	Strong ✓	Moderate	Low
15	Have you undergone / interested in any short term course?	Yes ✓	May be	No

Name of student: R. Aruna Reg. No: 820416104022

Any other comments: Tata Consultancy Services Signature:

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Qn.No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Score															

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3.3.2. Record the attainment of Course Outcomes of all courses with respect to set attainment levels (40)

PO Attainment 2019-2023

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
C101-HS8151									2.9	2.9		2.9			
C102- MA8151	2.53	2.53										2.53			
C103-PH8151	2.7	2.7										2.7			
C104-CY8151	2.53	2.53										2.53			
C105- GE8151	0.71	0.71	0.71		0.71							0.71	0.71	0.71	0.71
C106-GE8152	2.83	2.83								2.83					
C107-GE8161	2.89	2.89	2.89					2.89	2.89	2.89		2.89	2.89	2.89	2.89
C108- BS8161	2.89								2.89						
C109-HS8251									2.54	2.54		2.54			
C110-MA8251	0.59	0.59										0.56	0.59	0.59	
C111-PH8252	2.51	2.51										2.51	2.50		
C112-BE8255	2.17	2.17	2.17												
C113-GE8291	2.43	2.43										2.43			
C114-CS8251	2.56	2.56	2.56					2.56	2.56	2.56		2.56	2.57	2.55	2.60
C115-GE8261	2.89				2.88	2.88			2.89	2.89					
C116-CS8261	2.85	2.85	2.85					2.85	2.85	2.85		2.85	2.85	2.85	2.85
C201-MA8351	2.63	2.63	2.63						2.63				2.63	2.63	
C202- CS8351	2.77	2.77	2.77										2.78	2.77	2.78
C203- CS8391	2.76	2.76	2.76										2.76	2.76	2.76

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C204- CS8392	2.76	2.76	2.76									2.76	2.76	2.76
C205- EC8395	2.64	2.64	2.63									2.64	2.64	2.64
C206- CS8381	2.8	2.8	2.8					2.8	2.8	2.8		2.8	2.8	2.8	2.8
C207 -CS8383	2.93	2.93	2.93					2.93	2.93	2,93		2.93	2.93	2.93	2.93
C208- CS8382	2.66	2.66	2.66			2.66		2.66	2.66	2.66		2.66	2.66	2.66	2.66
C209-HS8381								2.73	2.73	2.73		2.73			
C210 -MA8402	2.63	2.63	2.63									2.63	2.63	2.63	
C211- CS8491	2.93	2.93	2.93										2.94	2.93	2.94
C212- CS8492	2.84	2.84	2.84										2.84	2.84	2.84
C213 -CS8451	2.32	2.32	2.32						2.32	2.32		2.32	2.32	2.32	2.32
C214- CS8493	1.82	1.82	1.82										1.82	1.82	1.82
C215- CS8494	1.82	1.84	1.82		1.82	1.82		1.82	1.82	1.8		1.8	1.82	1.82	1.82
C216- CS8481	2.86	2.86	2.86					2.86	2.86	2.86		2.86	2.86	2.86	2.86
C217- CS8461	2.69	2.69	2.69					2.69	2.69	2.69		2.69	2.69	2.69	2.69
C218- HS8461								2.66	2.66	2.66		2.66			
C301- MA8551	2.4	2.4	2.40						2.4				2.4	2.40	
C302- CS8591	2.44	2.44	2.44										2.44	2.42	2.46
C303- EC8691	2.44	2.44	2.44		2.44								2.44	2.41	2.44
C304- CS8501	2.52	2.52	2.52										2.52	2.52	
C305- CS8592	2.2	2.2	2.2			2.46							2.2	2.2	2.2

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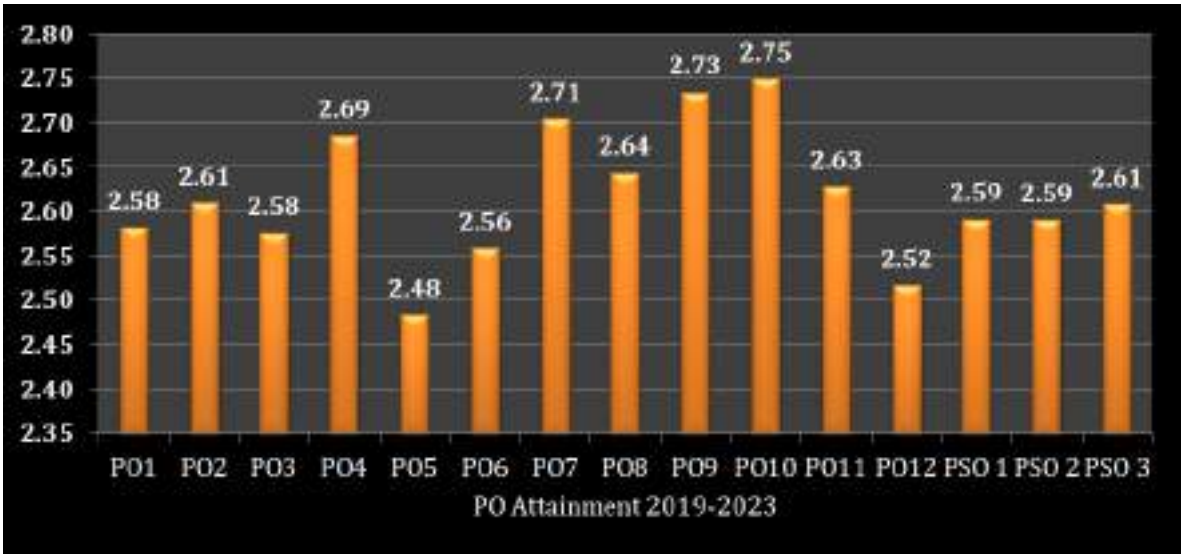
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C306- OEC552	2.33	2.31	2.33										2.34	2.33	2.36
C307- EC8681	2.96	2.96	2.96					2.96	2.96	2.96		2.96	2.96	2.96	2.96
C308- CS8582	2.94	2.93	2.94		2.94	2.94		2.94	2.94	2.94		2.94	2.94	2.93	2.94
C309- CS8581	2.80	2.80	2.8					2.80	2.8	2.80		2.80	2.80	2.80	2.80
C310- CS8651	2.56	2.56	2.56		2.56				2.56				2.57	2.62	2.62
C311- CS8691	2.34	2.35	2.34										2.34	2.35	2.34
C312- CS8601	2.4	2.4	2.4										2.41	2.4	2.43
C313- CS8602	2.72	2.72	2.72					2.72	2.72	2.72		2.72	2.72	2.72	2.72
C314- CS8603	1.33	1.33	1.33										1.33	1.34	1.33
C315- CS8075	1.90	1.80	1.80										1.80	1.80	1.80
C316- CS8661	2.92	2.92	2.92		2.92			2.92	2.92	2.92		2.92	2.92	2.92	2.92
C317- CS8662	2.96	2.96	2.96					2.96	2.96	2.96		2.96	2.96	2.96	2.96
C318- CS8611	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
C319- HS8581						2.73				2.73		2.73			
C401- MG8591	2.35	2.35	2.37								2.37		2.38	2.37	2.38
C402- CS8792	2.93	2.93	2.93										2.94	2.93	2.94
C403 -CS8791	2.64	2.62	2.58										2.63	2.55	2.62
C404-OME752	1.94	1.94	1.94		1.94							1.94	1.94	1.94	1.94
C405- CS8091	2.37	2.4	2.37		2.4				2.34	2.34			2.35	2.44	2.43
C406- HX8001	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
C407- CS8711	2.93	2.93	2.93		2.93			2.93	2.70	2.93		2.930	2.93	2.93	2.93
C408- IT8761	2.96	2.96	2.96		2.96			2.96	2.96	2.96		2.96	2.96	2.96	2.96

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C409- GE8076	2.78	2.75	2.75					2.72	2.72	2.72		2.72	2.72	2.72	2.72
C410- CS8080	2.74	2.74	2.74										2.75	2.74	2.75
C411- CS8811	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73
Direct Attainment	2.52768	2.51204	2.54460	2.85667	2.50500	2.67333	2.85667	2.77957	2.71839	2.73679	2.73500	2.57125	2.51471	2.51360	2.55978
Indirect Attainment	2.8	3.0	2.7	2.0	2.4	2.1	2.1	2.1	2.8	2.8	2.2	2.3	2.9	2.9	2.8
Overall Attainment	2.5821	2.6096	2.5757	2.6853	2.4840	2.5587	2.7053	2.6437	2.7347	2.7494	2.6280	2.5170	2.5918	2.5909	2.6078



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PO Attainment 2018-2022

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
C101-HS8151									2.94	2.94		2.94			
C102-MA8151	2.7	2.7										2.7			
C103-PH8151	2.3	2.3										2.3			
C104-CY8151	2.35	2.35										2.35			
C105- GE8151	2.62	2.62	2.62		2.62							2.65	2.62	2.62	2.62
C106-GE8152	2.75	2.75								2.75					
C107-GE8161	2.73	2.73	2.73					2.73	2.73	2.73		2.73	2.73	2.73	2.73
C108- BS8161	2.93								2.93						
C109-HS8251									2.92	2.92		2.92			
C110-MA8251	2.70	2.70										2.70	2.78	2.78	
C111-PH8252	2.87	2.87											1.79		
C112-BE8255	1.52	1.52	1.52												
C113-GE8291	2.97	2.97										2.97			
C114-CS8251	2.62	2.62	2.62					2.62	2.62	2.62		2.62	2.62	2.62	2.62
C115-GE8261	2.93				2.93	2.93			2.93	2.93					
C116-CS8261	2.73	2.73	2.73					2.73	2.73	2.73		2.73	2.73	2.73	2.73
C201-MA8351	2.76	2.76	2.76						2.76				2.76	2.76	
C202- CS8351	2.64	2.64	2.64										2.65	2.64	2.65
C203- CS8391	2.6	2.6	2.6										2.6	2.6	2.6
C204- CS8392	2.74	2.74	2.75										2.75	2.74	2.75

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Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
C205- EC8395	1.36	1.36	1.36										1.36	1.36	1.36
C206- CS8381	2.96	2.96	2.96					2.96	2.96	2.96		2.96	2.96	2.96	2.96
C207 -CS8383	2.79	2.79	2.79					2.78	2.78	2.78		2.78	2.78	2.78	2.78
C208- CS8382	2.66	2.66	2.66			2.66		2.66	2.66	2.66		2.66	2.66	2.66	2.66
C209-HS8381								2.73	2.73	2.73		2.73			
C210 - MA8402	2.4	2.4	2.42									2.4	2.41	2.4	
C211- CS8491	2.59	2.59	2.59										2.6	2.62	2.6
C212- CS8492	2.48	2.48	2.48										2.49	2.48	2.49
C213 -CS8451	2.64	2.64	2.64						2.64	2.64		2.64	2.65	2.64	2.65
C214- CS8493	1.63	1.63	1.63										1.63	1.63	1.63
C215- CS8494	2.56	2.56	2.56		2.56	2.56		2.56	2.56	2.60		2.6	2.57	2.56	2.57
C216- CS8481	2.97	2.97	2.97					2.97	2.97	2.97		2.97	2.73	2.73	2.73
C217- CS8461	2.93	2.93	2.93					2.93	2.93	2.93		2.93	2.93	2.93	2.93
C218- HS8461								2.66	2.66	2.66		2.66			
C301- MA8551	2.76	2.76	2.76						2.76				2.76	2.76	
C302- CS8591	2.93	2.93	2.93										2.94	2.93	2.94
C303-EC8691	2.76	2.76	2.76		2.76								2.76	2.76	2.77
C304- CS8501	2.78	2.74	2.76										2.76	2.76	

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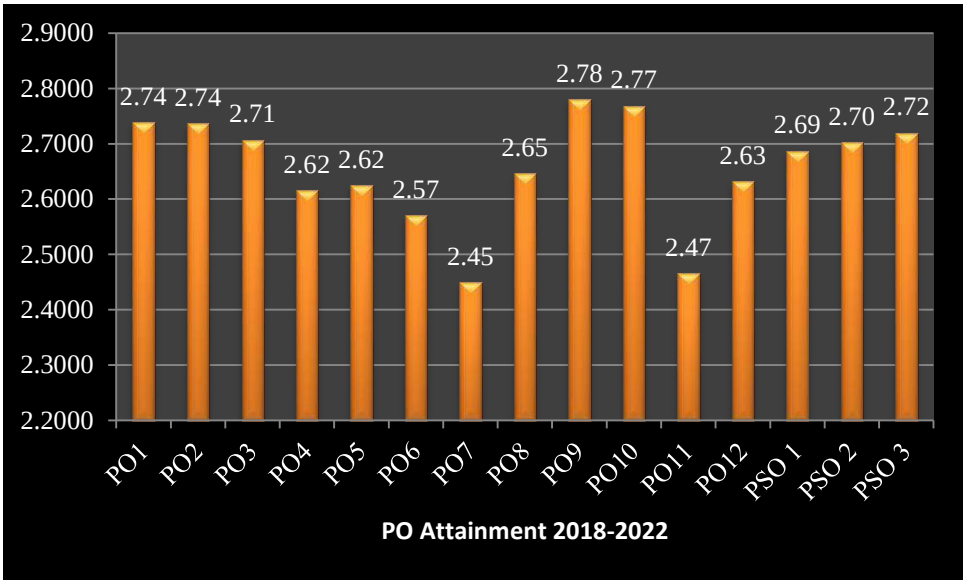
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Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
C305- CS8592	2.82	2.84	2.84			2.85							2.84	2.84	2.84
C306-OEC552	2.93	2.93	2.93										2.94	2.93	2.94
C307- EC8681	2.96	2.96	2.96					2.96	2.96	2.96		2.96	2.96	2.96	2.96
C308- CS8582	2.94	2.93	2.94		2.94	2.94		2.94	2.94	2.94		2.94	2.94	2.93	2.94
C309- CS8581	2.96	2.96	2.96					2.96	2.96	2.96		2.96	2.96	2.96	2.96
C310- CS8651	2.76	2.76	2.76		2.76				2.76				2.74	2.7	2.7
C311- CS8691	2.93	2.93	2.93										2.94	2.93	2.94
C312- CS8601	2.93	2.93	2.93										2.94	2.93	2.94
C313- CS8602	2.91	2.91	2.91					2.91	2.91	2.91		2.91	2.92	2.91	2.92
C314- CS8603	2.68	2.73	2.72										2.72	2.74	2.72
C315- CS8075	2.78	2.76	2.77										2.76	2.76	2.76
C316- CS8661	2.64	2.64	2.64		2.64			2.64	2.64	2.64		2.64	2.64	2.64	2.64
C317- CS8662	2.94	2.94	2.94					2.94	2.94	2.94		2.94	2.94	2.94	2.94
C318- CS8611	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91
C319- HS8581						2.73				2.73		2.73			
C401-MG8591	2.6	2.59	2.6								2.57		2.61	2.6	2.61
C402- CS8792	2.52	2.52	2.52										2.53	2.52	2.53
C403 -CS8791	2.22	2.28	2.3										2.27	2.32	2.3
C404- OME752	2.12	2.42	2.37		2.12	2.33	2.12	2.42	2.37		2.12	2.33	2.12	2.37	2.12

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C405- CS8091	2.31	2.31	2.31		2.31				2.31	2.31			2.32	2.3	2.32
C406- CS8083	2.94	2.94	2.94										2.95	2.94	2.95
C407- CS8711	2.94	2.94	2.94		2.94			2.94	2.94	2.94		2.94	2.94	2.94	2.94
C408- IT8761	2.62	2.62	2.62		2.62			2.62	2.62	2.62		2.62	2.62	2.62	2.62
C409- GE8076								2.69				2.69	2.7	2.69	2.7
C410- CS8080	2.63	2.62	2.63										2.64	2.63	2.64
C411- CS8811	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73
Direct Attainment	2.67338	2.67011	2.65869	2.82000	2.68000	2.73778	2.58667	2.78243	2.77553	2.78530	2.58250	2.76520	2.65894	2.67852	2.67436
Indirect Attainment	3.0	3.0	2.9	1.8	2.4	1.9	1.9	2.1	2.8	2.7	2.0	2.1	2.8	2.8	2.9
Overall Attainment	2.7387	2.7361	2.7070	2.6160	2.6240	2.5702	2.4493	2.6459	2.7804	2.7682	2.4660	2.6322	2.6872	2.7028	2.7195



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PO Attainment 2017-2021

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
C101-HS8151								3	3	3		3			
C102- MA8151	2	2	1.97						2				2	2	
C103-PH8151	2.75	2.75	2.75												
C104-CY8151	3	3	3												
C105- GE8151	2.62	2.62	2.62		2.62							2.65	2.62	2.62	2.62
C106-GE8152	1.48	1.48								1.48					
C107-GE8161	2.73	2.73	2.73					2.73	2.73	2.73		2.73	2.73	2.73	2.73
C108- BS8161	2.84	2.84	2.84					2.84	2.84	2.84					
C109-HS8251								3	3	3		3			
C110-MA8251	2.78	2.78	2.78						2.78				2.78	2.78	
C111-PH8252	1.79	1.79	1.79										1.79		
C112-BE8255	1.05	1.05	1.05												
C113-GE8291	3	3	3					3	3	3		3			
C114-CS8251	2.62	2.62	2.62					2.62	2.62	2.62		2.62	2.62	2.62	2.62
C115-GE8261	3	3	3	3	3	3		3	3	3		3			
C116-CS8261	2.73	2.73	2.73					2.73	2.73	2.73		2.73	2.73	2.73	2.73
C201-MA8351	2.12	2.12	2.12						2.12				2.13	2.14	
C202- CS8351	1.48	1.48	1.48										1.48	1.50	1.48
C203- CS8391	1.45	1.45	1.45										1.45	1.45	1.45

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Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
C204- CS8392	2.69	2.69	2.69										2.69	2.69	2.69
C205- EC8395	0.70	0.71	0.72										0.72	0.72	0.72
C206- CS8381	2.73	2.73	2.73					2.73	2.73	2.73		2.73	2.73	2.73	2.73
C207 -CS8383	2.93	2.93	2.93					2.93	2.93	2,93		2.93	2.93	2.93	2.93
C208- CS8382	2.66	2.66	2.66			2.66		2.66	2.66	2.66		2.66	2.66	2.66	2.66
C209-HS8381								2.73	2.73	2.73		2.73			
C210 -MA8402	1.38	1.30	1.20									1.36	1.36	1.31	
C211- CS8491	2.70	2.70	2.70										2.69	2.71	2.69
C212- CS8492	2.12	2.12	2.12										2.12	2.12	2.12
C213 -CS8451	2.08	2.08	2.08						2.08	2.08		2.08	2.08	2.08	2.08
C214- CS8493	1.72	1.72	1.72										1.72	1.72	1.72
C215- CS8494	2.00	2.00	2.00		2.00	2.00		2.00	2.00	2.01		2.01	2.00	2.00	2.00
C216- CS8481	2.73	2.73	2.73					2.73	2.73	2.73		2.73	2.73	2.73	2.73
C217- CS8461	2.93	2.93	2.93					2.93	2.93	2.93		2.93	2.93	2.93	2.93
C218- HS8461								2.66	2.66	2.66		2.66			
C301- MA8551	2.73	2.73	2.70						2.73				2.72	2.70	
C302- CS8591	2.69	2.69	2.7										2.68	2.68	2.68
C303- EC8691	0.58	0.58	0.58		0.58								0.58	0.57	0.57

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

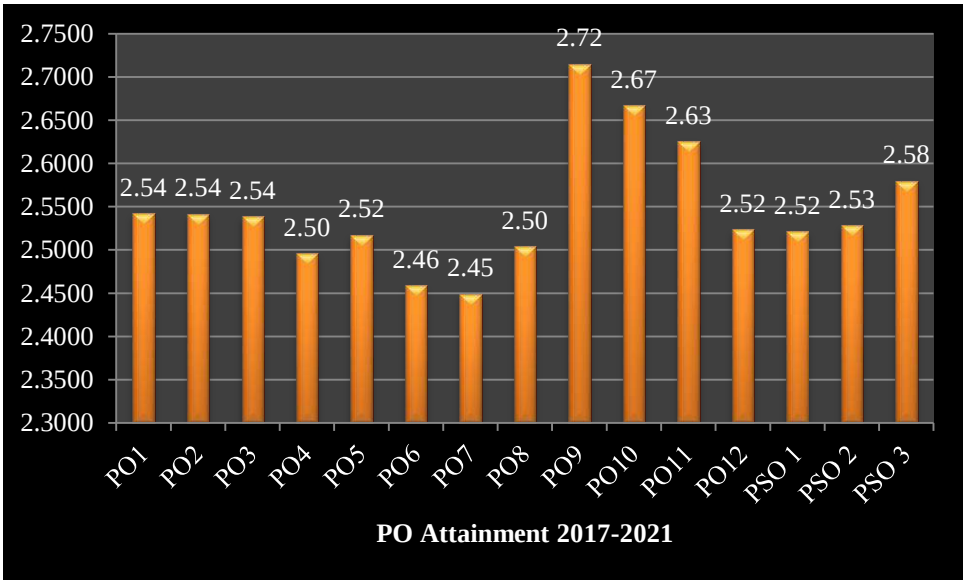
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Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
C304- CS8501	1.73	1.73	1.73										1.72	1.68	
C305- CS8592	2.52	2.51	2.49			2.48							2.52	2.51	2.52
C306- OEC552	2.53	2.54	2.53										2.54	2.53	2.56
C307- EC8681	2.69	2.69	2.69					2.69	2.69	2.69		2.69	2.69	2.69	2.69
C308- CS8582	2.78	2.77	2.78		2.78	2.78		2.78	2.78	2.78		2.78	2.78	2.77	2.78
C309- CS8581	2.50	2.50	2.51					2.50	2.51	2.50		2.50	2.50	2.50	2.50
C310- CS8651	2.72	2.72	2.72		2.72				2.72				2.73	2.74	2.74
C311- CS8691	2.36	2.37	2.41										2.37	2.41	2.40
C312- CS8601	2.72	2.72	2.72										2.72	2.72	2.72
C313- CS8602	2.76	2.76	2.76					2.70	2.70	2.70		2.70	2.80	2.80	2.80
C314- CS8603	2.58	2.58	2.60										2.57	2.57	2.57
C315- CS8075	2.80	2.80	2.90										2.80	2.80	2.80
C316- CS8661	2.73	2.73	2.76		2.73			2.73	2.73	2.73		2.73	2.73	2.73	2.73
C317- CS8662	2.66	2.66	2.67					2.66	2.67	2.66		2.66	2.66	2.66	2.66
C318- CS8611	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.66	2.73	2.73	2.73	2.73	2.73	2.73
C319- HS8581						2.73				2.73		2.73			
C401- MG8591	2.76	2.76	2.76								2.77		2.76	2.76	2.76
C402- CS8792	2.76	2.76	2.76										2.76	2.76	2.76
C403 -CS8791	2.76	2.73	2.75										2.77	2.76	2.77

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Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
C404-OME752	2.60	2.68	2.78		3	2.73	2.6	2.68	2.78		3	2.73	3	2.80	3.00
C405- CS8091	2.76	2.76	2.76		2.76				2.80	2.80			2.76	2.80	2.76
C406- CS8083	2.75	2.72	2.75										2.74	2.73	2.73
C407- CS8711	2.73	2.73	2.73		2.73			2.72	2.70	2.73		2.725	2.73	2.73	2.73
C408- IT8761	2.73	2.73	2.73		2.73			2.73	2.73	2.73		2.73	2.73	2.73	2.73
C409- IT8073	2.74	2.76	2.76					2.76					2.75	2.78	2.74
C410- CS8080	2.78	2.75	2.75										2.78	2.76	2.71
C411- CS8811	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73
Direct Attainment	2.42	2.427	2.448	2.82	2.546	2.64	2.68	2.72	2.69	2.65	2.80	2.65	2.45	2.46	2.50
Indirect Attainment	3.0	3.0	2.9	1.2	2.4	1.7	1.5	1.6	2.8	2.7	1.9	2.0	2.8	2.8	2.9
Overall Attainment	2.54	2.54	2.53	2.49	2.51	2.45	2.44	2.50	2.71	2.66	2.62	2.52	2.52	2.52	2.58



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CRITERION 4

STUDENTS' PERFORMANCE

CRITERION 4	STUDENTS' PERFORMANCE	150

4. STUDENTS' PERFORMANCE (150)

Item	2023 - 2024 (CAY)	2022 - 2023 (CAY m1)	2021 - 2022 (CAY m2)	2020 - 2021 (CAY m3)	2019 - 2020 (CAY m4)	2018 - 2019 (CAY m5)	2017 - 2018 (CAY m6)	2016 - 2017 (CAY m7)	2015 - 2016 (CAY m8)
Sanctioned intake of the program (*N*)	90	90	90	90	90	90	90	90	90
Total number of students admitted in first year *minus* number of students migrated to other programs/institutions plus no. of students migrated to this program (*N*1)	94	93	82	83	83	80	75	85	76
Number of students admitted in 2nd year in the same batch via lateral entry (*N*2)	0	5	6	7	2	1	1	6	4
Separate division (*N3)*	0	0	0	0	0	0	0	0	0
Total number of students admitted in the Program (*N*1 + *N*2+ N3)	94	98	88	90	85	81	76	91	80

Table 4.1.1 Total number of students admitted in the Program

Year of entry	*Total No of students admitted in the program (N1 + N2 + N3)*	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I Year	II Year	III Year	IV Year
(2023-24)(CAY)	94(94+0+0)				
(2022-23)(CAYm1)	98(93+5+0)	69			
(2021-22)(CAYm2)	88(82+6+0)	43	34		
(2020-21)(CAYm3)	90(83+7+0)	83	56	44	
(2019-20) (LYG)	85 (83+2+0)	43	45	37	37
(2018-19)(LYGm1)	81 (80+1+0)	18	15	15	15
(2017-18)(LYGm2)	76 (75+1+0)	32	16	16	15
(2016-17)(LYGm3)	91 (85+6+0)	43	30	27	25
(2015-16) (LYGm4)	80(76+4+0)	48	42	38	17

Table 4.1.2 Number of students who have successfully graduated without backlogs in any semester/ year of study

Year of entry	*Total No of students admitted in the program (N1 + N2 + N3)*	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I Year	II Year	III Year	IV Year
(2023-24)(CAY)	94(94+0+0)				
(2022-23)(CAYm1)	98(93+5+0)	93			
(2021-22)(CAYm2)	88(82+6+0)	82	88		
(2020-21)(CAYm3)	90(83+7+0)	83	89	90	
(2019-20)(LYG)	85 (83+2+0)	83	85	84	78
(2018-19)(LYGm1)	81 (80+1+0)	80	81	81	81
(2017-18) (LYGm2)	76 (75+1+0)	75	76	76	74
(2016-17) (LYGm3)	91 (85+6+0)	85	91	91	90
(2015-16) (LYGm4)	80(76+4+0)	76	80	80	66

Table 4.1.3 Number of students who have successfully graduated in stipulated period of study

4.1 Enrolment Ratio (20)

Academic Year	N (From Table 4.1.1)	N1 (From Table 4.1.1)	Enrollment Ratio [(N1/N)*100]
2023-24 (CAY)	90	94	100
2022-23 (CAYm1)	90	93	100
2021-22 (CAYm2)	90	82	91.11
2020-21 (CAYm3)	90	83	92.22
2019-20 (CAYm4)	90	83	92.22

Table 4.1.4 Enrolment Ratio

Average [(ER1 + ER2 + ER3) / 3]: 97.04

4.2 Success Rate in the stipulated period of the program(40)

4.2.1 Success rate without backlogs in any semester/year of study (25)

Item	Latest Year of Graduation, LYG (2019-20)	Latest Year of Graduation, LYGm1 (2018-19)	Latest Year of Graduation minus 1, LYGm2 (2017-18)	Latest Year of Graduation minus 2 LYGm3 (2016-17)	Latest Year of Graduation minus 2 LYGm4 (2015-2016)
X Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	85	81	76	91	80
Y Number of students who have graduated without backlogs in the stipulated period	37	15	15	25	17
Success Index [SI=Y/X]	0.44	0.18	0.20	0.27	0.21
Average SI[(SI1 + SI2 + SI3) / 3] :	0.27				

Table 4.2.1 Success rate without backlogs in any semester/year of study

Average SI [(SI1 + SI2 + SI3) / 3]: 0.27
Assessment [25 * Average SI]: 6.75

4.2.2 Success rate in stipulated period of study (15)

Item	Latest Year of Graduation, LYG (2019-20)	Latest Year of Graduation minus 1, LYGm1 (2018-19)	Latest Year of Graduation minus 2 LYGm2 (2017-18)	Latest Year of Graduation minus 3 LYGm3 (2016-17)	Latest Year of Graduation minus 4 LYGm4 (2015-16)
X Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	85	81	76	91	80
Y Number of students who have graduated in the stipulated period	78	81	74	90	66
Success Index [SI = Y / X]	0.92	1.0	0.97	0.99	0.82
Average Success Index	**0.96**				

Table 4.2.2 Success rate in stipulated period of study

Average SI[(SI1 + SI2 + SI3) / 3]: 0.96
Assessment [15 * Average SI] :14.4

Note: If 100% students clear without any backlog then also total marks scored will be 40 as both 4.2.1 & 4.2.2 will be applicable simultaneously.

4.3 Academic Performance in Third Year(15)

Academic Performance	CAYm3 (2020-21)	LYG (2019-20)	LYGm1 (2018-19)	LYGm2 (2017-18)	LYGm3 (2016-17)
Mean of CGPA or Mean Percentage of all successful students (X)	7.74	8.07	7.72	7.39	7.38
Total no. of successful students (Y)	90.00	84.00	81.00	76.00	91.00
Total no. of students appeared in the examination (Z)	90.00	84.00	81.00	76.00	91.00
API = x* (Y/Z)	7.74	8.07	7.72	7.39	7.38
Average API = (AP1 + AP2 + AP3)/3	**7.84**				

Table 4.3 Academic Performance in Third Year

Average API [(AP1 + AP2 + AP3)/3]: 7.84 Assessment [1.5 * Average API]: 11.76

4.4 Academic Performance in Second Year(15)

Academic Performance	CAYm2 (2021-22)	CAYm3 (2020-21)	LYG (2019-20)	LYGm1 (2018-19)	LYGm2 (2017-18)
Mean of CGPA or Mean Percentage of all successful students (X)	7.34	8.012	8.39	7.48	7.56
Total no. of successful students (Y)	88	89.00	85.00	81.00	76.00
Total no. of students appeared in the examination (Z)	88	89.00	85.00	81.00	76.00
API = X* (Y/Z)	7.34	8.012	8.39	7.48	7.56
Average API = (AP1 + AP2 + AP3)/3	**7.914**				

Table 4.4 Academic Performance in Second Year

Average API [(AP1 + AP2 + AP3)/3]: 7.914 Assessment [1.5 * Average API]: 11.871

4.5 Placement, Higher Studies and Entrepreneurship (40)

Item	LYG (2019-20)	LYGm1 (2018-19)	LYGm2 (2017-18)	LYGm3 (2016-17)
Total No. of Final Year Students (N)	85	81	76	91
No. of students placed in companies or Government Sector (x)	51	71	52	55
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	1	2	6	5
No. of students turned entrepreneur in engineering/technology (z)	0	0	2	2
x + y + z =	52	73	60	62
Placement Index : (x + y + z)/N	0.61	0.901	0.79	0.68

Table 4.5 Placement, Higher Studies and Entrepreneurship

Average placement [(P1 + P2 + P3)/3]: 0.77 Assessment [40 * Average Placement]: 30.8

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Program Name:
Assessment Year Name: CAYm1

S. No.	Student Name	Enrollment No.	Employee Name	Appointment No.
1	ABITHARANI.A	820419104002	M/s Qspider,Chennai	AAMEC/CSE/22/QS01
2	ABURVA J	820419104003	M/s Qspider,Chennai	AAMEC/CSE/22/QS02
3	AJITH KUMAR .P	820419104004	M/s SAI TECHNOLOGY PRIVATE LTD,CHENNAI	AAMEC/CSE/22/ST01
4	AKSHAYA.G	820419104005	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS01
5	ARIVAZHAGAN S	820419104007	M/s SL LUMAX,CHENNAI	AAMEC/CSE/22/SL01
6	ASHIFA SHERENE.S	820419104009	M/s VERTICAL SOLUTIONS,Chennai	AAMEC/CSE/22/VS02
7	ATCHAYA R (SPORTS)	820419104010	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS03
8	DEEBU RUBIYA E	820419104013	M/s Qspider, Chennai	AAMEC/CSE/22/QS03
9	DEEPIKA G	820419104014	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS04
10	DESIKA T	820419104016	M/s Qspider, Chennai	AAMEC/CSE/22/QS04
11	DHARSHINI.J	820419104017	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS05
12	DHIVYA V	820419104019	M/s Vintorix, Chennai	AAMEC/CSE/22/VT01
13	DIVYASREE R	820419104021	M/s Boson Labs, USA	AAMEC/CSE/22/BL01
14	GOWTHAM E	820419104022	M/s CSG SOLUTIONS PRIVATE LTD,BANGALORE	AAMEC/CSE/22/CSG01
15	JEEVITHA N	820419104026	M/s Vintorix, Chennai	AAMEC/CSE/22/VT02
16	KARTHIKEYAN.A	820419104028	M/s SAI TECH, Chennai	AAMEC/CSE/22/ST02
17	KEERTHIKA R	820419104029	M/s Tata Consultancy Services Chennai	AAMEC/CSE/22/TCS01
18	MANIKANDAN R	820419104031	M/s SL LUMAX,CHENNAI	AAMEC/CSE/22/SL02
19	MANOSHREE T	820419104033	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS06
20	MOHAMED THAHIR S	820419104034	M/s Epsilon Carbon Pvt Ltd, Bellari ,Karnataka	AAMEC/CSE/22/EC01
21	MUKIL I	820419104037	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS07
22	MUTHULAKSHMI.M	820419104038	M/s Vintorix, Chennai	AAMEC/CSE/22/VT03
23	NANDHINI V	820419104039	M/s Boson Labs, USA	AAMEC/CSE/22/BL02
24	NAVEENKUMAR G	820419104042	M/s Seventh Sense Talent Solutions Ltd ,Chennai	AMEC/CSE/22/SST01
25	NISHANTHINI V	820419104044	M/s Qspider, Chennai	AAMEC/CSE/22/QS05
26	NITHISH E	820419104045	M/s SL LUMAX,Chennai	AAMEC/CSE/22/SL03
27	NITHYASHREE R	820419104046	M/s Boson Labs, USA	AAMEC/CSE/22/BL03
28	PEARARULSELVI S	820419104048	M/s Boson Labs, USA	AAMEC/CSE/22/BL04
29	PRAVIN A	820419104050	M/s ALPHA , SL LUMAX, Chennai	AAMEC/CSE/22/SL04

30	PREETHIYANGARA DEVI. A	820419104051	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS08
31	RAMJI.S	820419104053	M/s SL LUMAX, Chennai	AAMEC/CSE/22/SL05
32	RAMKUMAR R	820419104054	M/s SL LUMAX, Chennai	AAMEC/CSE/22/SL06
33	SAKTHI GANESH M	820419104055	M/s SL LUMAX, Chennai	AAMEC/CSE/22/SL07
34	SAMYUKTHASRI R M	820419104056	M/s Tata Consultancy Services Chennai	AAMEC/CSE/22/TCS02
35	SANMATHI R	820419104057	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS09
36	SANTHOSHINI M	820419104059	M/s Epsilon Carbon Pvt Ltd, Bellari ,Karnataka	AAMEC/CSE/22/EC02
37	SARANYA R	820419104061	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS10
38	SARASWATHI M	820419104062	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS11
39	SATHYA JAYASRI S	820419104064	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS12
40	SENTHIL RAJ R	820419104065	M/s SL LUMAX, Chennai	AAMEC/CSE/22/SL08
41	SRIVIDHYASRI R	820419104072	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS13
42	SUBASRI M	820419104074	Logirtha Technologies ,Chennai	AMEC/CSE/22/LOT01
43	SUDHARSAN S	820419104075	M/s Boson Labs, USA	AAMEC/CSE/22/BL05
44	SUGASHINI T	820419104076	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS14
45	VAISHNAVI P	820419104078	M/s VERTICAL SOLUTIONS, Chennai	AAMEC/CSE/22/VS15
46	VASANTH R	820419104079	M/s Maxvy Technologies, Bangalore	AMEC/CSE/22/MXT01
47	VEERENTHIRAN.S	820419104080	M/s SL LUMAX, Chennai	AAMEC/CSE/22/SL09
48	VENKADA SUBRAMANIAN	820419104082	M/s SAI TECH, Chennai	AAMEC/CSE/22/ST03
49	VIJITHRA P	820419104084	M/s Vertical Solutions, Chennai	AAMEC/CSE/22/VS16
50	VINOTHKUMAR M	820419104085	M/s Tata Consultancy Services Chennai	AAMEC/CSE/22/TCS03
51	VISHWAKUMAR K	820419104086	M/s SL LUMAX,Chennai	AAMEC/CSE/22/SL10

Table 4.5.1 Placement Details-Assessment Year Name: CAYm1

Higher Studies

S. No.	Student Name	Enrollment No.	Name of the Programme	Name of the College
1	SUBASRI M	820419104074	M.Tech (Data Science)	Sastra University

Table 4.5.2 Higher Studies Assessment Year Name: CAYm1

Assessment Year Name: CAYm2

S. No.	Student Name	Enrollment No.	Employee Name	Appointment No.
1.	R.Jayaprithvi	820418104029	M/s TCS, Chennai	AAMEC/CSE/22/TCS01
2.	G.Vaishnavi	820418104076	M/s TCS, Chenni	AAMEC/CSE/22/TCS02
3.	Arasu. T	820418104009	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS01
4.	Pragadeesh S	820418104050	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS02
5.	Hariharasudhan S	820418104024	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS03
6.	Viswanathan B S	820418104080	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS04
7.	BanuRithika R	820418104013	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS05
8.	Suganthi D	820418104072	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS06
9.	Jagadeesh M N	820418104028	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS07
10.	Rajeswari A	820418104053	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS08
11.	Abdullah Ansar	820418104001	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS09
12.	Arunprakash R	820418104010	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS10
13.	Shivakarthikeyan B	820418104065	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS11
14.	Serafin J	820418104060	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS12
15.	Balamurugan G	820418104012	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS13
16.	Meenatchi R	820418104040	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS14
17.	Rishi Kumar G	820418104054	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS15
18.	Naveena N	820418104047	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS16
19.	Sowndarya S V	820418104070	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/22/VTS17
20.	R.Pragadeeshwaran	820418104051	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI01
21.	K.Swetha	820418104074	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI02
22.	A.Gothandaraman	820418104022	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI03
23.	S.Karthick	820418104031	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI04
24.	S.Narendran	820418104044	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI05
25.	P.S.Mohamed Riswan Maliq	820418104042	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI06
26.	K.Kuralanban	820418104034	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI07

27.	S.M.Hema	820418104025	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI08
28.	R.Priyadharshini	820418104052	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI09
29.	S.ShijilSaikumar	820418104063	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI10
30.	S.Sakthi	820418104056	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI11
31.	T.Deepika	820418104016	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI12
32.	M.Varun	820418104077	M/s Sysarc Infomatix, Chennai	AAMEC/CSE/22/SI13
33.	Mahisha	820418104039	M.s Qspider, Chennai	AAMEC/CSE/22/QS01
34.	KeerthiKiran K.A	820418104032	M.s Qspider, Chennai	AAMEC/CSE/22/QS02
35.	Madhumitha Baskar	820418104036	M/s Webberax, Chennai	AAMEC/CSE/22/WB01
36.	AbinayaSekar	820418104003	M/s Webberax, Chennai	AAMEC/CSE/22/WB02
37.	ShaqteRam.B.	820418104062	M/s Webberax, Chennai	AAMEC/CSE/22/WB03
38.	Nikitha.S	820418104048	M/s Webberax, Chennai	AAMEC/CSE/22/WB04
39.	A.Parvatha Sri	820418104049	M/s BosanLabs, USA	AAMEC/CSE/22/BL01
40.	S.Kiruthiga	820418104033	M/s Bosan Labs, USA	AAMEC/CSE/22/BL02
41.	Maheshwari.S	820418104038	M/s Bosan Labs, USA	AAMEC/CSE/22/BL03
42.	R.Madhubala	820418104035	M/s Bosan Labs, USA	AAMEC/CSE/22/BL04
43.	Subathra R	820418104071	M/s Counterplot	AAMEC/CSE/22/CP01
44.	Durgadevi Jayakanthan	820418104020	M/s Counterplot	AAMEC/CSE/22/CP02
45.	Sulochana Ramanathan	820418104073	M/s Counterplot	AAMEC/CSE/22/CP03
46.	Karishmaa S Thivakaran	820418104030	M/s Counterplot	AAMEC/CSE/22/CP04
47.	Dinesh Kumar R P	820418104019	M/s Counterplot	AAMEC/CSE/22/CP05
48.	Navaseevagan N	820418104046	M/s Counterplot	AAMEC/CSE/22/CP06
49.	Natarajan S	820418104045	M/s Counterplot	AAMEC/CSE/22/CP07
50.	Sathiyan S	820418104058	M/s Counterplot	AAMEC/CSE/22/CP08
51.	SabariNath B	820418104055	M/s Counterplot	AAMEC/CSE/22/CP09
52.	Kuralanban K	820418104034	M M/s Aspire Systems, Chennai	AAMEC/CSE/22/AS01
53.	P.Deepak	820418104015	M/s Wipro, Chennai	AAMEC/CSE/22/W01
54.	S.Karthick	820418104031	M/s Astrazenica, Chennai	AAMEC/CSE/22/AZ01
55.	D.Dharshini	820418104014	M/s Astrazenica, Chennai	AAMEC/CSE/22/AZ02
56.	S.V.Soundarya	820418104070	M/s Astrazenica, Chennai	AAMEC/CSE/22/AZ03
57.	K.Swetha	820418104074	M/s Mindtree, Chennai	AAMEC/CSE/22/MT01
58.	G.Sivasurya	820418104066	M/s Infosys, Chennai	AAMEC/CSE/22/I01
59.	P.S. Mohamed Riswan Maliq	820418104042	M/s Infosys, Chennai	AAMEC/CSE/22/I02
60.	D.Akshata	820418104006	M/s Market Intellect, Chennai	AAMEC/CSE/22/MI01

61.	Gunasundari.M	820418104023	M/s Market Intellect, Chennai	AAMEC/CSE/22/MI02
62.	K.Soorya	820418104068	M/s Market Intellect, Chennai	AAMEC/CSE/22/MI03
63.	Maheshwaran.M	820418104037	M/s Market Intellect, Chennai	AAMEC/CSE/22/MI04
64.	Slochana.R	820418104073	M/s Market Intellect, Chennai	AAMEC/CSE/22/MI05
65.	D.Akshata	820418104006	AstraZeneca	AAMEC/CSE/22/AZ04
66.	Karishmaa ST	820418104030	Abstract Tech	AAMEC/CSE/22/AT01
67.	S.Hariharasudhan	820418104024	Top Freshers	AAMEC/CSE/22/TF01
68.	Sayed Ibrahim M	820418104059	Novac Technology Solutions,Chennai	AAMEC/CSE/22/NT01
69.	KeerthiKiran K.A	820418104032	Testyantra	AAMEC/CSE/22/TY01
70.	Madhumitha.B	820418104036	Zilogic System	AAMEC/CSE/22/ZS01
71.	Nikitha.S	820418104048	Atos	AAMEC/CSE/22/A01

Table 4.5.3 Placement Details-Assessment Year Name: CAYm2

Higher Studies

S. No.	Student Name	Enrollment No.	Name of the Programme	Name of the College
1	Gunasundari M	820418104023	MBA	Periyar Maniammai Institute of Science & Technology
2	Iswarya RS	820418104027	MBA-HR AND MARKETING	Hindustan Institute of technology and science.

Table 4.5.4 Higher Studies Assessment Year Name: CAYm2

Assessment Year Name: CAYm3

S. No.	Student Name	Enrollment No.	Employee Name	Appointment No.
1	G. Abinaya	820417104001	M/s Sysarc Informatix	Sys/2021/01
2	T.Akash	820417104005	M/s Acceligments Business Solutions Pvt. Ltd.	ACC:OL:2021:09:707 & 06/10/2021
3	R. Aswin	820417104008	M/s Prasad Corporation	AAMEC/PC/01&20/07/2021
4	B.Balashiv	820417104010	Wissen Infotech Pvt. Ltd., Bangalore	20/09/2021
5	S. DivyaSree	820417104012	M/s Novac Technology Solutions, Chennai	AAMEC/NTS/01
6	K Divyadharani	820417104014	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/01&16/07/2021
7	K Divyadharani	820417104014	M/s Qspiders, Chennai	AAMEC/CSE/QS/001
8	B Gayatri	820417104016	Wipro Pvt. Limited	AAMEC/CSE/WL/001&10/09/2021
9	S Habeebulla	820417104017	M/s Vuram Technology Solutions,Chennai	AAMEC/CSE/VTS/02 & 16/07/2021
10	Harini S	820417104018	M/s Vuram Technology Solutions,Chennai	AAMEC/CSE/VTS/03 & 16/07/2021
11	S. Jafar Ali	820417104021	M/S Vsolv Engineering India Pvt. Ltd.	AAMEC/CSE/VE/01 &24/07/2021
12	G.JayaPrabha	820417104022	M/s Accenture Solutions Pvt. Ltd.	AAMEC/CSE/ASP/01 &02/09/2021
13	B. Kaviya	820417104026	M/s Novac Technology Solutions, Chennai	AAMEC/CSE/NTS/01
14	Mohamed Harish Hameed K H	820417104030	M/s Hakunamatta, Chennai	AAMEC/CSE/HAK/01 &10/05/2021
15	J. Mohamed Hasan	820417104031	M/s Syncfusion Software Pvt. Ltd.	AAMEC/CSE/SFS/01
16	Monica T	820417104032	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/04&14/07/2021
17	Monica T	820417104032	M/s Qspiders, Chennai	AAMEC/CSE/QS/02
18	B.Nithiyasree	820417104039	Infosys	HRD/3T/1002394134/21-22 & 08/09/2021
19	B.Nithiyasree	820417104039	TATA Elxsi, Bangalore	AAMEC/CSE/TE/01 &06/09/2021
20	NusrathJahan A B	820417104040	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/05 &14/07/2021
21	NusrathJahan A B	820417104040	Infosys Pvt. Ltd.	HRD3T1002130050/20-21
22	S. Pavithra	820417104043	Wipro Pvt. Ltd.	AAMEC/CSE/WL/02 & 16/09/2021
23	Preethi R	820417104045	M/s Mindtree Ltd., Bangalore	AAMEC/CSE/MT/01 & 19/06/2021
24	Preethi R	820417104045	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/06 & 14/07/2021
25	Preethi R	820417104045	M/s Lumina Datamatics Pvt Ltd, Chennai	AAMEC/CSE/LD/03
26	Preethi R	820417104045	M/s Qspiders, Chennai	AAMEC/CSE/QS/21/03
27	Ragamaliga P	820417104048	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/07 & 14/07/2021
28	B.T. Rakshana	820417104051	Tata Consultancy Service,	TCSL/DT20195452427

			Chennai	
29	S. Sakthikumar	820417104054	M/s Softeon India Pvt. Ltd.	AAMEC/CSE/SIP/01 &11/09/2021
30	Sasirekha.K	820417104058	M/sWebberax, Chennai	AAMEC/CSE/WB/01
31	Sasirekha.K	820417104058	M/S Weetech Infomedia Pvt. Ltd.	AAMEC/CSE/WI/01
32	N. Siva Bharathi	820417104060	Infosys Pvt. Ltd.	HRD/1002125788/21-22 & 19/10/2021
33	D. Sneha	820417104062	Tata Consultancy Service, Chennai	TCSL/DT20207300314/Del & 12/12/2021
34	M.Sowmiya	820417104065	M/s Tecknodreams ,Bangalore	AAMEC/CSE/TD/01 & 18/03/2021
35	R.H. Sowmiya	820417104066	Cognizant Technology Solutions	CTS/202066465
36	G. Sudheshna	820417104071	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/08 & 14/07/2021
37	S.Swaminathan	820417104072	M/s Tecknodreams, Bangalore	AAMEC/CSE/TD/02 &&13/08/2021
38	Vasanthan.M	820417104073	M/s Lumina Datamatics Pvt Ltd, Chennai	AAMEC/CSE/LD/01
39	S Venkatesh	820417104074	TCS,Bangaloare	TCSL/DT20207193220
40	M.Vithya	820417104076	M/s Lumina Datamatics Pvt Ltd, Chennai	AAMEC/CSE/LD/02
41	M.Vithya	820417104076	M/s SopraSteria	AAMEC/CSE/SS/01 &15/07/2021
42	Yukesh Raaj S	820417104077	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/09 & 14/07/2021

Table 4.5.5 Placement Details-Assessment Year Name: CAYm3

Higher Studies

S. No.	Student Name	Enrollment No.	Name of the Programme	Name of the College
1	T. Mugunthan	820417104034	MBA	GR Damodaran Academy of Management
2	R S Sriram	820417104069	PG Courses	MAAC, Chennai

Table 4.5.6 Higher Studies Assessment Year Name: CAYm3

Assessment Year Name: LYG

S. No.	Student Name	Enrollment No.	Employee Name	Appointment No
1	N.Abarna	820416104002	TCS, Chennai	TCSL/DT20195567848 & 18/09/2019
			M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/20/01 &25/08/2020
2	S. Abinaya	820416104003	HCL, Chennai	HCL/195665
3	V.Abinaya	820416104004	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/20/02&25/08/2020
4	S. Abipriya	820416104005	TCS, Ahmedabed	TCSL/DT20218325117 & 07/12/2021
			BASS INFRATEL	AAMEC/CSE/BI/20/01
5	J.Agalya	820416104007	M/s Qspiders, Chennai	AAMEC/CSE/QS/20/01
			Vee Technologies	AAMEC/CSE/VT/20/01
6	T.K. Akcshaya	820416104011	SJK innovations	AAMEC/CSE/SJK/01
7	P. Anusha	820416104016	Qubercomm	AAMEC/CSE/QT/01

			Technologies, Chennai	
8	S.Arsith	820416104017	TCS, Chennai	TCSL/DT20195573008 & 18/09/2019
9	V.Arulanbu	820416104019	Vee Technologies	AAMEC/CSE/20/VT/02
10	R. Aruna	820416104022	TCS, Chennai	TCSL/DT20195446545/1482728 & 05/04/2021
11	H.Dawood	820416104025	TCS	TCSL/DT20195604072 & 26/03/2021
			M/s Qspiders, Chennai	AAMEC/CSE/QS/20/02
12	R. Devadarsini	820416104027	QubercommTechnologies, Chennai	AAMEC/CSE/QT/02
			BASS INFRATEL	AAMEC/CSE/BI/20/02
13	R.Dhanalakshmi	820416104029	Bassure Solutions, Chennai	AAMEC/CSE/BS/01 &11/12/2021
14	K.DheenulApzan	820416104030	Cognizant Technology Solutions	CTS/202065221
15	M.Harani	820416104034	TCS	TCSL/DT20206987138 & 30/03/2021
			M/s Qspiders, Chennai	AAMEC/CSE/QS/20/03
16	B.Hariharan	820416104035	Infosys Pvt. Ltd.	HRD/3T/1002747340/21-22& 12/12/2021
			M/s Qspiders, Chennai	AAMEC/CSE/QS/20/04
17	S.Indrajit	820416104036	Infosys Pvt. Ltd.	HRD/3T/1001877942/21-22 & 09/06/2021
			M/s Qspiders, Chennai	AAMEC/CSE/QS/20/05
18	A.S.Ishwarya	820416104037	Infosys Pvt. Ltd.	HRD/3T/1001877812/21-22 & 12/07/2021
19	A Jabeena	820416104038	Infosys Pvt. Ltd.	HRD/3T/1002021220/21-22 & 04/06/2021
20	S. Keerthana	820416104040	Capgemini, Chennai	5393515/1113564 & 11/1/2022
21	M.Kesavan	820416104041	Syncfusion Software	AAMEC/CSE/SS/20/01 &08/03/2021
22	S.Manisankar	820416104044	TCS, Chennai	TCSL/DT2019542801 & 18/09/2019
			InfoView Technologies Pvt. Ltd., Chennai	AAMEC/CSE/IVTL/20/01
23	Mufeed Rahman U K	820416104046	TCS, Chennai	TCSL/DT20218551691
24	K. Nithyakala	820416104049	HCL	24/08/2020
25	C. Nithya Sri	820416104050	HCL	24/08/2020
			M/s Vuram Technology Solutions,Chennai	AAMEC/CSE/VTS/20/03&25/08/2020
26	M.Prabhakaran	820416104052	M/s Qspiders, Chennai	AAMEC/CSE/QS/20/06
27			Boson Labs	26/09/2020
28	K. Pragadesh	820416104053	SJK innovations	AAMEC/CSE/SJK/02
29	E.Premika	820416104054	M/s Qspiders, Chennai	AAMEC/CSE/QS/20/07
			SJK innovations	AAMEC/CSE/SJK/03
30	V.Priyangha	820416104055	TCS	TCSL/DT2021887654
			Wipro	WP/2020761745798
			M/s Vuram Technology Solutions,Chennai	AAMEC/CSE/VTS/20/05 &25/08/2020
31	K.K.Rakshana	820416104056	M/s Qspiders, Chennai	AAMEC/CSE/QS/20/08
32	B. Ramachandran	820416104057	Boson Labs	26/10/2020
33	G.Sandhiya	820416104059	TCS, Chennai	TCSL/DT2021831636
34	G.Sandhiya	820416104060	Woua Software Labs	WL0007 & 15/12/2020
35	R.Santhiya	820416104061	Infosys Pvt. Ltd.	INF-20-01
36	B.Satham Hussain	820416104063	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/20/06&25/08/2020
			IVTL Infoview	AAMEC/CSE/IVTL/20/01

37	G.Shanmugha Priya	820416104064	M/s Qspiders, Chennai	AAMEC/CSE/QS/20/09
38	R.Shobana	820416104066	M/s Qspiders, Chennai	AAMEC/CSE/QS/20/10
39	B.Srividhya	820416104072	M/s Qspiders, Chennai	AAMEC/CSE/QS/20/11
40	S.Subathra	820416104075	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/20/07&25/08/2020
41	S.Swetha	820416104080	TCS, Lucknow	TCSL/DT20229543359 & 20/01/2022
			M/s Qspiders, Chennai	AAMEC/CSE/QS/20/12
42	S.Swetha	820416104081	Vee Technologies, Salem	AAMEC/CSE/20/VT/03
43	K.M. Thanga Oviya	820416104082	CTS	CTS/202045654 &18/09/2021
			CSS corp	CSS202065465
44	R. Veenaa	820416104085	M/s Vuram Technology Solutions,Chennai	AAMEC/CSE/VTS/20/08&25/08/2020
			BASS INFRATEL	AAMEC/CSE/BI/20/03
45	P.Manibharath	820416104304	M/s Qspiders, Chennai	AAMEC/CSE/QS/20/13
46	Shahul Hameed	820416104308	Sumeru Software Solution Pvt. Ltd, Bangalore	AAMEC/CSE/SSS/20/01 &10/08/2021
47	M. Subasri	820416104702	M/s Vuram Technology Solutions, Chennai	AAMEC/CSE/VTS/20/09&25/08/2020

Table 4.5.7 Placement Details-Assessment Year Name: LYG

Higher Studies

S. No.	Student Name	Enrollment No.	Name of the Programme	Name of the College
1	E.Premika	820416104054	MBA	Sri Pushpam College , Thanjavur
2	V. Devi Abirami	820416104028	M.Tech.	Sastra, Thanjavur
3.	K KRakshana	820416104056	MBA	Sastra, Thanjavur

Table 4.5.8 Higher Studies Assessment Year Name: LYG

Assessment Year Name: LYGm1

S. No.	Student Name	Enrollment No	Employee Name	Appointment No
1	R. Aiswarya	820415104005	Vee Technologies, Salem	AAMEC/CSE/VT/19/01
2	R. Aiswarya	820415104005	Infosys pvt. Ltd., Chennai	HR3T1326561
3	R. Aiswarya	820415104005	TCS,Tiruvendrum	TCSL/DT20195108924
4	K. Ayeshwariya	820415104008	Vee Technologies, Salem	AAMEC/CSE/VT/19/02
5	A.Dhivya	820415104012	The Innovators Group, Chennai	AAMEC/CSE/IG/19/01
6	R. Gayathri	820415104018	Sri Shanmuga Groups, Erode	AAMEC/CSE/SSG/19/01
7	M.K. Harinaayanan	820615104021	Seventh Sense Talent Solutions Pvt. Ltd, Bangalore	AAMEC/CSE/SSTP/19/01 & 26.03.2019
8	FarilHutha M	820615104017	CMS IT Services, Trichy	AAMEC/CMSIT/19/01
9	R.Haritha	820415104023	Sri Shanmuga Groups, Erode	AAMEC/CSE/SSG/19/02
10	J.Jagan	820415104024	Vee Technologies, Salem	AAMEC/CSE/VT/19/03
11	J.Jagan	820415104024	CMS IT Services, Trichy	AAMEC/CMSIT/19/02
12	S Jayasri	820415104026	CMS IT Services, Trichy	AAMEC/CMSIT/19/03
13	B.Mathumitha	820415104032	Sri Shanmuga Groups, Erode	AAMEC/CSE/SSG/19/03
14	B.Mathumitha	820415104032	CMS IT Services, Trichy	AAMEC/CMSIT/19/04

15	B.Mathumitha	820415104032	CTS, Chennai	CTS20192358
16	B MerylenJenow	820415104033	Infosys Chennai	INF-19-01
17	S. Naveen Kumar	820415104037	Vee Technologies, Salem	AAMEC/CSE/VT/19/04
18	N.Nithyakalyani	820415104039	Seventh Sense Talent Solutions Pvt. Ltd, Bangalore	AAMEC/CSE/SSTP/19/02 & 26.03.2019
19	N.Nithyakalyani	820415104039	CMS IT Services, Trichy	AAMEC/CMSIT/19/05
20	R.Pradeepa	820415104046	CMS IT Services, Trichy	AAMEC/CMSIT/19/05
21	PRAKASH A	820415104047	TCS, Chennai	TCSL/DT20184440599
22	NOOR BANU N	820415104041	CMS IT Services, Trichy	AAMEC/CMSIT/19/06
23	POOJA R	820415104044	CMS IT Services, Trichy	AAMEC/CMSIT/19/07
24	P.Priya	820415104049	The Innovators Group, Chennai	AAMEC/CSE/IG/19/02
25	M.Ramya	820415104057	Vitusa Consulting Services Pvt. Ltd.	11/08/2021
26	P.Rajarajan	820415104055	CMS IT Services, Trichy	AAMEC/CMSIT/19/08
27	E.Sanjay	820415104060	CMS IT Services, Trichy	AAMEC/CSE/CMS/19/01
28	M.Seethaladevi	820415104063	Vee Technologies, Salem	AAMEC/CSE/VT/19/04
29	C.Sivanesan	820415104064	Sri Shanmuga Groups, Erode	AAMEC/CSE/SSG/19/04
30	C.Sivanesan	820415104064	CMS IT services, Tirchy	AAMEC/CMSIT/19/09
31	A.Sneka	820415104065	Sri Shanmuga Groups, Erode	AAMEC/CSE/SSG/19/05
32	A.Sneka	820415104065	CMS IT services, Tirchy	AAMEC/CMSIT/19/10
33	R. Sowrabhi	820415104068	Infosys Chennai	INF-19-02
34	J.Subhashri	820415104070	Infosys Chennai	INF-19-03
35	P.Sudharshanan	820415104071	CMS IT services, Trichy	AAMEC/CMSIT/19/11
36	P.Sudharshanan	820415104071	Agaram Technologies	AAMEC/CSE/AGA/19/01
37	S.Surya	820415104072	Softcrylic Careers	Softcrylic/HRD/2019 & 29/07/2019
38	S.Surya	820415104072	CAD Macro Design solution pvt ltd., Chennai	
39	R.TamilOviyam	820415104073	TCS , Chennai	TCSL/DT201954654

Table 4.5.9 Placement Details-Assessment Year Name: LYGm1

Higher Studies

S. No.	Student Name	Enrollment No.	Name of the Programme	Name of the College
1	R. Pradeepa	820415104046	MBA	Sastra, Thanjavur

Table 4.5.10 Placement Details-Assessment Year Name: LYGm1

4.6 Professional Activities(20)

4.6.1 Professional societies/chapters and organizing engineering events(5)

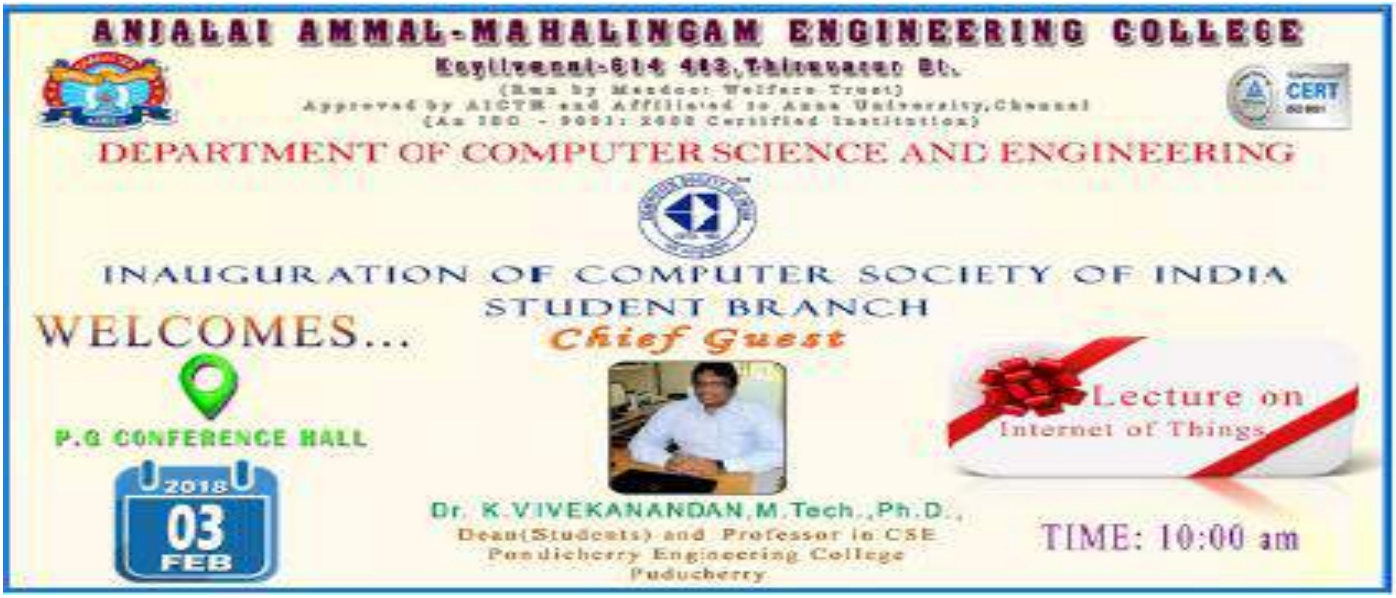
CSI(Computer Society of India)

The Computer Society of India is a non-profit professional meet to exchange views and information to learn and share ideas. The wide spectrum of members is committed to the advancement of theory and practice of Computer Engineering and Technology Systems, Science and Engineering, Information Processing and related Arts and Sciences.The Society also encourages and assists professionals to maintain integrity and competence of the profession and fosters a sense of partnership amongst members. Besides the activities held at the Chapters and Student Branches, the Society also conducts periodic conferences, seminars.

INSTITUTIONAL MEMBERSHIP

Computer Society of India

Department of Computer Science and Engineering, AnjalaiAmmalMahalingam Engineering College, Kovilvenni, Thiruvarur District, has organized theInauguration of Computer Society of India student branch on 03.02.2018.



The detailed report of the function is as follows.

Day: 03.02.18 Saturday

The function started at 10.00 am at PG Conference hall, Dr. K. Vivekanandan, B. E., M. Tech., Ph.D., Department of Computer Science and Engineering,Pondicherry Engineering College, Pondicherry has inaugurated the "Computer Society of India –AAMEC CSI student branch " and issued the CSI studentmembership card for our students .

AAMEC CSI Student branch has been started with student strength of 75as an initiative and further we have applied for 31 more students for membership.





Dr. K. Vivekanandan Dr. K. Vivekanandan, B. E., M. Tech., Ph.D., Department of Computer Science and Engineering, Pondicherry Engineering College,Pondicherryhas given a guest lecture on **"Introduction to Internet of Things "**followed by the inaugural function for II year and Third Year students.

Feedback From Expert:

1. The students are very enthusiastic. Academic Ambience is good. The teachers are highly motivated.

Dr. K. Vivekanandan, B. E., M. Tech., Ph.D.,
Department of Computer Science and Engineering,
Pondicherry Engineering College, Pondicherry.



Events organized by CSI
Academic year 2023-2024
Department of Computer Science and Engineering, Anjalai Ammal Mahalingam Engineering College, Kovilvenni, Thiruvarur District, has organized **"Hands-on Training on Power BI"** on 05.08.2023.



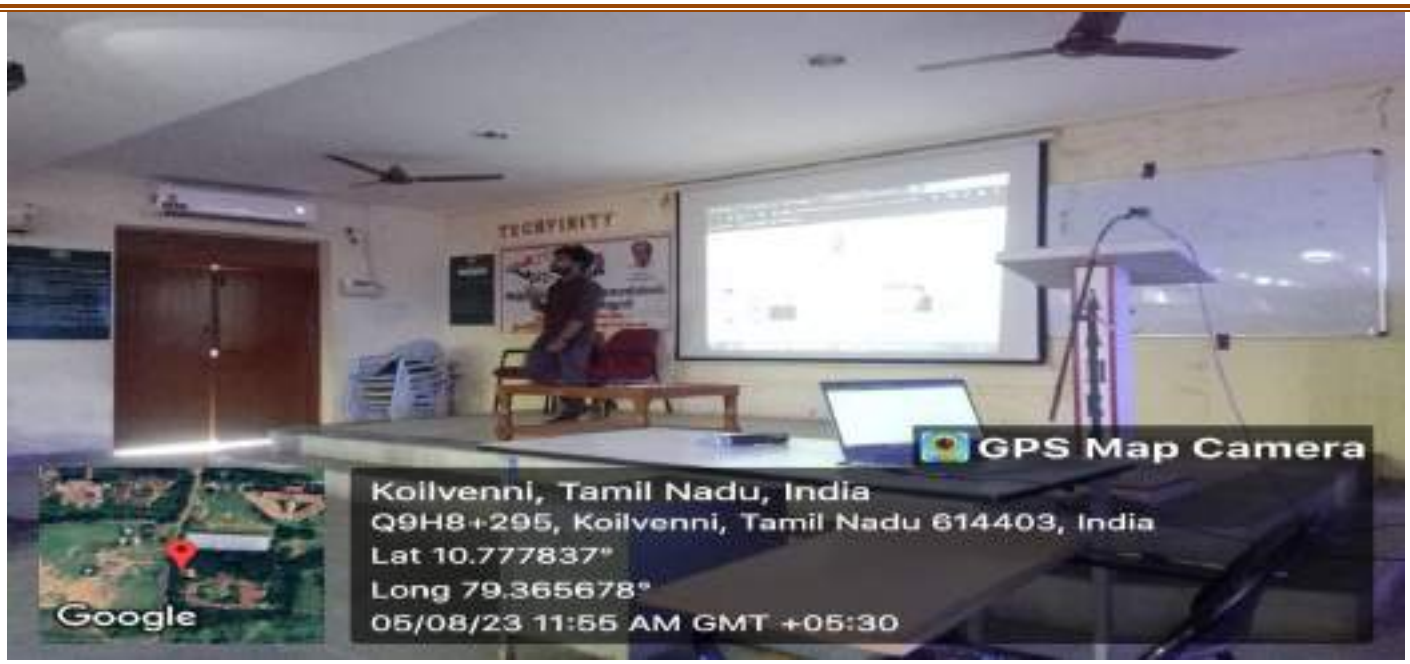
The detailed report of the function is as follows.
Day: 05.08.2023 Saturday
The function started at 11.30 am at PG Conference hall, followed by the inauguration of CSE Association Activities,





Mrs.G.Kalaiselvi, Nominee Member-CSI, Assistant Professor, Department of Computer Science and Engineering, Anjalai Ammal Mahalingam Engineering College gave an introduction about Computer Society of India, its membership details and the benefits of being an eminent student member of CSI to the students.

The resource person for the program was Mr.M.Vinothkumar, B.E., Assistant Software Engineer, Tata Consultancy Service, Chennai. He provided Hands-on Training on Power BI for our 3rd year students.



After the completion of the training there was an interaction session between the students and chief guest that paved the way to clarify doubts regarding the tool under discussion also grasping best career opportunities.

Feedback From Experts:

The students are very enthusiastic. Academic Ambience is good. The teachers are highly motivated.

Mr.M.Vinothkumar, B.E.,
Assistant Software Engineer,
Tata Consultancy Service,
Chennai.

Department of Computer Science and Engineering, Anjalai Ammal Mahalingam Engineering College, Kovilvenni, Thiruvarur District, has organized "**A Workshop on R Studio**" on 24.02.2024.



The detailed report of the function is as follows.
Day: 24.02.2024 Saturday

The function started at 10.00 am at PG Conference hall, Ms. Meena Lochani S, III CSE student delivered a welcome address. Ms. Shri Vaishnavi V, III CSE student gave an intelligible Chief Guest introduction followed by Mrs.K.Nithiya AP/CSE honored the chief guest.

The resource person for the program was Dr. Sathya P, Assistant Professor, Department of Statistics and Data Science, Christ Deemed to be University, Hosur Road, Bangalore. She started the session with a brief introduction about R programming and proceeded for the installation of R Studio. A set of practice codes was given by resource person through google classroom for all the students. The resource person provided a hands on training on R studio for all the practice codes given, session extended upto 1.00 pm and an assessment on GGPLOT was conducted to test the understanding of students.





After the completion of the training there was an interaction and motivational session between the students and chief guest that paved the way to clarify doubts regarding the tool under discussion also grasping best career opportunities.

Feedback From Experts:

The students are very enthusiastic. Academic Ambience is good. The teachers are highly motivated.

Dr. Sathya P,
Assistant Professor,
Department of Statistics and Data Science, Christ Deemed to be University,
Hosur Road,
Bangalore.

ISTE(Indian Society for Technical Education)

The Indian Society for Technical Education (ISTE) is the leading National Professional non-profit making Society for the Technical Education System in our country with the motto of Career Development of Teachers and Personality Development of Students and overall development of our Technical Education System.

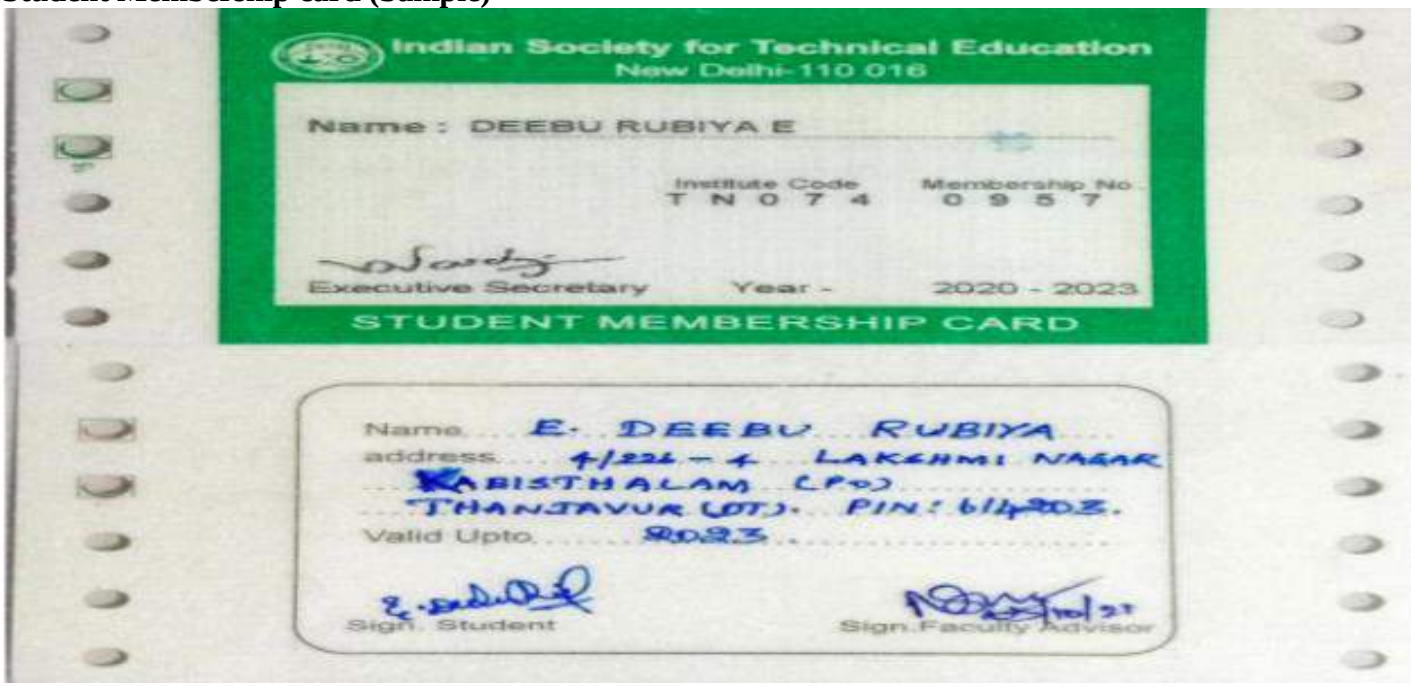
ISTE STAFF-LIFE MEMBERSHIP		
S. No.	**Name of the faculty**	**Membership ID**
1	Dr.K.Velmurugan	LM44078
2	Dr.T.Vigneswari	LM46643
3	Dr.J.Ganesh	LM64371
4	Mr.R.Arunchalam	LM23556
5	Mrs.G.Kalaiselvi	LM88513

Table 4.6.1.1 Details of ISTE Staff-Life Membership

ISTE STUDENT MEMBERSHIP (2021-2022)		
S. No.	**Year**	**Total**
1	I-Year	59
2	II-Year	29
3	III-Year	51
4	IV-Year	29
Total number of students		168

Table 4.6.1.2 Details of ISTE Student Membership

Student Membership card (Sample)



Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research. **Mission:M1:**To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:**To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.**M3:**To train students to enhance their problem-solving and programming skills. **M4:**To expose students to emerging technologies and tools in the field of computing.

ISTE Events

One day workshop on Cyber forensics on 26.10.2021

Sample Certificate


ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI - 614 403
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
CERTIFICATE OF PARTICIPATION
This is to certify that Mr/ Ms .....ABINAYA..S.....
of.....FINAL YEAR - CSE.....
has participated in the one day Workshop on "Cyber Forensics"
held on 26.10.2021.
HOD - ECE
CEO
(Vajenthura Microwave Products)
Principal

List of Events organized by ISTE student Chapter, AAMEC

S. No.	Date	Description	No. of participants
		Academic year 2022-2023	
1	28.05.2022	**Guest lecture on "Opportunities of python in Industries "** Resource person: Mr.S.Senthil Kumar, Senior Software Engineer**, TATA consultancy services**	100
2	15.09.2022	**Guest lecture on "How to be a successful Engineer"** Resource person: Mr.P.Vignesh Senior software Engineer, EPAM systems. Mr.S.Surender, Member Technical staff, HCL Technologies	100
3	01.04.2023	**Technical Quiz** Preliminary- written test I & II -wipe out round III – Connection round (Technical) IV- Rapid fire round (Technical)	No. of teams -29
4	29.04.2023	**Poster Competition** Theme: Energy Revolution Addiction of Mobile phone	20
5	17.02.2023	**National Level ISTE-Srinivasa Ramanugan Mathematical competition 22-23** Chapter level examination -11.03.2023 (86 students) State level examination -25.03.2023 (17 students) National level examination -01.04,2023 (7 students)	86
		Academic year 2023-2024	
1	21.02.2024	**Guest Lecture on "Creating Kaveri beneath our feet: Transformations of Deltaic Environments"** Andres Verzijl Sr. Lect. in Water, Urbanization & Climate Justice, IHE, The Netherlands	85

ICT Academy

ICT Academy is an initiative of the Government of India in collaboration with the state Governments and Industries. ICT Academy is a not-for-profit society, the first ofits kind pioneer venture under the Public-Private-Partnership (PPP) model that endeavours to train the higher education teachers and students thereby exercises ondeveloping the next generation teachers and industry ready students.

ICT Academy was started to meet the skill requirements of the industry and generate more employment especially in tier 2 and 3 towns, the rural parts of the country.The organization was formed with representations from the State Government of Tamil Nadu, leading companies in the ICT industry and National Association of SoftwareServices Companies (NASSCOM) in India.

With training of teachers and students as the primary objective, ICT Academy has been working through a seven pillar program in the areas of Faculty Development,Student Skill Development, Entrepreneurship Development, Youth Empowerment, Industry-Institute Interaction, Digital Empowerment and Research & Publications.

Programme organized by ICTACT

S. No.	Title of the programme	Name of the resource person	Date of event	Total participants
1	Full stack development	G.Archana, Associate, Accenture, Chennai	07.05.2022	20
2	Java training	P.Yuvaraj, CTS,Chennai	20.12.2021 to 30.12.2021	50
3	CSR-Cyber Security	Mrs.S.FarjanaFarvin, Mrs.K.Karthika, Mrs.G.Jeyasri, Mrs.J.SathiyaJothi.	03.11.2022 To 25.11.2022	60

Table 4.6.1.3 Details of Programme organized by ICTACT

ICTACADEMY

EXPRESSION OF INTEREST

College Name: ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

Location: KOVILVENNI

District: TIRUVARUR

State: TAMIL NADU

With reference to the communication from ICT Academy, we hereby confirm our willingness to be an implementation institution for the Cybersecurity Training for Educators & Students of Higher Education, powered by Microsoft Philanthropies and implemented by ICT Academy. We confirm the following.

Stage1:

- Nominate 4 faculty for the Master training program on Cybersecurity.
- Will facilitate the nominated faculty to participate in the 40 hours Master training program and assessment.

Stage2:

- If the Institution has been selected for the next stage, we shall nominate 120 students of Circuit branch / Computer Science students passing out in 2023.
- Will facilitate each of the nominated faculty to train 30 students each, for the 30 hours training.

Stage3:

- We confirm to provide 70 Hours of training schedule for the direct Training in Campus. Will facilitate the selected 50 students to undergo the 70 hours training by ICT Academy
- Will ensure that all students selected will complete the course.

We confirm to execute this unique "Cybersecurity Training for Educators & Students of Higher Education" successfully in next 7 Months.

Nominated SPOC for Cybersecurity Training	
Name	A. SURYA
Designation	ASSISTANT PROFESSOR
Department	ECE
Contact No.	9566003501
Email - Id	a.surya@aamec.edu.in

Table 4.6.1.4 Nominated SPOC for Cybersecurity Training

S.No	Faculty Name	Registered ID	Email ID
1	Mrs. Farjana Farvin Sahapudeen	95756	farvinfarjana@gmail.com
2	Mrs. K Karthika	96076	karthikakannan90@gmail.com
3	Mrs. Jeyasri G	95744	g.jeyasri@gmail.com
4	Mrs. Sathiya Jothi J	95716	jsathiyajothi@gmail.com

Table 4.6.1.5 Nominated faculty members for Cybersecurity Training

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE

ICT ACADEMY

Stage- 2 , Batch - 2 Cyber Security Batch Wise Students Training list

Sl.No.	Students Name	Students Registered Mobile No.	Students Registered Mail ID	Department
	1st Mentor Nme: Mrs.G.Jeyasri,AP/IT		2nd Mentor Name: Mrs.K.Karthika ,AP/CSE	
1	Abinaya K	8072794288	abinayaabinaya14231@gmail.com	ECE
2	Vaishnavi R	6379155137	vaishraju2002@gmail.com	ECE
3	Sivasakthi K R	9487171129	sivasakthikallasam@gmail.com	ECE
4	Yoga Priya R	9080490531	ryogapriya@gmail.com	ECE
5	Surya Lakshmanan V	9025033805	surya28ajith@gmail.com	ECE
6	Santhosh S	6385916880	santhosharinivasan290920010@gmail.com	ECE
7	Thanga Muthu S	7305761626	thanganmuthu2289@gmail.com	ECE
8	Vijayakrishnan G	9344814504	gunavijay29640@gmail.com	ECE
9	Shanmugapriya S	8870006597	shanmugapriyatnj2001@gmail.com	ECE
10	Vikram G	9360324195	vikramgnanasekaran2@gmail.com	ECE
11	Vijithra P	9025749633	vijithrapandiyan@gmail.com	CSE
12	Balaji K	9080541242	balaji1649417@gmail.com	CSE
13	Subasri M	9445100318	msubasri.mng@gmail.com	CSE
14	Samyukthasri R M	9080478068	samyukthasrirm02@gmail.com	CSE
15	Sivanandhini R	7904214320	sivanandhini2210@gmail.com	CSE
16	Nandhini V	9080066819	nandhini.vijayakumar7@gmail.com	CSE
17	Muthulakshmi M	8778709749	muthumk020607@gmail.com	CSE
18	Dharshini J	9080164495	jdharshinishradh@gmail.com	CSE
19	Divyasree R	9025392182	divyasreeramesh610@gmail.com	CSE
20	Deepika G	6381882065	deepikakrish2324@gmail.com	CSE
1	Asiq Rahman A	8220381665	er.asiqrahman0503@gmail.com	IT
2	Kishorekumar S	9360508700	techkishore21@gmail.com	IT
3	Sheik Riyas H	9360606179	sheikriyas92@gmail.com	IT
4	Vasanth N	6385882702	vasanthdn7@gmail.com	IT
5	Sanjay V	9360312186	sanjaybtechit02@gmail.com	IT
6	Michael Danieal N	9894348292	michaeldanieal749@gmail.com	IT
7	Sakthi Oviya A	9600648359	oviyaa192@gmail.com	IT
8	Rajarajeswari J	8300487087	rajeraje1656@gmail.com	IT
9	Samyuktha S R	8838565719	samyuraja2002@gmail.com	IT
10	Sundaravalli P	9789426819	jayasri5844@gmail.com	IT

HOD/CSE
(A Sivara, AP/ECE)

ICTACT Coordinator

Principal

Table 4.6.1.6 Batch 2- Cyber seciruty Batch wise Students Training list

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE

ICT ACADEMY

Stage- 2 , Batch - 1 Cyber Security Batch Wise Students Training list

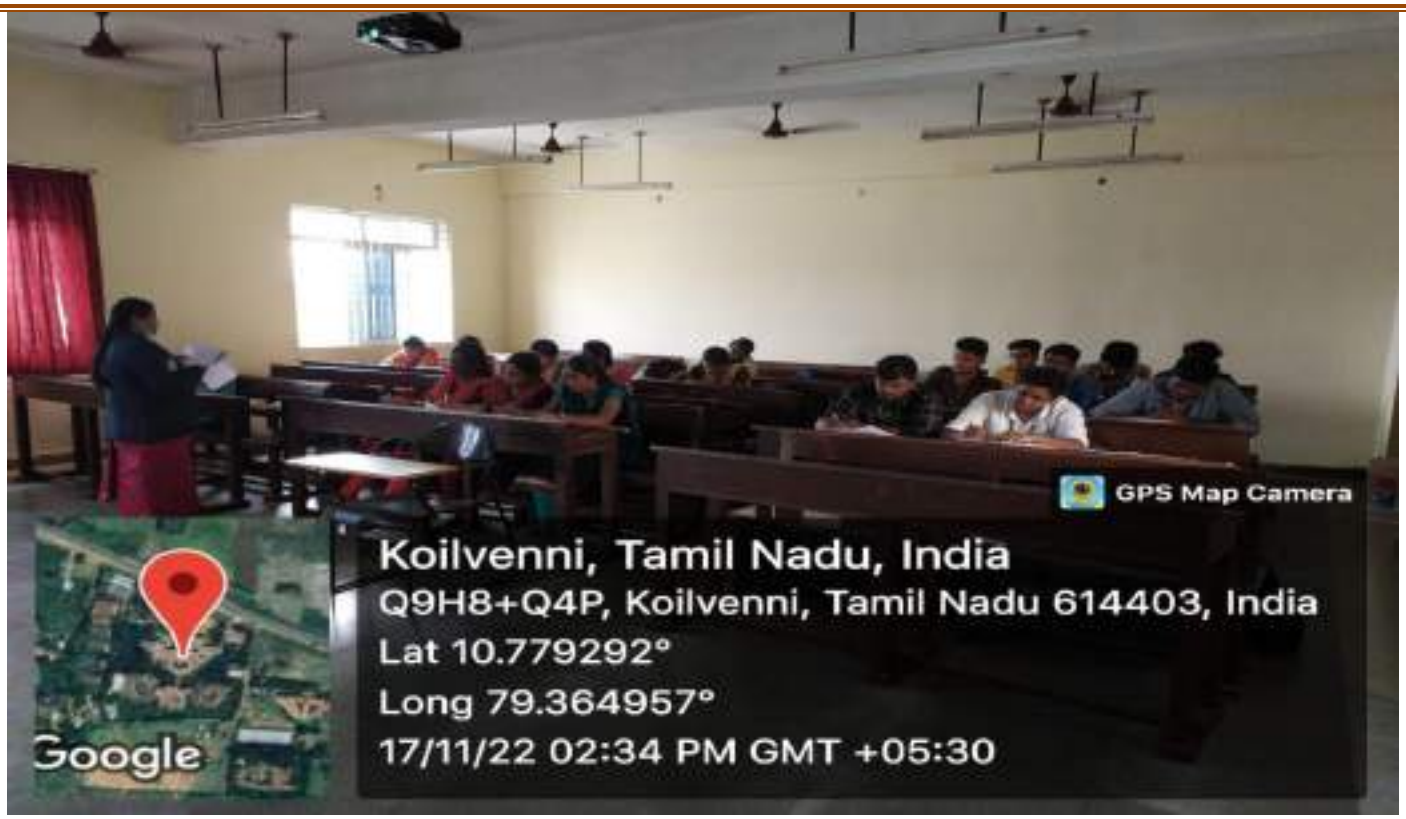
	1st Mentor Nme: Mrs.J.Sathiya Jothi,AP/IT		2nd Mentor Name: Mrs.S.Farjana Farvin, AP/CSE	
Sl.No.	Students Name	Students Registered Mobile No.	Students Registered Mail ID	Department
1	Hemapriya R	6380762615	priyaramesh1309@gmail.com	ECE
2	Akshaya D	9159214132	akshayadharani94424@gmail.com	ECE
3	Akash K	6385720480	akashkarthikeyan02@gmail.com	ECE
4	Deepa S	9944405798	deeparishika19411@gmail.com	ECE
5	Gangadevi S	8838754640	gangad882@gmail.com	ECE
6	Deepak S	9486781600	deepsdeepakmng@gmail.com	ECE
7	Medha S P	6369756878	meslhakumar29@gmail.com	ECE
8	Aishwarya K	9626063949	aishwarkanna002@gmail.com	ECE
9	Raagavi M	6379053876	raagavi2002manikandan@gmail.com	ECE
10	Sanjana L	9344213813	sanjana0210@gmail.com	ECE
11	Nivedha K	6383095416	nivedha200120@gmail.com	CSE
12	Sugashini T	9600875947	sugaram20@gmail.com	CSE
13	Vaishnavi P	9791595962	vaishnavigeetha6@gmail.com	CSE
14	Deebu Rubiya E	6383243477	deeburubiya27@gmail.com	CSE
15	Nithyashree R	6380467398	nithyashreeraneshkumar@gmail.com	CSE
16	Pearariulselvi S	6385938699	speararul@gmail.com	CSE
17	Nishanthini V	7603999143	nishadhanam29@gmail.com	CSE
18	Mohamed Thahir S	8072006280	thahirmohamed493@gmail.com	CSE
19	Dhivya V	7358910513	dhivyavijayakumar133@gmail.com	CSE
20	Shalini S	8870362628	shalinisasundhar@gmail.com	CSE
21	Vijayargavan B	9952836477	aamvijayraagav@gmail.com	IT
22	Mohamed Yousuf R	9150186224	yousufmohamed5254@gmail.com	IT
23	Mohamed Salman Mydeen A	6383077958	salmanmydeen031@gmail.com	IT
24	Guru Ashokk Raj R B	7708052396	gurusashokkraj@gmail.com	IT
25	Hariharan N M	6385453408	nmhariharan2001@gmail.com	IT
26	Divya Bharathi P S	8428972313	psdivyabharathi765@gmail.com	IT
27	Hariharan M	8825569036	hariharan342002@gmail.com	IT
28	Adhithiyan D	9360170120	adhithiyan.d@gmail.com	IT
29	Hirthick Kumar G	9943049217	hirthickvijay257@gmail.com	IT
30	Subashini S	9629436489	2004sandhiya@gmail.com	IT

SEOC Coordinator
(A Sumathi, AP/ECE)

ICTACT Coordinator

Principal

Table 4.6.1.7 Batch 2- Cyber seciruty Batch wise Students Training list





Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research. **Mission:M1:**To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:**To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.**M3:**To train students to enhance their problem-solving and programming skills. **M4:**To expose students to emerging technologies and tools in the field of computing.

KSHATRIYAH'22



Prize Distribution:



KSHATRIYAH'21

The department organizes a national level technical symposium namely KSHATRIYAH every year and it is totally organized and managed by our students. This gives opportunities for our students to exhibit their latent talents and leadership qualities. As a maiden attempt, in the year 2021, the symposium was conducted through online using the software developed by our students.

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research. **Mission:M1:**To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:**To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.**M3:**To train students to enhance their problem-solving and programming skills. **M4:**To expose students to emerging technologies and tools in the field of computing.

"Knowledge is power. Information is power. The secreting or hoarding of knowledge or information may be an act of tyranny camouflaged as humility."

--by Robin Morgan

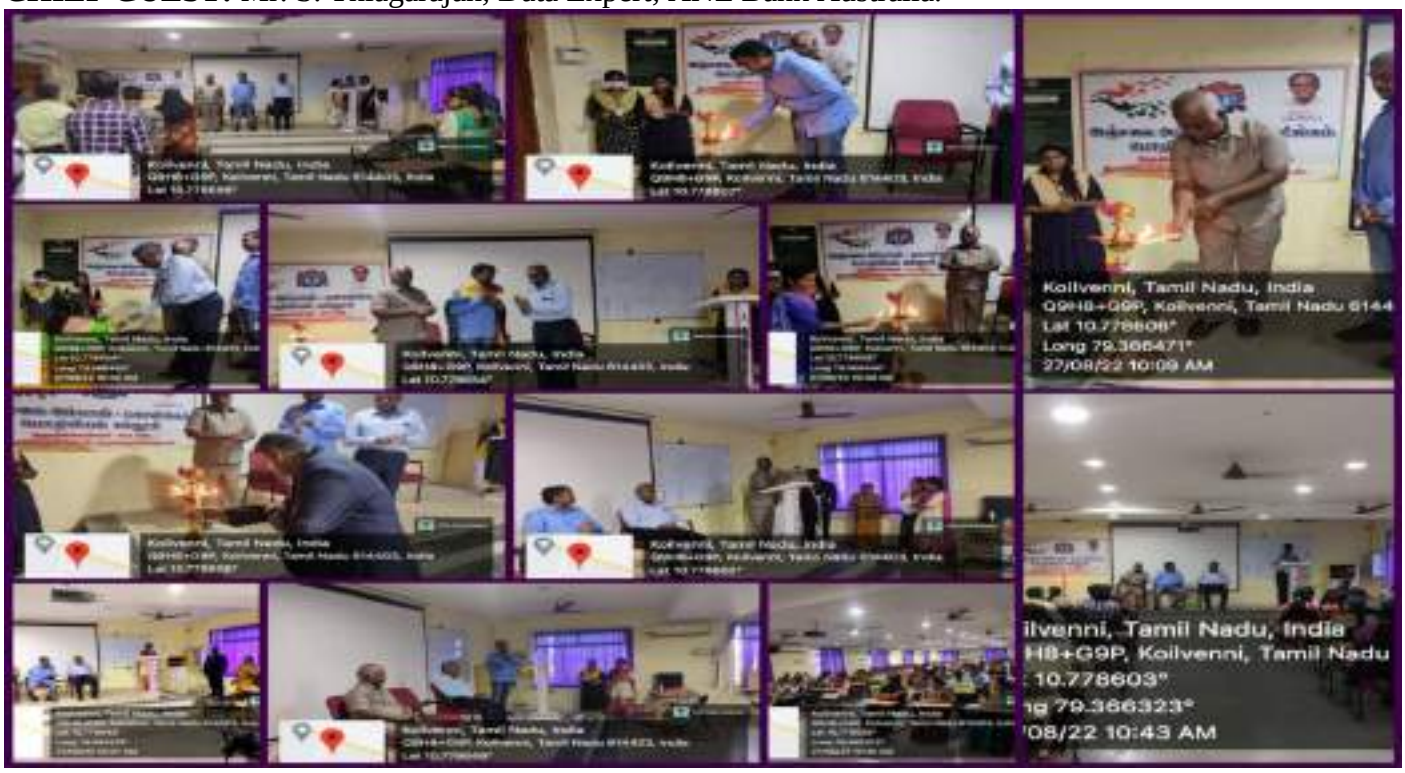
The event started with the formal Inaugural function at 10.00 a.m in P.G Conference Hall, CSE department with the Dr.S.N.RAMASWAMY, Principal AAMEC, Prof Dr.K.VELMURUGAN, HoD-CSE, Prof Dr.G.NANTHAKUMAR,Training and Placement OFFICER,Dr.MOHAN,HOD-IT,Dr.ABBASALI,HOD-MCA,ANUARIVAZHAGAN,(alumna) IT Specialist, Toronto Dominion Bank, Canada as a Chief Guest.



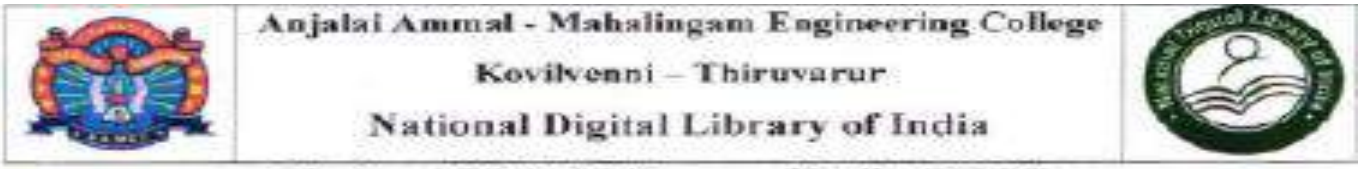
The students from various colleges like IIT KANPUR, SANSKRITHI SCHOOL OF ENGINEERING, ANDRA PRADESH, nearly 145 students from 45 differentcolleges participated in events such as paper presentation ,Web Designing and Programming contest.

CSE ASSOCIATION INAUGURATION

CHIEF GUEST: Mr. S. Thiagarajan, Data Expert, ANZ Bank Australia.



National Digital Libarary of India (NDLI) Club



National Digital Library of India (NDLI)

Objective of NDLI:

National Digital Library of India (NDLI) is a virtual repository of learning resources which is not just a repository with search/browse facilities but provides a host of services for the learner community. It is sponsored and mentored by Ministry of Education, Government of India, through its National Mission on Education through Information and Communication Technology (NMEICT). Filtered and federated searching is employed to facilitate focused searching so that learners can find the right resource with least effort and in minimum time. NDLI provides user group-specific services such as Examination Preparatory for School and College students and job aspirants. Services for Researchers and general learners are also provided. NDLI is designed to hold content of any language and provides interface support for 10 most widely used Indian languages. It is built to provide support for all academic levels including researchers and life-long learners, all disciplines, all popular forms of access devices and differently-abled learners. It is designed to enable people to learn and prepare from best practices from all over the world and to facilitate researchers to perform inter-linked exploration from multiple sources. It is developed, operated and maintained from Indian Institute of Technology Kharagpur.

The National Digital Library of India (NDLI) is an all-digital library that stores information (metadata) about different types of digital contents including books, articles, videos, audios, thesis and other educational materials relevant for users from varying educational levels and capabilities. It provides a single-window search facility so that learners can retrieve the right resources with the least effort in minimum time. It is available on all popular forms of access devices including mobile apps on Android and iOS platforms.

NDLI provides interface support for the leading vernacular languages and thus one can select the language of his/her choice to search or browse through NDLI. In other words, it is like a 'customised service' provided in a 24x7 integrated environment to suit a user's requirement and will be like a single 'go-to' shop for any requirement.Access to the NDLI system is free of charge. However, this will lead the user to the materials which may reside on other institutions' servers. Accessing these will be determined by the policy of those institutions and their access rules.

NDLI Coordinator

(Mrs.J.SathiyaJothi,AP/IT)

Principal

Principal,
Anjalai Ammal Mahalingam
Engineering College,
Kovilvenni - 614 403

Club Registration Certificate


Club Registration Certificate

Ministry of Education
Government of India

Indian Institute of Technology
Kharagpur

National Digital Library of India

CERTIFICATE OF REGISTRATION

This is to certify that "**Anjalai Ammal Mahalingam Engineering College**" is registered as a NDLI Club under the National Digital Library of India.

Registration Number: INTNSC54OEJYUWH
Date Of Registration: 01/04/2021
Valid Upto: 01/04/2022

पार्थप्रतिम दास

Dr. Partha Pratim Das
Joint Principal Investigator
National Digital Library of India Project
Indian Institute of Technology
Kharagpur

NDLI CLUB PARTNER
National Digital Library of India
LEARN . SHARE . GROW

Club Activities
Academic Year/Even Semester/2023-2024

S. No.	Name of the Activity	Date of the Activity	Department	Number of Registered Students
1	Deep Learning Application in IOMT	27.09.2023	CSE	107

Table 4.6.1.8 Club Activities in Academic Year/Even Semester/2023-2024



Academic Year/Even Semester/2022-2023

S. No.	Name of the Activity	Date of the Activity	Department	Number of Registered Students
1	Introduction to Deep Learning	03.05.2023	CSE	51

Table 4.6.1.9 Club Activities in Academic Year/Even Semester/2022-2023



Academic Year/Even Semester/2021-2022

S.No.	Name of the Activity	Date of the Activity	Department	Number of Registered Students
1	The Internet of Things (IoT)	16.05.2022	CSE	91

Table 4.6.1.10 Club Activities in Academic Year/Even Semester/2021-2022



Academic Year/Odd Semester/2021-2022

S. No.	Name of the Activity	Date of the Activity	Department	Number of Registered Students
1	Emerging Trends in Computing	24.11.2022	CSE	151



Club Events:

S.No.	Name of the Activity	Date of the Activity	Number of Registered Students
1	Challenges in Bridging Acdemia and Industries	26.5.2022	60
2	Cauvery Delta Irrigation System	21.5.2022	63
3	Current Trends in IT 2022	18.5.2022	74
4	IOT	16.5.2022	91
5	Excellence in LSRW	30.4.2022	65
6	Engineers Day Exuberance	15.9.2021	93
7	Vision 2030	11.9.2021	80
8	Programming Context in C	21.8.2021	98
9	NDLI user Awareness Programm	26.6.2021	99

Participation Certificate(Sample)







Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research. **Mission:M1:**To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:**To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.**M3:**To train students to enhance their problem-solving and programming skills. **M4:**To expose students to emerging technologies and tools in the field of computing.

4.6.2 Publication of Technical Magazine, Newsletters, etc., (5)

The department newsletter releases bimonthly in the name of "CSE HIGHLIGHTS". The editorial board of the newsletter are as follows

Editorial Board

Chief Editor in	Head of the department
Faculty Editor	P.Immaculate Rexi Jeniffer, AP
Student Editor	M.Vinothkumar, P.Santha Kumar
Faculty Members	P.Elakkiya
Student Members	K.Nivedha, V.Nandhini, M.Muthulakshmi, G.Akshaya, V.Rakshanaa, A.Shwetha

Table 4.6.2 Editorial board details of CSE HIGHLIGHTS

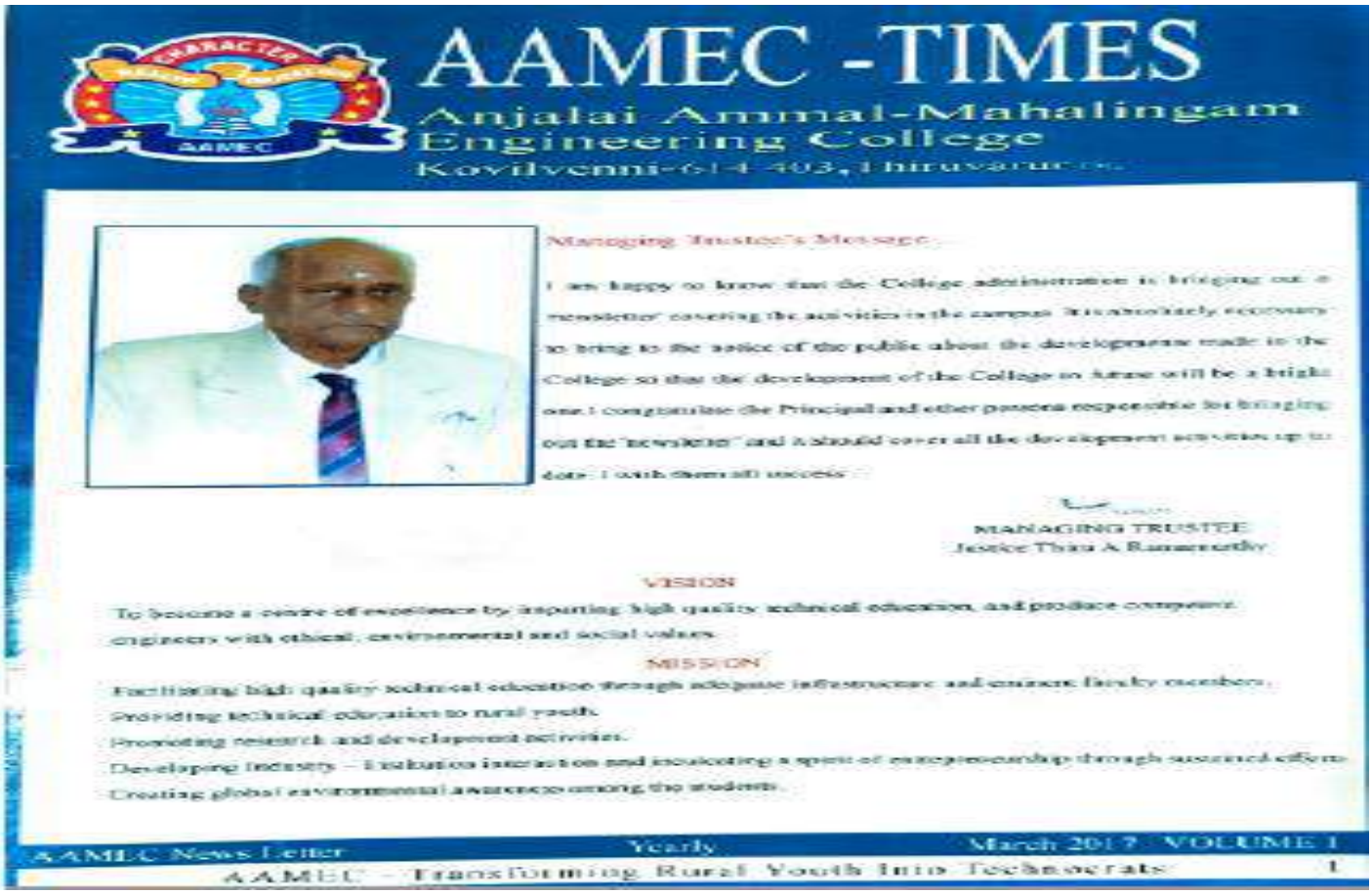






Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research. **Mission:M1:**To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:**To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.**M3:**To train students to enhance their problem-solving and programming skills. **M4:**To expose students to emerging technologies and tools in the field of computing.





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4.6.3 Participation in inter-institute events by students of the program of study(10)

Student attended conference conducted by various colleges

Anjalai Ammal Mahalingam Engineering College, Kovilvenni
Department of Computer Science and Engineeering
Student Confernce/Journal Publications

Name of the authors	Title of the paper	Journal or Conference	Name of the Journal & Publisher	Name of the Conference & Instituion	Date of Publication	Page No
R.Archana N.Gayathiri P.Ishwarya R.Preethi	Blockchain inspired IOT based information architecture for medicine logistics	CONFERENCE	International conference on intellectual research in science engineering and management	St.Joseph College of Engineering and Technology	09-Mar-20	nil
A.K.Divyadharani A.B.Gayatri N.M.Jeyanithy R.Padmavathi	Predictive Data Analytics for COVID-19 Using python	Journal	IJARESM, Impact Factor: 7.429, Volume 9 Issue 4, April - 2021		03-04-202	91-99
S.Harini A.Karthika M.Manimozhi	Liver Cancer Detection using Convolutional Neural Network on Deep Learning	CONFERENCE	International conference on intellectual research in science engineering and management	St.Joseph College of Engineering and Technology	09-Mar-20	nil

E.Harshitha G.Jaya Prabha S.Lakshmi Nivedhitha	Person Re-Identification by multiscale feature representation learning with random batch feature mask	CONFERENCE	International conference on intellectual research in science engineering and management	St.Joseph College of Engineering and Technology	09-Mar-20	nil
T.Monica A.B.Nushrath Jahan	Automated Interpersonal Distance Detection to Prevent the Risk of Covid-19 using Machine Learning Techniques	JOURNAL	INTERNATIONAL JOURNAL OF PUBLICATION AND REVIEWS		30-03-2021	nil
	Gas leakage detection and automatic booking through IOT	CONFERENCE	International conference on intellectual research in science engineering and management	St.Joseph College of Engineering and Technology	09-Mar-20	nil
S.Deepalakshmi B.Nithyasree S.Pavithra	Parameters of quality of service using fifth generation (5G) in cloud gaming	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
K.Kamalesh C.ArunPrakash R.Aswin S.AbdulKasim Fayas	Artificial Intelligence based Voice Assistant for NEWS Reading using reactJS	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
B.BalaShiva U.Madhesh K.Parimala Renga	Dynamically Partionable multiple Superscalar core pipeline for high instruction per clock	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
B.Ajay T.M .Muguntha n P.R.Amarnath	Secure content sharing using Blockchain and Unauthorized access detection	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
B.T.RAKSHANA C.SIVARANJANI A.G.SUDHESHNA V.PRADEEPAA	Identifying influential nodes in complex network using Machine learning Algorithm	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil

R.RAGAVI K.V.RAKSHANA S.SADHANA	Intelligent agricultural crop selection analysis using big data	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
M.SHANMUGA PRIYA D.SNEHA M.SOUNDARYA G.ABINAYA	Spam and Email Detection in Big data platform using Deep Learning Classifier	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
P.RAGAMALIGA P.SARANYA K.SASIREKHA N.SIVA BHARATHI	A novel block chain based model providing quality verification for cloud providers	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
R.SONALI M.SOWMIYA	Real time face mask detection for covid-19 pandemic using supervised learning of convolutional neural network	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
G.A.PRIYADHARSHINI	AN ADAPTIVE ON-DEMAND MULTIPATH ROUTING PROTOCOL WITH QOS SUPPORT FOR HIGH-SPEED MANET	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
R.PREETHI R.H.SOWMIYA M.VITHYA G.P.SWATHIKA	CHANGE DETECTION IN REMOTE SENSING IMAGES USING CNN IN DEEP LEARNING	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
R.S.SRIRAM S.VENKATESH S.YUKESH RAAJ	IMPLEMENTING ADVANCED GAMING AI USING REINFORCEMENT LEARNING	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
M.S.SUBASHBALAJI M. VENKATESHWARAN	Online Voting System using Non Interactive Zero Knowledge based on Block chain	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil

S.Diviya Sree B.Kaviya J.J.Menisha	Identification of Tea leaf Disease using Deep Learning	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
T.Akash S.Habeebulla S.Jafar Ali	Quality of Service framework for Multimedia services over Fifth Generation (5G) heterogeneous wireless networks	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
S.Akash S.Mukesh K.H.Mohamed Harish Hameed	Driver Drowsiness detection with individual differences using Eye aspect ratio	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
M.Naveen Kumar G.Balaji G.M.Prabakaran	Video Forensic analysis using Scalar invariant feature transform and deep learning Algorithm	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil
S.SWAMINATHAN M.VASANTHAN R. RAGUPATHI	Automated System for Extractive Text Summarization and Multiple-Choice Question Generation	CONFERENCE	National conference on recent trends and technology in computing	Arasu engineering college	01.04.2021	nil

Table 4.6.3.1 Student attended conference conducted by various colleges

Students participated in various events like paper presentation / debugging / web designing Academic Year 2021-2022

The students got overall champion trophy for active participation.

S.NO	NAME OF THE STUDENT	YEAR	EVENT TITLE	PLACE/INSTITUTION	PRIZE WON
1	ABITHARANI A	III CSE	paper presentation &Technical quiz	PMU,THANJAVUR	PARTICIPATED
2	ABURVAJ	III CSE	Paper presentation	PMU,THANJAVUR	PARTICIPATED
3	AKSHAYA.G	III CSE	paper presentation &Technical quiz	PMU,THANJAVUR	PARTICIPATED
4	ASHIFA SHERENE.S	III CSE	Paper presentation	PMU,THANJAVUR	PARTICIPATED
5	ATCHAYA R (SPORTS)	III CSE	paper presentation &Technical quiz	PMU,THANJAVUR	PARTICIPATED
6	DEEBU RUBIYAE	III CSE	paper presentation &Technical quiz, Photography	PMU,THANJAVUR	PARTICIPATED
7	DESIKA T	III CSE	paper presentation &Technical quiz	PMU,THANJAVUR	PARTICIPATED
8	DHARSHINI.J	III CSE	Paper presentation	PMU,THANJAVUR	PARTICIPATED
9	DHIVYAV	III CSE	Paper presentation	PMU,THANJAVUR	PARTICIPATED
10	DIVYASREE R	III CSE	Paper presentation	PMU,THANJAVUR	PARTICIPATED
11	JEEVITHAN	III CSE	Paper presentation	PMU,THANJAVUR	PARTICIPATED
12	KEERTHIKA R	III CSE	Paper presentation	PMU,THANJAVUR	PARTICIPATED
13	MANOSHREE T	III CSE	Technical quiz	PMU,THANJAVUR	PARTICIPATED
14	MUTHULAKSHMI.M	III CSE	paper presentation &Technical quiz	PMU,THANJAVUR	PARTICIPATED
15	NISHANTHINI V	III CSE	Paper presentation	PMU,THANJAVUR	PARTICIPATED

Table 4.6.3.2 Students participated in various events like paper presentation / debugging / web designing

Academic Year 2019-2020

S.NO	NAME	YEAR	TITLE	PLACE	PRIZE WON
1.	A.PRAKASH	III	WEB DESIGNING(TECHNOTHIRST'19)	A.V.C COLLEGE OF ENGINEERING	II PRIZE
2.	V.SANTHOSH DEVAN	III	GOLD SEEKER EVENT(LEADERSHIP SYMPOSIUM)	UNIVERSITY COLLEGE OF ENGINEERING,ANNA UNIVERSITY,TRICHY	WINNER
3.	SHANMUGAPRIYA	III	AD-ZAP(LAKSHYA 2K19)	SARANATHAN COLLEGE OF ENGINEERING	PARTICIPATED
4.	NITHYAKALA	IV	AD-ZAP(LAKSHYA 2K19)	SARANATHAN COLLEGE OF ENGINEERING	PARTICIPATED
5.	PRAGATHI	IV	AD-ZAP(LAKSHYA 2K19)	SARANATHAN COLLEGE OF ENGINEERING	PARTICIPATED
6.	R.VEENA	IV	BEST MANAGER(LAKSHYA 2K19)	SARANATHAN COLLEGE OF ENGINEERING	PARTICIPATED
7.	A.K.DIVYADHARNAI	III	PPT PRESENTATION	ANNA UNIVERSITY	PARTICIPATED
8.	S.SURYA	IV	QUIZ BLADE (TECHNOTHIRST'19)	A.V.C COLLEGE OF ENGINEERING	II PRIZE
9.	S.SURYA	IV	PAPER PRESENTATION(TECHNOTHIRST'19)	A.V.C COLLEGE OF ENGINEERING	II PRIZE
10.	S.SURYA	IV	BLIND CODING(TECHNOTHIRST'19)	A.V.C COLLEGE OF ENGINEERING	II PRIZE
11.	S.SURYA	IV	CODE CRACKING (TECHNOTHIRST'19)	A.V.C COLLEGE OF ENGINEERING	II PRIZE
12.	S.SURYA	IV	WEB DESIGNING (TECHNOTHIRST'19)	A.V.C COLLEGE OF ENGINEERING	I PRIZE
13.	A.PRAKASH	IV	WEB DESIGNING (TECHNOTHIRST'19)	A.V.C COLLEGE OF ENGINEERING	I PRIZE
14.	A.PRAKASH	IV	QUIZ BLADE (TECHNOTHIRST'19)	A.V.C COLLEGE OF ENGINEERING	II PRIZE
15.	P.MANIBHARATH	III	MIND SWEEPER(CISABZ'19	KINGS COLLEGE OF ENGINEERING	I PRIZE
16.	M.PRABHAKARAN	III	BUG SMASH(CISABZ'19	KINGS COLLEGE OF ENGINEERING	I PRIZE
17.	C.MUGESH	III	BUG SMASH(CISABZ'19	KINGS COLLEGE OF ENGINEERING	II PRIZE
18.	RAMACHANDRAN	III	BUG SMASH(CISABZ'19	KINGS COLLEGE OF ENGINEERING	I PRIZE
19.	RAMACHANDRAN	III	BUG SMASH(CISABZ'19	KINGS COLLEGE OF ENGINEERING	II PRIZE
20.	P.J.KISHORENATH	III	BUG SMASH(CISABZ'19	KINGS COLLEGE OF ENGINEERING	II PRIZE

Table 4.6.3.3 Awards received in the events/ conferences organized by other institutes

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research. **Mission:M1:**To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:**To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.**M3:**To train students to enhance their problem-solving and programming skills. **M4:**To expose students to emerging technologies and tools in the field of computing.

Academic Year 2018-2019

S.NO	NAME	YEAR	TITLE	PLACE	PRIZE WON
1.	A.G.SUDHESHNA	III	PAPER PRESENTATION IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY,	PARTICIPATED
2.	A.PRAKASH	III	WEBDESIGNING IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY, VALLAM,THANJAVUR	I PRIZE
3.	B.T RAKSHANA	III	PAPER PRESENTATION IN SYMPOSIUM ["BINCODE" 2K18]	VALLAM,THANJAVUR	PARTICIPATED
4.	M.SOWMIYA	III	CONTENT WRITING IN SYMPOSIUM ["BINCODE" 2K18]	VALLAM,THANJAVUR	PARTICIPATED
5.	T.MONICA	III	CONTENT WRITING IN SYMPOSIUM ["BINCODE" 2K18]	VALLAM,THANJAVUR	PARTICIPATED
6.	M.SOWMIYA	III	DEBUGGING IN SYMPOSIUM ["BINCODE" 2K18]	VALLAM,THANJAVUR	PARTICIPATED
7.	V.GURUPRASATH	III	WEBDESIGNING IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY, VALLAM,THANJAVUR	I PRIZE
8.	S.AISWARYA	III	PRESENTATION(AVESHA 2K'18)	ANNA UNIVERSITY ,BIT CAMPUS	PARTICIPATED
9.	S.AISWARYA	III	PRJECT KANKATCHII(ELEKRITIZAT-16)	PMU	PARTICIPATED
10.	S.AISWARYA	III	PROJECT PRESENTATION(TECH MAZE 2K'18)	SRM,TRB COLLEGE	PARTICIPATED
11.	S.MANISHANKAR	III	DEBUGGING IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY, VALLAM,THANJAVUR	I PRIZE
12.	S.INDRAJIT	III	DEBUGGING IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY, VALLAM,THANJAVUR	I PRIZE
13.	A.B.GAYATRI	III	DEBUGGING IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY, VALLAM,THANJAVUR	PARTICIPATED
14.	A.K.DIVYADHARANI	III	DEBUGGING IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY, VALLAM,THANJAVUR	PARTICIPATED
15.	B.NITHYASHREE	III	DEBUGGING IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY, VALLAM,THANJAVUR	PARTICIPATED
16.	S.INDRAJIT	III	ENTERPRENUR SKILLTEST (INVIGORATE)	PMU	III PRIZE
17.	S.INDRAJIT	III	CODE DEBUGGING (INVIGORATE)	PMU	PARTICIPATED

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18.	V.GURU PRASATH	IV	WEB DESIGNING IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY, VALLAM,THANJAVUR	I PRIZE
19.	R.PREETHI	III	DEBUGGING IN SYMPOSIUM ["BINCODE" 2K18]	PRIST UNIVERSITY, VALLAM,THANJAVUR	III PRIZE
20.	E.PREMIKA	III	PAPER PRESENTATION [BLACK & WHITE SYMPOSIUM]	PARISUTHAM INSTITUTE OF TECHNOLOGY AND SCIENCE, THANJAVUR	PARTICIPATED
21.	R.SHOBANA	III	PAPER PRESENTATION [BLACK & WHITE SYMPOSIUM]	PARISUTHAM INSTITUTE OF TECHNOLOGY AND SCIENCE, THANJAVUR	PARTICIPATED
22.	R.VISHNU PRIYA	III	PAPER PRESENTATION [BLACK & WHITE SYMPOSIUM]	PARISUTHAM INSTITUTE OF TECHNOLOGY AND SCIENCE, THANJAVUR	PARTICIPATED
23.	M.RAMYA	IV	DEBUGGING [SYMPOSIUM-INFOFEZ'18]	A.V.V.M SRI PUSHPAM COLLEGE,POONDI	PARTICIPATED
24.	R.RAJARAJAN	IV	DEBUGGING [SYMPOSIUM-INFOFEZ'18]	A.V.V.M SRI PUSHPAM COLLEGE,POONDI	PARTICIPATED
25.	C.SIVANESH	IV	DEBUGGING [SYMPOSIUM-INFOFEZ'18]	A.V.V.M SRI PUSHPAM COLLEGE,POONDI	PARTICIPATED
26.	S.NAVEEN KUMAR	IV	DEBUGGING [SYMPOSIUM-INFOFEZ'18]	A.V.V.M SRI PUSHPAM COLLEGE,POONDI	PARTICIPATED
27.	S.SURYA	IV	PAPER PRESENTATION [SYMPOSIUM-INFOFEZ'18]	A.V.V.M SRI PUSHPAM COLLEGE,POONDI	PARTICIPATED
28.	R.THAMIZH OVIYUM	IV	PAPER PRESENTATION [SYMPOSIUM-INFOFEZ'18]	A.V.V.M SRI PUSHPAM COLLEGE,POONDI	PARTICIPATED
29.	J.SUBHASHRI	IV	QUIZ [SYMPOSIUM-INFOFEZ'18]	A.V.V.M SRI PUSHPAM COLLEGE,POONDI	PARTICIPATED
30.	G.SANTHYA	III	DEBUGGING TEKWIZARD5'2018 (NATIONAL LEVEL TECHNICAL SYMPOSIUM) 17.02.2018	E.G.S.PILLAY ENGINEERING COLLEGE,NAGAPATTINAM	PARTICIPATED
31.	R.VEENA	III	DEBUGGING TEKWIZARD5'2018 (NATIONAL LEVEL TECHNICAL SYMPOSIUM)	E.G.S.PILLAY ENGINEERING COLLEGE,NAGAPATTINAM	PARTICIPATED
32.	S.SWETHA	III	DEBUGGING TEKWIZARD5'2018 (NATIONAL LEVEL TECHNICAL SYMPOSIUM) 17.02.2018	E.G.S.PILLAY ENGINEERING COLLEGE,NAGAPATTINAM	PARTICIPATED
33.	R.VISHNUPRIYA	III	DEBUGGING TEKWIZARD5'2018 (NATIONAL LEVEL TECHNICAL SYMPOSIUM) 17.02.2018	E.G.S.PILLAY ENGINEERING COLLEGE,NAGAPATTINAM	PARTICIPATED

Table 4.6.3.4 Awards received in the events/ conferences organized by other institutes

Students attended workshop / webinar / Internship / NPTEL Courses / Training / Seminar

2021-2022						
1.	820419104085	VINOTHKUMAR M	II YEAR	INTERNSHIP	GRAPHICAL DESIGNING	1/1/2021
2.	820417104065	M.SOWMIYA	IV YEAR	INTERNSHIP	VIRTUAL INTERNSHIP IN MACHINE LEARNING (INTERNSHIP DURATION 15 DEC 2020 TO 15 JAN 2021)	1/19/2021
3.	820417104076	M VITHYA	IV YEAR	ONLINE TRAINING	JAVA FOR BEGINNERS-LEARN ALL THE BASICS OF JAVA	2/22/2021
4.	820420104014	D DIVYA	I YEAR	ONLINE TRAINING	YOUTH RED CROSS	2/28/2021
5.	820419104058	P. SANTHAKUMAR	III YEAR	WORKSHOP	ADVANCED EXCEL WORKSHOP	3/28/2021
6.	820420104080	VINOTH KUMAR.S	I YEAR	ONLINE TRAINING	PYTHON	3/30/2021
7.	820420104061	SHWETHA. A	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING CERTIFICATION TEST	4/4/2021
8.	820420104009	DEVADHARSHINI.P	I YEAR	ONLINE TRAINING	SANFOUDARY ONLINE CERTIFICATION TEST CONTENT	4/4/2021
9.	820420104029	KASTHURI T	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING CERTIFICATION TEST	4/4/2021
10.	820420104009	DEVADHARSHINI.P	I YEAR	ONLINE TRAINING	SANFOUDARY	4/4/2021
11.	820420104032	MAHALAKSHMI KARUNAKARAN	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING CERTIFICATION TEST	4/4/2021
12.	820420104035	NAGENDRAN.S	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING ONLINE CERTIFICATION TEST	4/4/2021
13.	8825461671	KASTHURI T	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING CERTIFICATION TEST	4/4/2021
14.	820420104072	T.THIRUMULLAI	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING CERTIFICATION TEST	4/4/2021
15.	820420104018	DURGA	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING ONLINE TEST	4/4/2021
16.	820420104010	DEVADHARSHINI.R	I YEAR	ONLINE TRAINING	SANFOUDARY	4/4/2021
17.	820420104053	SAILESH S	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING ONLINE CERTIFICATION TEST	4/4/2021
18.	820420104053	SAILESH S	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING ONLINE CERTIFICATION TEST	4/4/2021
19.	820420104033	MIRUDHULANI S	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING CERTIFICATION TEST	4/4/2021
20.	820420104019	DURGASHINI	I YEAR	ONLINE TRAINING	PYTHON PROGRAMMING CERTIFICATION TEST	4/4/2021

21.	820420104059	SERAN.S	II YEAR	ONLINE TRAINING	PYTHON PROGRAMMING ONLINE CERTIFICATE TEST	4/4/2021
22.	820419104054	RRAMKUMAR	IV YEAR	INTERNSHIP	QUIZ PROGRAM	4/6/2021
23.	820419104082	VENKADA SUBRAMANIAN.D	III YEAR	WORKSHOP	QUIZ SYSTEM BY USING PHP	4/6/2021
24.	820419104068	SIVANANDHINI.R	III YEAR	ONLINE TRAINING	FUNDAMENTALS OF DIGITAL MARKETING	4/8/2021
25.	820419104046	NITHYASHREE. R		ONLINE TRAINING	FUNDAMENTALS OF DIGITAL MARKETING	4/8/2021
26.	820419104058	SANTHAKUMAR	IV YEAR	ONLINE TRAINING	FUNDAMENTALS OF DIGITAL MARKETING	4/9/2021
27.	820419104085	VINOTHKUMAR M	II YEAR	ONLINE TRAINING	THE FUNDAMENTAL OF DIGITAL MARKETING	4/9/2021
28.	820419104047	NIVEDHA K	II YEAR	HACKTATHON	FUNDAMENTAL OF DIGITAL MARKETING	4/9/2021
29.	820419104029	R. KEERTHIKA	II YEAR	ONLINE TRAINING	JAVA TRAINING	4/9/2021
30.	820419104082	VENKADA SUBRAMANIAN.D	II YEAR	ONLINE TRAINING	FUNDAMENTALS OF DIGITAL MARKETING	4/10/2021
31.	820420104051	R.RUBIKA	II YEAR	ONLINE TRAINING	GOOGLE DIGITAL UNLOCKED	4/10/2021
32.	820419104068	SIVANANDHINI.R	II YEAR	WORKSHOP	ADVANCED EXCEL	4/11/2021
33.	820419104046	NITHYASHREE.R	II YEAR	WORKSHOP	ADVANCED EXCEL	4/11/2021
34.	820418104039	S.MAHISHA	III YEAR	WEBINAR/SEMINAR	HOW TO BECOME A SUCCESSFUL ENTREPRENEUR	4/12/2021
35.	820418104007	D.AKSHAYA	III YEAR	WEBINAR/SEMINAR	"HOW TO BECOME A SUCCESSFUL ENTREPRENEUR "	4/12/2021
36.	820420104081	VINOTH KUMAR S	II YEAR	ONLINE TRAINING	C PROGRAMMING BASICS	4/15/2021
37.	820419104044	NISHANTHINI V	II YEAR	ONLINE TRAINING	HTML	4/16/2021
38.	820419104044	NISHANTHINI V	II YEAR	ONLINE TRAINING	FRONT END DEVLOPMENT CSS	4/18/2021
39.	820419104047	NIVEDHA K	II YEAR	ONLINE TRAINING	AI WITH PYTHON	4/24/2021
40.	820418104008	AMBRISH.T	III YEAR	ONLINE TRAINING	ONLINE COMPUTER PROGRAMMING	4/24/2021
41.	820418104054	G.RISHI KUMAR	III YEAR	WEBINAR/SEMINAR	BUILD A FACE RECOGNITION APPLICATION USING PYTHON	4/24/2021
42.	820418104030	KARISHMAA ST	III YEAR	WEBINAR/SEMINAR	GUVI - AI FOR INDIA EVENT	4/25/2021
43.	820418104086	SIVASURYA G	III YEAR	WEBINAR/SEMINAR	BUILD A FACE RECOGNITION APPLICATION USING PYTHON .	4/25/2021
44.	820418104010	ARUNPRAKASH.R	III YEAR	WEBINAR/SEMINAR	GUVI AI ONLINE EVENT	4/25/2021
45.	820420104006	BALAJI S K	II YEAR	ONLINE TRAINING	AI_FOR_INDIA EVENT (BUILD A FACE RECOGNITION APPLICATION USING PYTHON)	4/25/2021

46.	820418104031	KARTHICK S	III YEAR	ONLINE TRAINING	PYTHON	4/30/2021
47.	820419104019	DHIVYA V	II YEAR	ONLINE TRAINING	JAVA	5/13/2021
48.	820419104046	NITHYASHREE.R	II YEAR	ONLINE TRAINING	SPOKEN TUTORIAL IIT BOMBAY C	5/13/2021
49.	820418104031	KARTHICK S	III YEAR	WEBINAR/SEMINAR	IOT AND AI ADOPTION FOR INDUSTRIAL REVOLUTION	5/13/2021
50.	820418104054	G.RISHI KUMAR	III YEAR	ONLINE TRAINING	C TRAINING	5/13/2021
51.	820418104066	SIVASURYA G	III YEAR	ONLINE TRAINING	C TRAINING TEST	5/13/2021
52.	820418104066	SIVASURYA G	III YEAR	ONLINE TRAINING	JAVA	5/14/2021
53.	820419104054	K RAMKUMAR	II YEAR	ONLINE TRAINING	JAVA TRAINING	5/21/2021
54.	820420104025	V.HARISH	I YEAR	WEBINAR/SEMINAR	EXPERIENCES ON FACULTY INNOVATION AND ENTREPRENEURSHIP	5/24/2021
55.	820420104062	K.SIBI	I YEAR	NPTEL COURSE	PROBLEM SOLVING THROUGH PROGRAMMING IN C	5/24/2021
56.	820420104004	ABINESH.A	I YEAR	WEBINAR/SEMINAR	EXPERIENCES ON FACULTY INNOVATION AND ENTREPRENEURSHIP	5/24/2021
57.	820420104020	GANESH K R	I YEAR	WEBINAR/SEMINAR	EDII-ANNA BUSINESS INCUBATION RESEARCH FOUNDATION	5/24/2021
58.	820420104012	DHANASRI.A	I YEAR	WEBINAR/SEMINAR		5/25/2021
59.	820419104046	NITHYASHREE.R	II YEAR	ONLINE TRAINING	SPOKEN TUTORIAL JAVA	5/27/2021
60.	820418104030	KARISHMAA ST	III YEAR	WEBINAR/SEMINAR	IPEM	6/5/2021
61.	820416104076	VAISHNAVI G	III YEAR	INTERNSHIP	INDUSTRIAL PROGRAM ON WEB DEVELOPMENT(TRAINING AND PROJECT)	6/10/2021
62.	820416104017	DHANASRI N	III YEAR	ONLINE TRAINING	TCS ION CAREER EDGE - YOUNG PROFESSIONAL	6/13/2021
63.	820418104036	MADHUMITHA.B	III YEAR	ONLINE TRAINING	TCS ION CAREER EDGE - YOUNG PROFESSIONAL	6/13/2021
64.	820418104018	T.DEEPIKA	III YEAR	ONLINE TRAINING	TCS ION CAREER EDGE - YOUNG PROFESSIONAL	6/13/2021
65.	820416104076	VAISHNAVI G	IV YEAR	ONLINE TRAINING	TCS ION CAREER EDGE - YOUNG PROFESSIONAL COURSE	6/14/2021
66.	820416104052	PRIYADHARSHINI.R	III YEAR	ONLINE TRAINING	TCS ION CAREER EDGE-YOUNG PROFESSIONAL	6/14/2021
67.	82042010478	VIJAY K	I YEAR	NPTEL COURSE	PROGRAMMING IN C	6/25/2021
68.	820416104010	ARUNPRAKASH R	III YEAR	ONLINE TRAINING	RDBMS POSTGRE SQL	7/10/2021
69.	820419104068	SIVANANDHINI. R	II YEAR	WORKSHOP	C PROGRAMMING	7/27/2021
70.	820420104063	VISHNUVARDHAN B S	I YEAR	NPTEL COURSE	PROGRAMMING IN C	8/19/2021

71.	820420104067	SUBHADHARANI J	II YEAR	ONLINE TRAINING	GOOGLE ANALYTICS	8/22/2021
72.	820418104001	ABDULLAH ANSAR S	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	10/26/2021
73.	820418104003	ABINAYA S	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	10/27/2021
74.	820418104017	DHANASRI N	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	10/28/2021
75.	820418104030	KARISHMAA S T	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	10/26/2021
76.	820418104036	MADHUMITHA B	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	10/30/2021
77.	820418104040	MEENATCHI R	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	10/31/2021
78.	820418104042	MOHAMED RISWANMALIQ P S	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/1/2021
79.	820418104044	NARENDRAN S	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/2/2021
80.	820418104045	NATARAJAN S	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/3/2021
81.	820418104046	NAVASEEVAGAN N	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/4/2021
82.	820418104048	NIKITHA S	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/5/2021
83.	820418104049	PARVATHASRI A	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/6/2021
84.	820418104050	PRAGADEESH S	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/7/2021
85.	820418104055	SABARINATH B	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/8/2021
86.	820418104056	SAKTHI S	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/9/2021
87.	820418104060	SERAFIN J	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/10/2021
88.	820418104065	SHIVAKARTHIKEYAN B	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/11/2021
89.	820418104067	SNEHA T	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/12/2021
90.	820418104070	SOWNDARYA S V	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/13/2021
91.	820418104071	SUBATHRA R	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/14/2021
92.	820418104081	YOGESHWARAN R	IV YEAR	ISTE-WORKSHOP	CYBER FORENSICS	11/15/2021

Table 4.6.3.5 Students attended workshop / webinar / Internship / NPTEL Courses / Training / Seminar

2020-2021						
1.	820418104010	ARUNPRAKASH R	III YEAR	ONLINE TRAINING	JAVA BUSINESS APPLICATION	1/6/2020
2.	820417104048	RAGAMALIGA P	III YEAR	NPTEL COURSE	PROGRAMMING INJAVA	1/15/2020
3.	820417104014	DIVYADHARANI A K	III YEAR	NPTEL COURSE	NPTEL- ARTIFICIAL INTELLIGENCE	1/15/2020
4.	820418104012	BALAMURUGAN G	II YEAR	ONLINE TRAINING	JAVA BUSINESS APPLICATION	1/24/2020
5.	820419104048	PEARARULSELVI S	I YEAR	NPTEL COURSE	PROGRAMMING IN C	2/12/2020
6.	820418104031	KARTHICK S	II YEAR	ONLINE TRAINING	JAVA BUSINESS APPLICATION	3/1/2020
7.	820417104038	NAVEEN KUMAR M	III YEAR	WORKSHOP	FIRST STEP TOWARDS IIOT	3/6/2020
8.	820417104006	ARCHANA R	III YEAR	ONLINE TRAINING	RESPONSIVE WEB DESIGN	3/10/2020
9.	820418104075	SYED MUHAMMED ASHMUEEL	III YEAR	ONLINE TRAINING	JAVA BUSINESS APPLICATION TRAINING	3/14/2020
10.	820418104041	MEERA T	III YEAR	ONLINE TRAINING	RDBMS POSTGRESQL	3/14/2020
11.	820418104054	G.RISHI KUMAR	III YEAR	ONLINE TRAINING	JAVA BUSINESS APPLICATION TRAINING.	3/14/2020
12.	820418104054	G.RISHI KUMAR	II YEAR	ONLINE TRAINING	JAVA BUSINESS APPLICATION TRAINING	3/14/2020
13.	820418104075	SYED MUHAMMED ASHMUEEL. S	II YEAR	ONLINE TRAINING	CERTIFICATE FOR COMPLETION OF JAVA BUSINESS APPLICATION TRAINING	3/14/2020
14.	820418104014	DARSHINI. D	III YEAR	WEBINAR/SEMINAR	WEBINAR ON VARIOUS TOPICS LIKE AI, IMAGE PROCESSING, PYTHON, ETC AMD NPTEL CERTIFICATE	4/8/2020
15.	820417104040	NUSRATH JAHAN A B	III YEAR	ONLINE TRAINING	CAREER EDGE - KNOWLEDGE THE LOCKDOWN	4/13/2020
16.	820417104048	RAGAMALIGA P	III YEAR	ONLINE TRAINING	CAREER EDGE (TCS ION)	4/16/2020

17.	820417104040	NUSRATH JAHAN A B	III YEAR	ONLINE TRAINING	THE FUNDAMENTALS OF DIGITAL MARKETING	4/19/2020
18.	820419104039	NANDHINI V	I YEAR	WEBINAR/SEMINAR	"C PROGRAMMING"	5/7/2020
19.	820417104040	NUSRATH JAHAN A B	III YEAR	WEBINAR/SEMINAR	LANGUAGE ESSENTIALS : GET SET FOR POST-LOCKDOWN	5/23/2020
20.	820417104048	RAGAMALIGA P	III YEAR	INPLANT TRAINING	DIPLOMA IN C AND C++ PROGRAMMING	6/1/2020
21.	820417104048	RAGAMALIGA P	IV YEAR	ONLINE TRAINING	PROGRAMMING WITH PYTHON	6/1/2020
22.	820419104039	NANDHINI V	I YEAR	WEBINAR/SEMINAR	CLOUD APPLICATIONS AND DEPLOYMENT MAINTANCE	6/1/2020
23.	820417104040	NUSRATH JAHAN A B	III YEAR	WEBINAR/SEMINAR	MOBILE APPLICATION DEVELOPMENT	6/2/2020
24.	820417104702	V.PRADEEPAA	III YEAR	NPTEL COURSE	ENHANCING SOFTSKILL AND PERSONALITY	6/4/2020
25.	820419104047	NIVEDHA K	IV YEAR	HACKTATHON	STEP INTO ROBOTIC PROCESS AUTOMATION	6/11/2020
26.	820417104048	RAGAMLIGA P	IV YEAR	WEBINAR/SEMINAR		6/11/2020
27.	820419104039	NANDHINI V	I YEAR	WEBINAR/SEMINAR	PYTHON PROGRAMMING	6/11/2020
28.	820419104034	S. MOHAMED THAHIR	II YEAR	WEBINAR/SEMINAR	DIGITAL GARAGE MARKETING	6/20/2020
29.	820417104048	RAGAMALIGA P	IV YEAR	INPLANT TRAINING	ANDROID APP DEVELOPMENT	6/20/2020
30.	820419104039	NANDHINI V	I YEAR	WEBINAR/SEMINAR	FUTURE OF ENGINEERING EDUCATION	6/20/2020
31.	820419104034	S. MOHAMED THAHIR	II YEAR	ONLINE TRAINING	PYTHON BOOTCAMP	7/2/2020
32.	820418104040	MEENATCHI.R	III YEAR	ONLINE TRAINING	RDBMS POSTGRESQL	7/7/2020
33.	820417104076	M VITHYA	IV YEAR	WEBINAR/SEMINAR	JAVA BUSINESS APPLICATION	7/16/2020
34.	820417104076	M VITHYA	IV YEAR	WEBINAR/SEMINAR	ARE YOU READY TO PITCH?	7/23/2020
35.	820417104048	RAGAMALIGA P	IV YEAR	WEBINAR/SEMINAR	CLOUD AMBASSADOR - AWS	7/27/2020
36.	820417104076	M VITHYA	IV YEAR	WEBINAR/SEMINAR	CLOUD AMBASSADORS OPEN MIC	7/27/2020
37.	820417104040	NUSRATH JAHAN A B	IV YEAR	NPTEL COURSE	PROGRAMMING IN JAVA	9/1/2020
38.	820419104064	SATHYA JAYASRI S	I YEAR	ONLINE TRAINING		9/6/2020
39.	820417104028	MADHESH	IV YEAR	ONLINE TRAINING	NETWORKS AND NETWORK SECURITY	9/15/2020
40.	820418104066	G. SIVASURYA	III YEAR	WEBINAR/SEMINAR	TECHNOLOGY TODAY AND TOMORROW IN FULL STACK DEVELOPMENT	10/3/2020
41.	820418104054	G.RISHI KUMAR	III YEAR	WEBINAR/SEMINAR	FULL STACK DEVELOPMENT.	10/3/2020
42.	820418104054	G.RISHI KUMAR	III YEAR	WEBINAR/SEMINAR	FULL STACK DEVELOPMENT.	10/3/2020

43.	820418104021	ETHAYASIRPHYS	III YEAR	WEBINAR/SEMINAR	FULL STACK DEVELOPMENT	10/3/2020
44.	820418104054	G.RISHI KUMAR	III YEAR	WEBINAR/SEMINAR	FULL STACK DEVELOPMENT	10/3/2020
45.	820418104066	SIVASURYA G	III YEAR	WEBINAR/SEMINAR	TECHNOLOGY TODAY AND TOMORROW IN FULL STACK DEVELOPMENT.	10/3/2020
46.	820419104084	VIJITHRA P	II YEAR	INPLANT TRAINING	JAVA BUSINESS APPLICATION	10/11/2020
47.	820418104008	AMBRISH T		WEBINAR/SEMINAR	RDBMS POSTGRESQL	10/11/2020
48.	820418104012	BALAMURUGAN G	III YEAR	ONLINE TRAINING	RDBMS POSTGRESQL	10/11/2020
49.	820417104017	HABEEBULLA S	IV YEAR	WEBINAR/SEMINAR	JAVA BUSINESS APPLICATION	10/11/2020
50.	820417104019	E.HARSHITHA	III YEAR	ONLINE TRAINING	JAVA BUSINESS APPLICATION	10/11/2020
51.	820419104046	NITHYASHREE. R	II YEAR	ONLINE TRAINING	JAVA BUSINESS APPLICATION TRAINING	10/11/2020
52.	820418104014	DARSHINI. D	III YEAR	WORKSHOP	WORKSHOP, WEBINAR, NPTEL,	10/15/2020
53.	820418104041	MEERA T	III YEAR	WORKSHOP	WORKSHOP	10/15/2020
54.	820419104068	SIVANANDHINI.R		NPTEL COURSE	PROGRAMMING IN JAVA	12/19/2020
55.	820419104074	SUBASRI M		NPTEL COURSE	PROGRAMMING IN JAVA	12/19/2020
56.	820419104074	SUBASRI M		NPTEL COURSE	PROGRAMMING IN C	12/19/2020
57.	820419104046	NITHYASHREE. R	IV YEAR	NPTEL COURSE	PROGRAMMING IN JAVA	12/19/2020
58.	820419104046	NITHYASHREE. R	IV YEAR	NPTEL COURSE	PROBLEM SOLVING THROUGH PROGRAMMING IN C	12/19/2020
59.	820419104068	SIVANANDHINI.R	III YEAR	NPTEL COURSE	PROBLEM SOLVING THROUGH PROGRAMMING IN C	12/19/2020
60.	820417104060	SIVA BHARATHI N	IV YEAR	INTERNSHIP	FULL STACK WEB DEVELOPER	12/20/2020
61.	820417104040	NUSRATH JAHAN A B	IV YEAR	INTERNSHIP	MACHINE LEARNING	12/21/2020
62.	820417104064	SOUNDARYA M	IV YEAR	INTERNSHIP	MACHINE LEARNING IN AIROBOTICA	12/21/2020

Table 4.6.3.6 List of student participants in workshop / webinar / Internship / NPTEL Courses / Training / Seminar in academic year 2020-2021

2019-2020						
1.	820417104051	RAKSHANA B T	IV YEAR	SYMPOSIUM	PAPER PRESENTATION(PPT)	9/7/2018
2.	820417104071	A.G.SUDHESHNA	II YEAR	INTERNSHIP	BICODE	9/7/2018
3.	820417104027	LAKSHMI NIVEDHITHA.S	IV YEAR	INTERNSHIP	ORACLE	5/24/2019
4.	820417104076	M VITHYA	III YEAR	INPLANT TRAINING	DIPLOMA IN C & C++ PROGRAMMING	6/12/2019
5.	820417104073	VASANTHAN	III YEAR	WORKSHOP	HARDWARE AND NETWORKING	8/17/2019
6.	820417104072	SWAMINATHAN	IV YEAR	WORKSHOP	HARDWARE AND NETWORKING	8/19/2019
7.	820418104027	R.S.ISWARYA	III YEAR	WORKSHOP	INTERNET OF THINGS	10/19/2019
8.	820417104051	RAKSHANA B T	IV YEAR	WORKSHOP	ETHICAL HACKING WORKSHOP	10/19/2019
9.	820417104076	M VITHYA	III YEAR	WORKSHOP	ETHICAL HACKING WORKSHOP	10/19/2019
10.	820418104021	ETHAYASIRPHY S	II YEAR	WORKSHOP	INTERNET OF THINGS	10/19/2019
11.	820418104027	ISWARYA RS	II YEAR	WORKSHOP	INTERNET OF THINGS	10/19/2019
12.	820418104013	BANU RITHIKA R	II YEAR	WORKSHOP	IOT	10/19/2019
13.	820418104035	MADHUBALA R	II YEAR	WORKSHOP	INTERNET OF THINGS WORKSHOP	10/19/2019
14.	820418104033	KIRUTHIKA. S	II YEAR	WORKSHOP	INTERNET OF THINGS	10/19/2019
15.	820418104003	ABINAYA. S	II YEAR	WORKSHOP	INTERNET OF THINGS	10/19/2019
16.	820418104038	MAHESWARI.S	II YEAR	WORKSHOP	WAC(WHAT AFTER COLLEGE)WORKSHOP SERIES AT NIT TRICHY.	10/19/2019
17.	820418104013	BANU RITHIKA .R	II YEAR	WORKSHOP	IOT	10/19/2019
18.	820417104071	A.G.SUDHESHNA	III YEAR	WORKSHOP	WORKSHOP SERIES	10/20/2019
19.	820418104029	JAYAPRITHVI R	II YEAR	WORKSHOP	MACHINE LEARNING	11/23/2019
20.	820417104045	PREETHI R	IV YEAR	INPLANT TRAINING	FUNDAMENTALS OF TELECOM	12/9/2019
21.	820417104046	PREETHI R	II YEAR	INPLANT TRAINING	WEB DEVELOPMENT, ANDROID, CORPORATE TRAINING TEST	12/19/2019
22.	820418104016	DEEPIKA T	II YEAR	INPLANT TRAINING	WEB DEVELOPMENT	12/23/2019

23.	820418104036	MADHUMITHA.B	II YEAR	INPLANT TRAINING	WEB DEVELOPMENT	12/23/2019
24.	820417104051	RAKSHANA B T	IV YEAR	INPLANT TRAINING	WEB DEVELOPMENT	12/26/2019
25.	820417104071	A.G.SUDHESHNA	III YEAR	INPLANT TRAINING	WEB DEVELOPMENT	12/26/2019
26.	820418104049	A.PARVATHA SRI	III YEAR	INPLANT TRAINING	WEB DEVELOPMENT	12/26/2019
27.	820418104049	A.PARVATHA SRI	II YEAR	WORKSHOP	ANDROID WORKSHOP	12/26/2019
28.	820418104052	PRIYADARSHINI.R	II YEAR	INPLANT TRAINING	WEB DEVELOPMENT	12/26/2019
29.	820418104052	PRIYADHARSHINI.R	II YEAR	WORKSHOP	ANDROID	12/26/2019
30.	820418104076	VAISHNAVI G	II YEAR	INPLANT TRAINING	INPLANT TRAINING IN WEB DEVELOPMENT	12/26/2019
31.	820418104076	VAISHNAVI G	II YEAR	WORKSHOP	WORKSHOP ON ANDROID IN CODEBIND TECHNOLOGY	12/26/2019

Table 4.6.3.7 List of student participants in workshop / webinar / Internship / NPTEL Courses / Training / Seminar in academic year 2019-2020

Student participants in workshop / webinar / Internship / NPTEL Courses / Training / Seminar in academic year 2022-2023

S. No.	Name of the student	Register No	Year/ Sem	Name of the organization with Place	Online / Offline	From Date (DD/MM/YYYY)
1	SANTHOSHINI.M	820419104059	IV/VII	Code Bind Technologies	offline	20.09.2022 to 24 .09.2022 (5 days)
2	TAMILPRABHA.R	820419104077	IV/VII	Code Bind Technologies	offline	20.09.2022 to 24 .09.2022 (5 days)
3	SUGASHINI.T	820419104076	IV/VII	Code Bind Technologies	offline	20.09.2022 to 24 .09.2022 (5 days)
4	VAISHNAVI.P	820419104078	IV/VII	Code Bind Technologies	offline	20.09.2022 to 24 .09.2022 (5 days)
5	SOUNDHARYA.P	820419104070	IV/VII	Code Bind Technologies	offline	20.09.2022 to 24 .09.2022 (5 days)
6	SARANYA.R	820419104061	IV/VII	Code Bind Technologies	offline	20.09.2022 to 24 .09.2022 (5 days)
7	SUBASHRI.D.R	820419104073	IV/VII	Code Bind Technologies	offline	20.09.2022 to 24 .09.2022 (5 days)
8	ARAVINTH.M	820420104301	III/V	Code Bind Technologies	offline	08.09.2022 to 12.09.2022 (5 days)
9	VINOTH KUMAR.S	820420104080	III/V	Code Bind Technologies	offline	08.09.2022 to 12.09.2022 (5 days)
10	VINOTH KUMAR.S	820420104081	III/V	Code Bind Technologies	offline	08.09.2022 to 12.09.2022 (5 days)
11	THIRUMULLAI.T	820420104072	III/V	Code Bind Technologies	offline	08.09.2022 to 12.09.2022 (5 days)
12	RAKSHANA.V	820420104047	III/V	Code Bind Technologies	offline	08.09.2022 to 12.09.2022 (5 days)
13	IHSHANA FARVEEN.K	820420104026	III/V	Code Bind Technologies	offline	08.09.2022 to 12.09.2022 (5 days)
14	NAGENDRAN.S	820420104035	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
15	HARISH.V	820420104025	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
16	SWETHA.A	820420104061	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
17	VISHNU PRIYA S.	820420104082	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
18	SRIVAISHNAVI.M .R	820420104065	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
19	SWATHI SHREE.S	820420104070	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
20	RAGUL KULOTHUNGAN. R	820420104045	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
21	VANTHIYATH THEVAN.A	820420104074	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
22	MIRUDHULANI.S	820420104033	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
23	DURGHASHINI.P	820420104019	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
24	DIVYA.D	820420104014	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)

25	SARUKESH.S	820420104057	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
26	GANESH.K.R	820420104020	III/V	Code Bind Technologies	offline	06.08.2022 to 10.08.2022 (5 days)
27	MAHALAKSHMI. K	820420104032	III/V	Code Bind Technologies	offline	03.08.2022 to 07.08.2022 (5 days)
28	SATHYA JEYASRI.S	820419104064	IV/VII	Code Bind Technologies	offline	01.08.2022 to 07.08.2022 (5 days)
29	VIJITHRA.P	820419104084	IV/VII	Code Bind Technologies	offline	01.08.2022 to 07.08.2022 (5 days)
30	SIVANANDHINI.R	820419104068	IV/VII	Code Bind Technologies	offline	01.08.2022 to 07.08.2022 (5 days)
31	Vinoth Kumar S	820420104080	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
32	Vinoth Kumar S	820420104081	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
33	Aravindh M	820420104301	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
34	Rakshanaa V	820420104047	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
35	Vignesh R	820420104077	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
36	Subashini S	820420104066	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
37	Thirumullai T	820420104072	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
38	Kasthuri T	820420104029	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
39	Monisha N	820420104034	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
40	Varsha T	820420104075	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
41	Diviyaprabha V	820420104016	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
42	Devadharshini P	820420104010	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
43	Shwetha A	820420104061	III/V	LOGRITHA TECHNOLOGIES	online	28/03/2022 to 27/04/2022 (3 MONTHS)
44	Abirami D	820421104001	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING	offline	24.2.23

				WORKSHOP)		
45	Adhisri M	820421104002	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
46	AfrasNasrin A	820421104003	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
47	Akalya J	820421104005	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
48	Ambalavanan N	820421104006	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
49	Arshavarthanan A	820421104007	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
50	Ashwin T	820421104009	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
51	Atchaya M	820421104010	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
52	Atchaya R	820421104011	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
53	Badri N	820421104012	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
54	Brindha S	820421104014	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
55	Chandrabalan S	820421104015	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23

56	Charumathi V	820421104016	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
57	Dhanush M	820421104017	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
58	Dharaniga R	820421104018	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
59	Dharun P	820421104019	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
60	Dheepthi N	820421104020	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
61	Dinesh S	820421104022	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
62	Divyasri M	820421104023	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
63	Dushyanth S	820421104024	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
64	Eswar Raj T	820421104025	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
65	Gobika M	820421104026	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
66	Harini P	820421104029	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING	offline	24.2.23

				WORKSHOP)		
67	Harish Thiyagarajan G	820421104030	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
68	Harshaa I	820421104031	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
69	Joel Levitus S	820421104032	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
70	Karnan C	820421104034	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
71	Keerthana A B	820421104036	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
72	KirishaPriya R	820421104037	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
73	Kuralarasi S	820421104038	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
74	Lakshmi R	820421104039	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
75	Logesh Kumar S	820421104040	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
76	Maheshwaran S	820421104041	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
77	MeenaLochani S	820421104042	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND	offline	24.2.23

				DEEP LEARNING WORKSHOP)		
78	Nisha M	820421104044	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
79	Prasanna V	820421104045	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
80	Rishikesavan A	820421104055	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
81	Rudhra M	820421104056	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
82	Sailesh Prasad R S	820421104059	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
83	Santhosh Kumar R	820421104061	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
84	Shalini R	820421104062	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
85	ShriVaishnavi V	820421104063	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
86	Srinivas R	820421104066	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
87	Sri Vaishali P	820421104067	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
88	Thirumalai S	820421104072	II/IV	PIXEL TO PREDICTION(IMAG	offline	24.2.23

				E PROCESSING AND DEEP LEARNING WORKSHOP)		
89	Thulasirajan B	820421104073	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
90	Vasanth B	820421104075	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
91	Vignash M	820421104079	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
92	Vigneshwaran V	820421104080	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
93	VishwakRagul R	820421104082	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23
94	AbubakerSithikRahuman	820421104701	II/IV	PIXEL TO PREDICTION(IMAGE PROCESSING AND DEEP LEARNING WORKSHOP)	offline	24.2.23

Table 4.6.3.8 List of student participants in workshop / webinar / Internship / NPTEL Courses / Training / Seminar in academic year 2022-2023



CRITERION 5

FACULTY INFORMATION AND CONTRIBUTIONS

CRITERION 5	FACULTY INFORMATION AND CONTRIBUTIONS	200

5. FACULTY INFORMATION AND CONTRIBUTIONS(200)

S. No.	Name	PAN No.	Qualification	Date of receiving higher Qualification	Area of Specialization	Designation	Date of Joining	Date on which Designated as Professor/ Associate Professor	Currently Asociated(Y/N)	Nature of Association (Regular/Contract/ Adjunct)	If contractual mention Fulltime or Part time	Date of Leaving (In case Currently Associated is "No")
1.	Dr.K.Velmurugan	ADOPV0546K	Ph.D.	10/10/2013	Software Engineering	Professor	20/03/1997	01/07/2010	Y	Regular	NIL	NIL
2.	Dr.G.Nantha Kumar	AEYPN4532L	Ph.D.	26/10/2013	CSE	Professor	12/07/1999	08/01/2010	Y	Regular	NIL	NIL
3.	Mr.R.Arunachalam	AIUPA5388H	M.E.	28/11/2008	Software Engineering	Assistant Professor	25/06/2001		Y	Regular	NIL	NIL
4.	Dr.S.Jagadeesan	ANRPJ0362Q	M.E.	04/07/2019	CSE	Assistant Professor	02/12/2013		N	Regular	NIL	22/1/ 2019
5.	Dr.J.Ganesh	ARXPG8254A	M.E.	15/03/2022	CSE	Assistant Professor	15/11/2021		Y	Regular	NIL	NIL
6.	Mr.P.Manikanda Prabu	BBUPM5106R	M.E.	29/06/2012	CSE	Assistant Professor	31/12/2007		Y	Regular	NIL	NIL
7.	Mr.R.Roger Samson	ATEPR7654J	M.E.	29/05/2009	CSE	Assistant Professor	10/12/2010		N	Regular	NIL	31/05/ 2021
8.	Mrs.K.Karthika	DMDPK6703A	M.E.	27/05/2011	CSE	Assistant Professor	30/06/2011		Y	Regular	NIL	NIL
9.	Mr.K.Pazhanivel	AYLPP6218J	M.E.	31/05/2012	CSE	Assistant Professor	04/06/2012		Y	Regular	NIL	NIL
10.	Mr.P.Dinesh	BOYPD4707C	M.E.	29/06/2012	CSE	Assistant Professor	17/12/2012		Y	Regular	NIL	NIL
11.	Mrs.P.Immaculate Rexi Jenifer	AEPPI5911P	M.E.	30/06/2014	CSE	Assistant Professor	18/01/2013		Y	Regular	NIL	NIL
12.	Mrs.G.Kalaiselvi	FBPPK5638R	M.E.	31/05/2012	CSE	Assistant Professor	19/06/2013		Y	Regular	NIL	NIL
13.	Mrs.S.Farjana Farvin	ACRPF6425H	M.E.	30/06/2014	CSE	Assistant Professor	02/01/2015		Y	Regular	NIL	NIL
14.	Mrs.P.Elakkiya	ABVPE5167C	M.E.	28/06/2013	CSE	Assistant Professor	08/10/2018		Y	Regular	NIL	NIL
15.	Mr.A.Abul Hasan	AOVPA2928Q	M.E.	31/05/2010	CSE	Assistant Professor	04/06/2012		N	Regular	NIL	02/11/ 2019
16.	Mr.N.Poongavanam	COWPP4288M	M.E.	30/06/2011	CSE	Assistant Professor	02/07/2018		Y	Regular	NIL	NIL
17.	Dr.T.Vigneswari	AFQPV299A	Ph.D.	07/04/2017	CSE	Associate Professor	28/03/2022	28/03/2022	Y	Regular	NIL	NIL
18.	Dr.S.Kamala Thiagarajan	CJSPS6034D	Ph.D.	09/03/2021	Embedded Systems	Assistant Professor	27/06/2011		Y	Regular	NIL	NIL
19.	Mrs.S.Grace Mary	AOHPG7609H	M.Tech	30/11/2009	CSE	Assistant Professor	03/09/2022		Y	Regular	NIL	NIL
20.	Mrs.K.Nithiya	ANOPN5007D	M.E.	16/06/2016	CSE	Assistant Professor	14/12/2022		Y	Regular	NIL	NIL

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21.	Mr.G.Rajaraman	ADGPR2055M	M.Tech	31/05/2006	CSE	Assistant Professor	1/11/2023		Y	Regular	NIL	NIL
22.	Mrs.J B Pradeepa	AYDPP9021B	M.Tech	30/05/2016	CSE	Assistant Professor	2/1/2024		Y	Regular	NIL	NIL

5.1. Student-Faculty Ratio (SFR) (20)

UG

No. of UG Programs in the Department (n): 1

B.E										
Year of Study	CAY (2023-2024)		CAYm1 (2022-2023)		CAYm2 (2021-2022)		CAYm3 (2020-2021)		CAYm4 (2019-2020)	
	Sanction Intake	Actual Admitted Through Lateral Entry	Sanction Intake	Actual Admitted Through Lateral Entry	Sanction Intake	Actual Admitted Through Lateral Entry	Sanction Intake	Actual Admitted Through Lateral Entry	Sanction Intake	Actual Admitted Through Lateral Entry
2nd Year	90	5	90	3	90	6	90	2	90	0
3rd Year	90	3	90	6	90	2	90	0	90	1
4th Year	90	6	90	2	90	0	90	1	90	9
Sub-Total	**270**	**14**	**270**	**11**	**270**	**8**	**270**	**3**	**270**	**10**
Total	**284**		281		278		273		280	
Grand Total	**284**		**281**		**278**		**273**		**280**	

PG

No. of PG Programs in the Department (m): 0

SFR

No. of UG Programs in the Department (n): 1

No. of PG Programs in the Department (m): 0

Description	CAY (2023-2024)	CAYm1 (2022-2023)	CAYm2 (2021-2022)	CAYm3 (2020-2021)	CAYm4 (2019-2020)
Total No. of Students in the Department **(S)**	276	281	278	273	280
No. of Faculty in the Department **(F)**	15	15	13	13	13
Student Faculty Ratio **(SFR)**	18	18.73	21.38	21.00	21.54
Average SFR	**19.37**				

Table B.5.1 Student-Faculty Ratio (SFR)

5.1.1. Provide the information about the regular and contractual faculty as per the format mentioned below:

Year	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY (2023-2024)	15	NIL
CAYm1 (2022-2023)	15	NIL
CAYm2 (2021-2022)	13	NIL
CAYm3 (2020-2021)	13	NIL
CAYm4(2019-2020)	12	NIL

Table 5.1.1 Information about the regular and contractual faculty

5.2. Faculty Cadre Proportion (25)

Year	Professor		Associate Professor		Assistant Professor	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY (2022-2023)	1	2	3	1	9	12
CAYm1 (2022-2023)	1	2	3	1	9	12
CAY m2(2021-2022)	1	2	3	0	9	11
CAYm3(2020-2021)	1	2	3	0	9	11
CAYm4(2019-2020)	1	1	3	1	9	11
Average Numbers	RF1=1	AF1=2	RF2=3	AF2=0.66	RF=9	AF3=11.66

$$\text{Cadre Ratio Marks}=\left[\left[\frac{AF1}{RF1}+\frac{AF2}{RF2}\times 0.6+\frac{AF3}{RF3}\times 0.4\right]\right]\times 12.5$$

Cadre Ratio Marks = 25.00

5.3 Faculty Qualification (25)

FQ =2.5 x [(10X +4Y)/F)] where x is no. of regular faculty with Ph.D., Y is no. of regular faculty with M.Tech. F is no. of regular faculty required to comply 20:1 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

Years	X	Y	F	FQ=2.5 x [(10X +4Y)/F)]
CAY (2023-2024)	4	11	15	14.00
CAY (2022-2023)	4	11	15	14.00
CAY m1(2021-2022)	2	11	13	12.31
CAYm2(2020-2021)	2	11	13	12.31
CAYm3(2019-2020)	2	11	13	12.31
Average Assessment				**13.14**

Table B.5.3 Faculty Qualification

5.4 Faculty Retention (25)

Year	Number of regular faculty in the department	Number of regular faculty retained in the department
CAY (2023-2024)	15	11
CAYm1 (2022-2023)	15	11
CAY m2(2021-2022)	13	11
CAYm3(2020-2021)	13	12
CAYm4(2019-2020)	12	12

Item % of Faculty retained during the period of assessment keeping CAYm2 as base Year	Marks
>=90 % of required retained during the period of assessment keeping2021-2022as base year	25
>=75% of required retained during the period of assessment keeping 2021-2022 as base year	20
73.33>=60% of required retained during the period of assessment keeping 2021-2022 as base year	15
>=50% of required retained during the period of assessment keeping 2021-2022 as base year	10
<50 % of required retained during the period of assessment keeping 2021-2022 as base year	0

Table 5.4 Faculty Retention

5.5 Innovations by the Faculty in Teaching and Learning (20)

Following are the innovative methods used by the faculty in teaching learning process,

Sl.No	Tools & Methods
1.	**Complete study material** for all the courses as per the syllabus of AnnaUniversity is prepared by the faculty and distributed to the students. This course material includes important university questions, two marks with answers and problems with clear solutions that serves as a better tool for university exam preparation.
2.	**Google Classroom** - A learning management system (LMS) that aims to simplify creating, distributing, grading assignments and engaging students in learning online or remotely. Google classroom is created for all the subjects, students join in the classroom and student access the course content instantaneously once the teacher upload the content. Course plan, e-book, Course materials, Assignments, Internal assessment Test question papers, lab plan and lab manual are shared to the students in the class room. https://classroom.google.com/u/2/c/Mzc4MDE5NTM1MDAz
3.	**Power Point Presentation** – Effective power point presentations are prepared for all the courses and used for teaching along with traditional chalk and talk method. This helps the students to understand concepts more clearly through visual aid.

4.	**Demonstration Videos and Lectures –** Demonstration videos from NPTEL lectures for various topics are used in the teaching learning process for the clarity of concepts for both faculty and students in addition to the regular classroom teaching.
5.	**Laboratory Courses –** Lab manual is prepared by the faculty for respective laboratory courses which includes the description about the experiment, algorithm and sample viva voce questions. This gives the students a clear understanding about the experiments before they come to the lab. Additional experiments are included in each laboratory course that supports the advanced learners to learn more content beyond the syllabus.

Table B.5.5.1 Tools and Methods

Sl.No	Name of the Faculty	Methods Implemented
1.	**Dr. K. Velmurugan**	• YouTube Lectures https://www.youtube.com/channel/UCULObpWZVpj_pgONxWQew0A https://www.youtube.com/watch?v=f0qjeikTz1I https://www.youtube.com/watch?v=ukQ3G4n8w1o • Active Learning (Model Based Approach)
2.	**Dr.G.Nanthakumar**	• Active learning -Quiz
3.	**Mrs. S. Farjana Farvin**	• YouTube Lectures https://www.youtube.com/channel/UC_GMpAJqvBq2C8clgAKrvTQ • Active Learning-Role • Play Quiz using Kahoot • Crossword Puzzle using Jcross
4.	**Mrs. G. Kalaiselvi**	• YouTube Lectures • https://youtube.com/channel/UCkorhTTwxmu5Gyeuv87PxZw • Kahoot Quiz • Active Learning –Discussion Activity, Crossword puzzles, Think Pair Share
5.	**Mrs.K.Karthika**	• Think Pair Share
6.	**Mrs .P Immaculate Rexi Jenifer**	• Active Learning –Learning by Teaching

Table B.5.5.2Innovations by the Faculty in Teaching and Learning

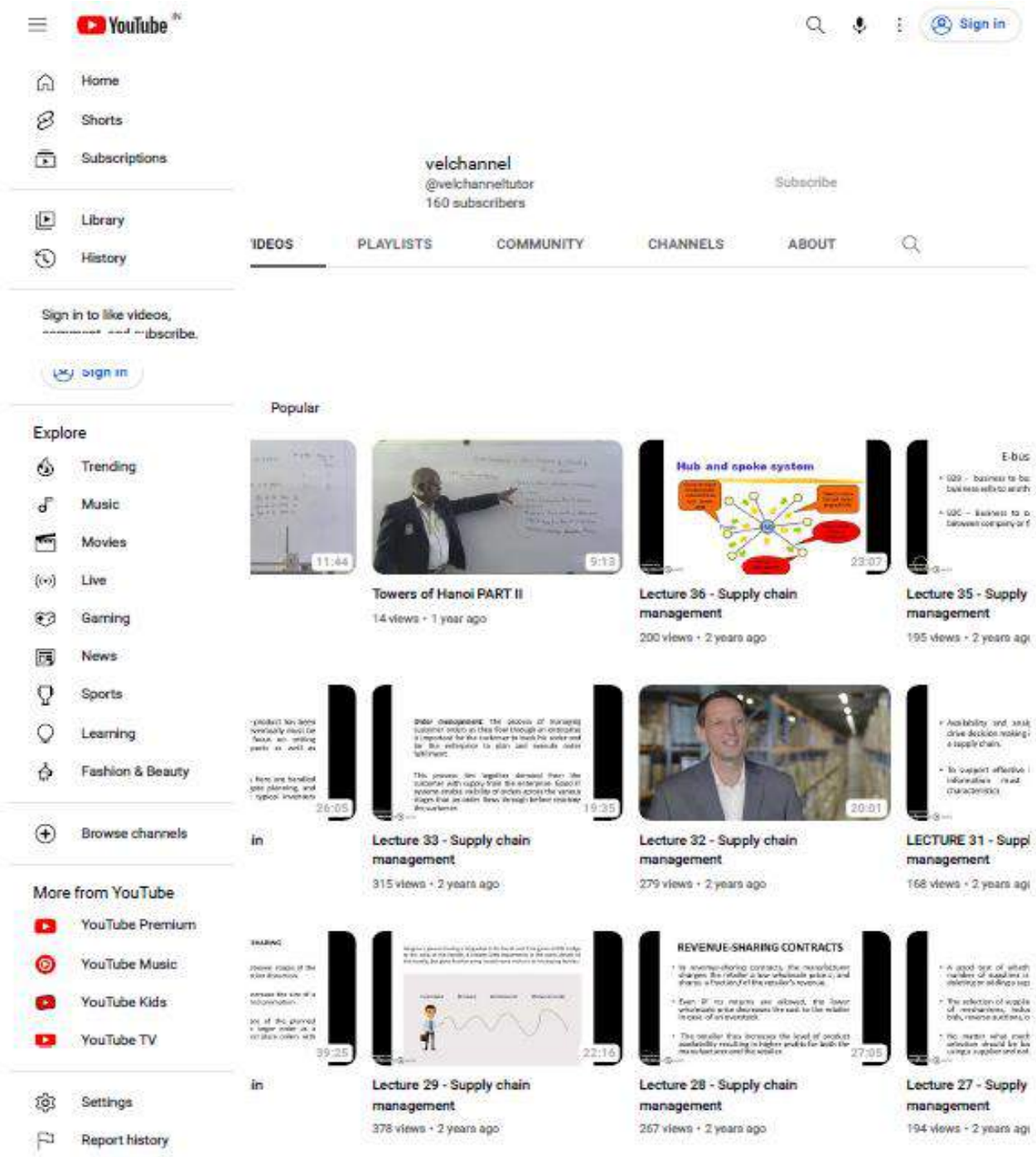
YouTube Lecture Videos of our Faculty Members

YouTube lecture by Dr. K. Velmurugan:

Lecture Link:

https://www.youtube.com/channel/UCULObpWZVpj_pgONxWQew0A

https://youtube.com/@velchanneltutor



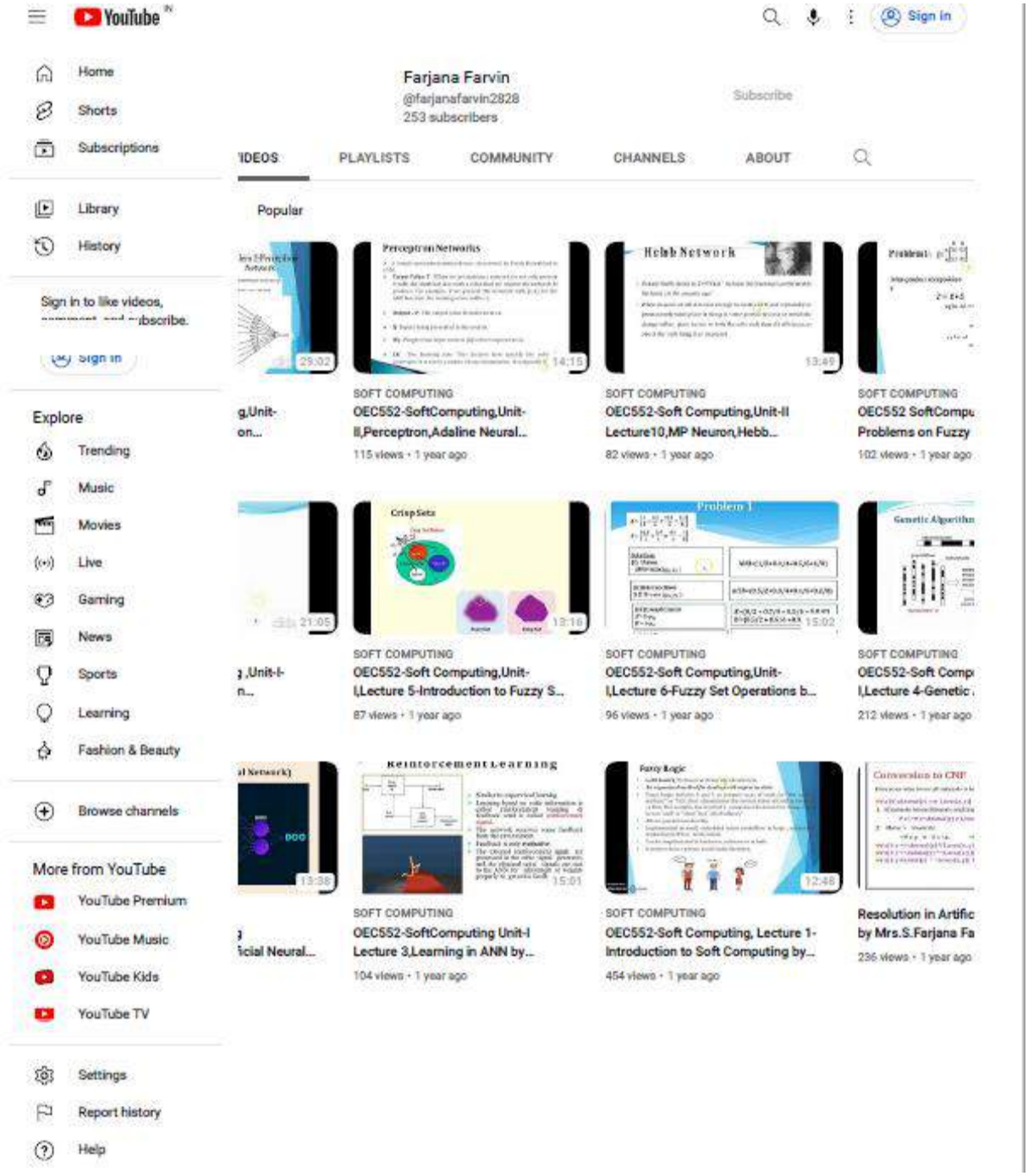
Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

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YouTube lecture by Mrs. S. Farjana Farvin:

Lecture Link:

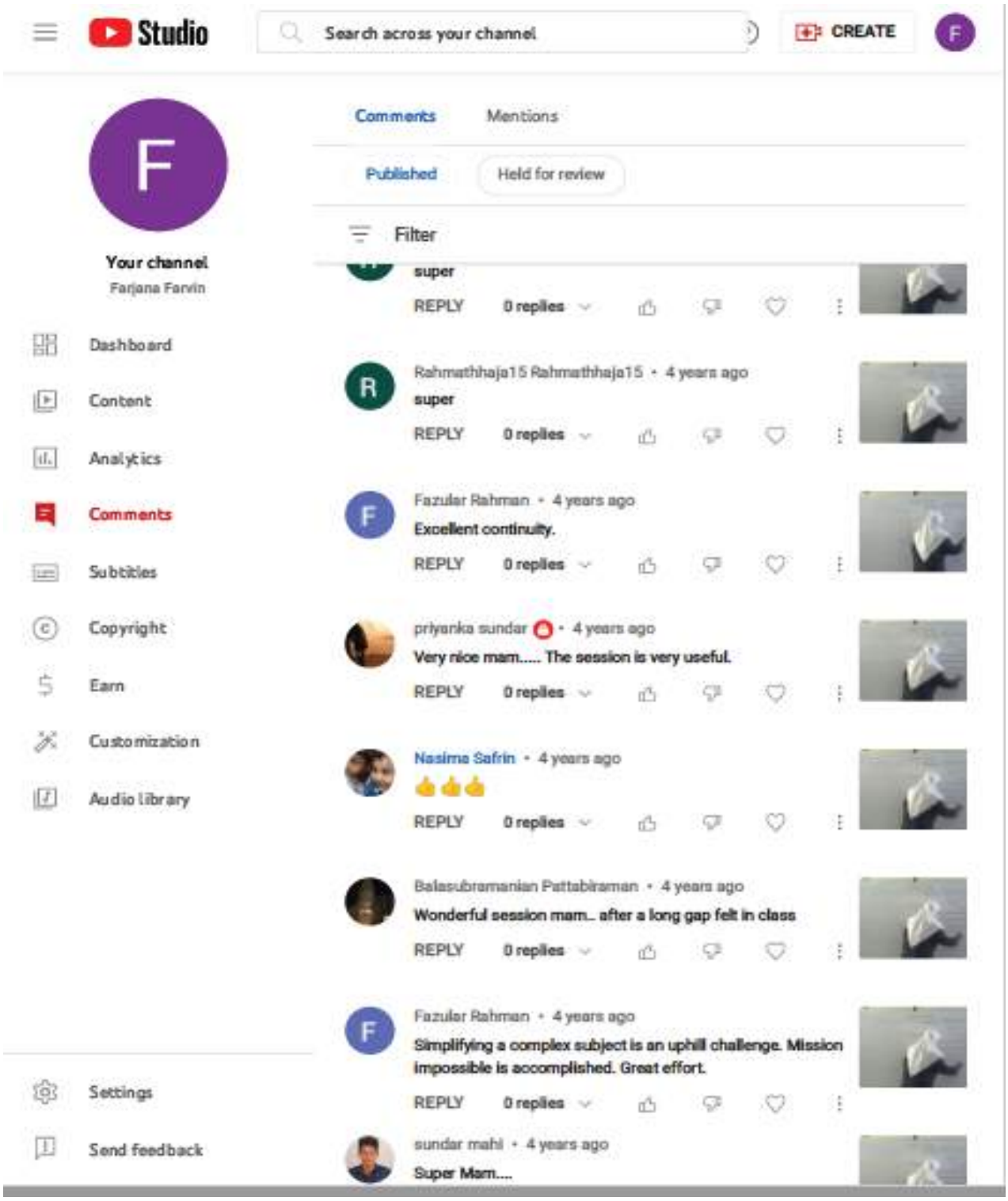
https://www.youtube.com/channel/UC_GMpAJqvBq2C8clgAKrvTQ



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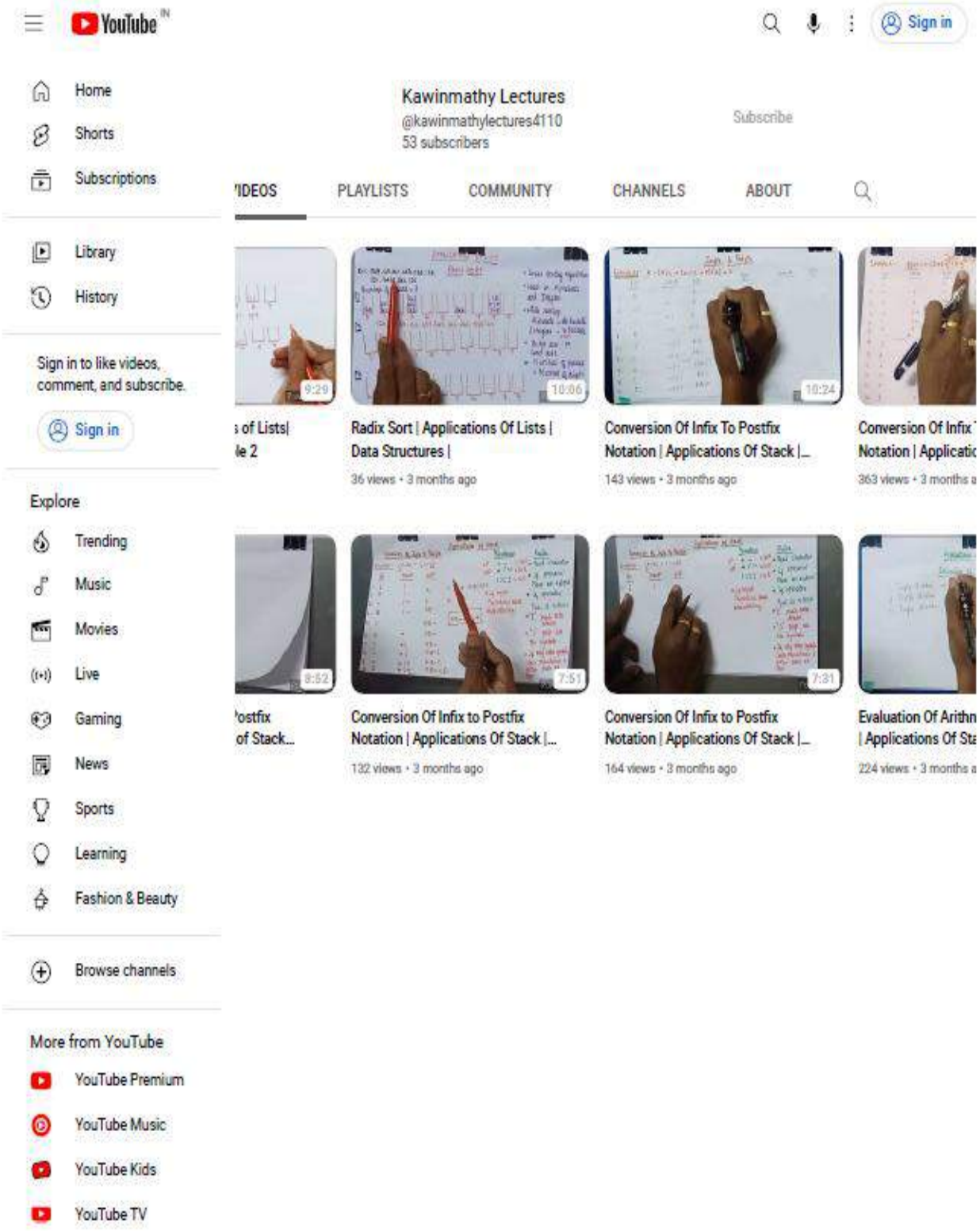
Comments on YouTube lectures by Mrs. S. Farjana Farvin:



YouTube lecture by Mrs. G. Kalaiselvi

Lecture Link:

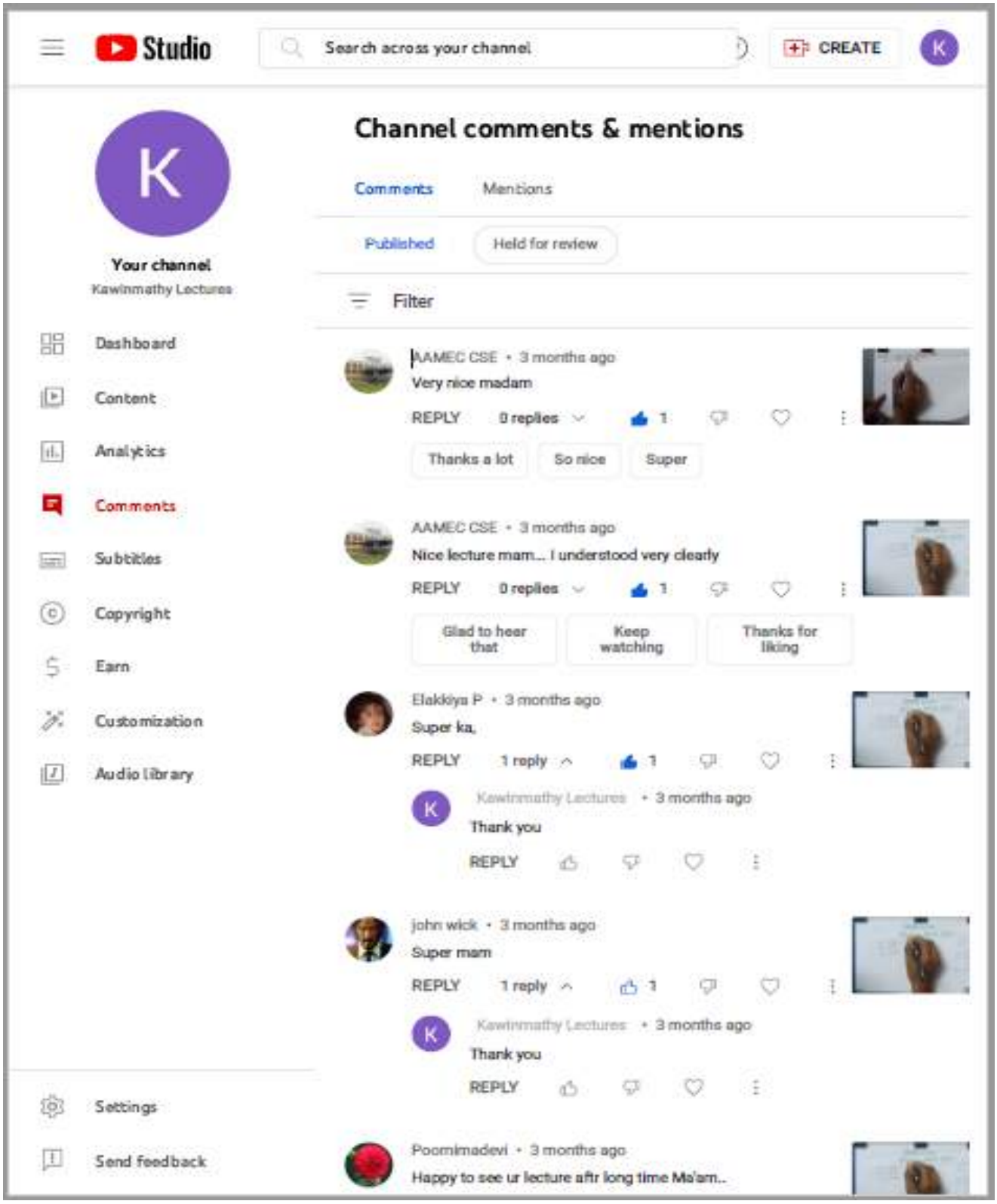
https://youtube.com/channel/UCkorhTTwxmu5Gyeuv87PxZw



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Comments on YouTube lectures by Mrs.G.Kalaiselvi



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Active Learning Report Academic Year 2023-2024

Active Learning-MCQ

Subject: CS8080 – Information Retrieval Techniques **Topic:** Classification & Clustering

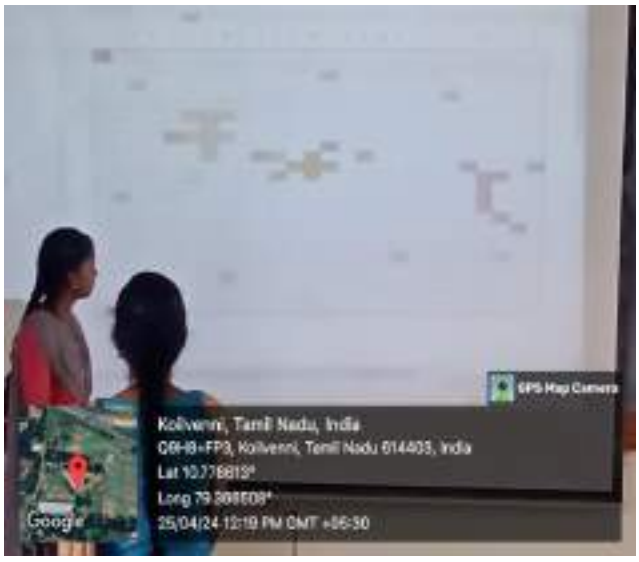
Date: 25.04.24 **Batch:** 2020-2024

Year: IV CSE **Staff Name:** Mr.R.Aruachalam

The activity titled "Classification and Clustering" was conducted with the aim of exploring the application of Naive Bayes Classifier and K-Means Clustering techniques. This activity served as a collaborative effort involving a team of three members and a total of 32 enthusiastic participants.

The primary objective of the activity was twofold:

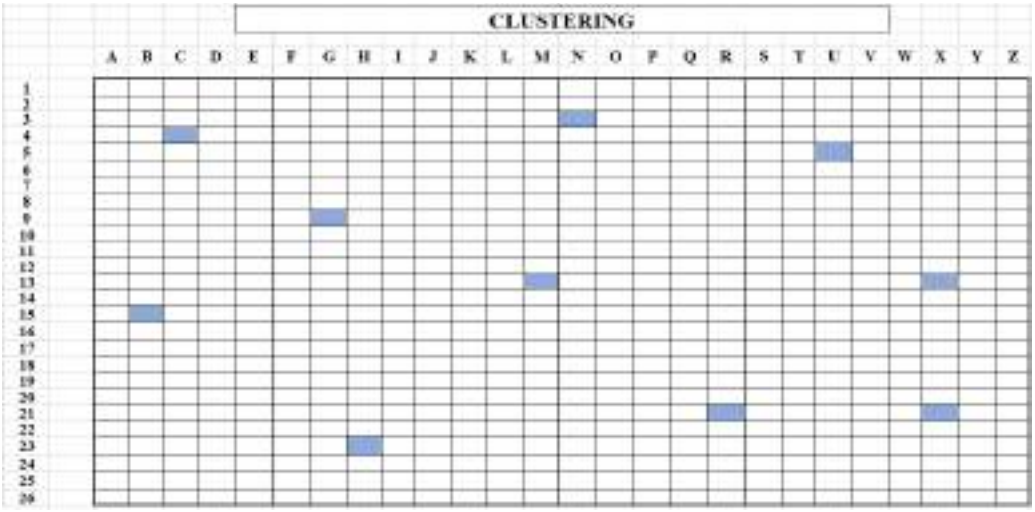
1. To familiarize participants with the Naive Bayes Classifier technique through article classification based on keywords extracted from article previews.
2. To introduce participants to the concept of K-Means Clustering through a hands-on exercise aimed at forming clusters based on proximity to data points.

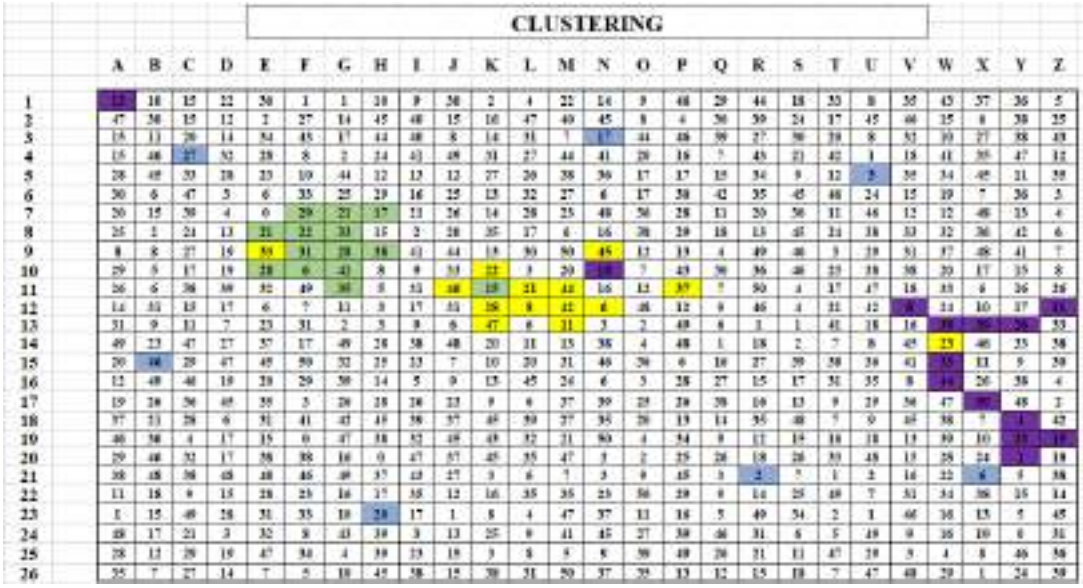












The activity provided practical insights into Naive Bayes Classifier and K-Means Clustering techniques. Participants gained hands-on experience in document retrieval scenarios, enhancing their understanding of these machine learning concepts.

Active Learning-MCQ

Subject: IT8073- Information Security
Topic: UNIT V
Date: 29.04.24
Batch: 2020-2024
Year: IV CSE
Staff Name: Dr.G.Nanthakumar

In the pursuit of enriching the learning experience in Information Security, an activity centered on interactive game-based learning was undertaken. The essence of this activity was to immerse learners in a dynamic learning environment that fosters engagement and comprehension. This report encapsulates the objectives, methodology, outcomes, and reflections on the efficacy of the activity.

The primary aim of the activity was to reinforce core concepts and principles within Information Security through an engaging medium. This involved assessing participants' understanding, fostering active participation, and providing immediate feedback. A curated set of questions spanning various Information Security topics was prepared to accomplish these objectives. These questions were meticulously designed to be informative and challenging, aligning closely with the learning goals. The activity steered clear of utilizing specific platforms, focusing instead on leveraging interactive and collaborative methods to enhance the learning experience.





The activity yielded commendable outcomes, including high levels of participant engagement and effective knowledge assessment. Participants displayed enthusiasm and active involvement throughout, indicative of the activity's success in stimulating interest. The immediate feedback mechanism provided valuable insights, guiding participants towards a deeper understanding of the subject matter. Moreover, the collaborative nature of the activity fostered interaction and discussion among participants, enriching the learning process. However, certain areas for improvement were identified, such as the need for a balanced approach to question complexity and enhanced consideration for time management. Moving forward, a continuous refinement of the activity's design and implementation will be pursued to ensure an optimal learning experience for all participants.





In conclusion, the activity-based learning approach employed in Information Security demonstrated promising outcomes in engaging learners and reinforcing key concepts. While specific platforms were not utilized, the focus remained on creating an interactive and collaborative learning environment. This report underscores the efficacy of activity-based learning methodologies in enhancing comprehension and fostering engagement. Moving forward, efforts will continue towards refining these approaches to maximize learning outcomes and promote a deeper understanding of Information Security principles.

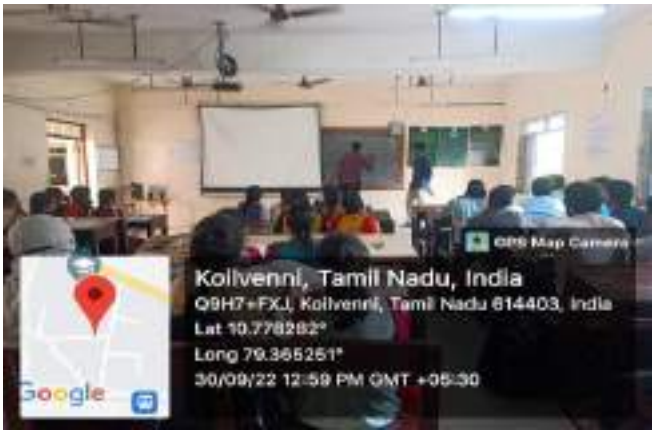
Active Learning Report Academic Year 2022-2023

Active Learning- Think Pair Share

Think-Pair-Share (TPS) is a cooperative learning activity that can work in varied size classrooms and in any subject. A question is posed by instructor; students first THINK to themselves prior to being instructed to discuss their response with a person sitting near them (PAIR). Finally, the groups SHARE out what they discussed with their partner to the entire class and discussion continues.

Students get time to think critically, creating a learning environment that encourages high quality responses. TPS provides an opportunity for students to work in groups toward a common goal, increasing their own and others understanding in a safe environment to make mistakes.

Subject: CS3301-Datastructures
Topic: UNIT-I LISTS
Date: 24.09.22&30.09.22
Batch: 2021-2025
Year: II CSE A
Staff Name: Mrs.G.Kalaiselvi

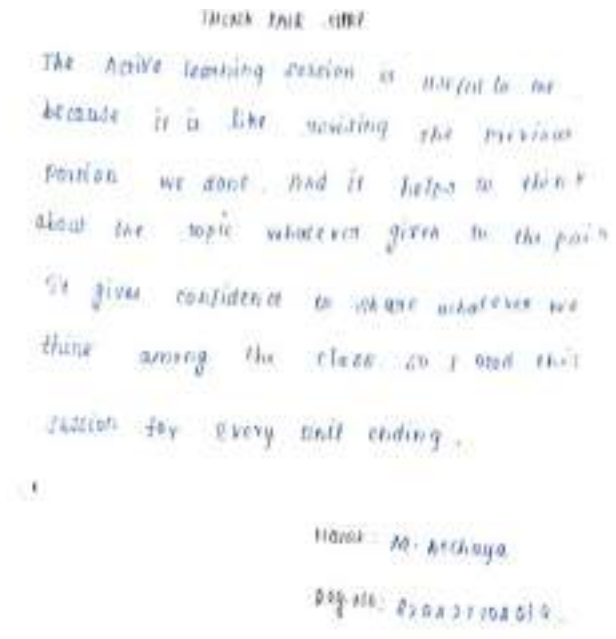








Feedback on Think Pair Share Activity



THINK PAIR SHARE

The Active learning session is useful to me because it is like revising the previous portion we done. And it helps to think about the topic whatever given to the pair. It gives confidence to share whatever we think among the class. So I need this session for every unit ending.

Name: M. Archaya

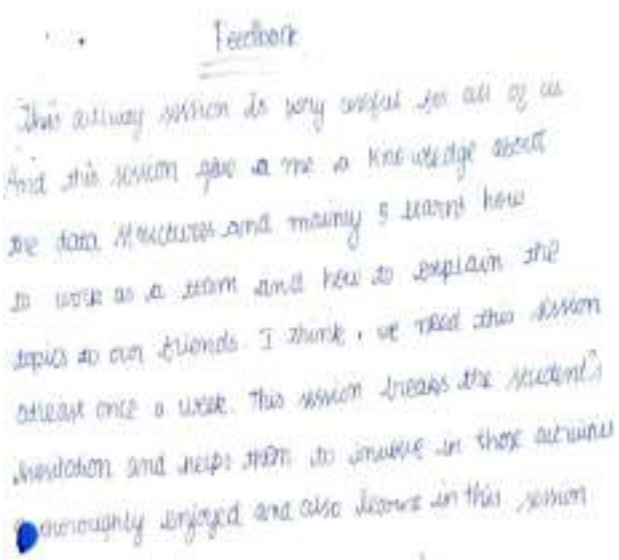


Benefits:

- To recall the topics what we learnt
- We can change the mistake that we done
- It helps me to know what the other Students understand and how we deliver it like that I get some ideas

Name: P. Hasini

Roll No: 22951A04029

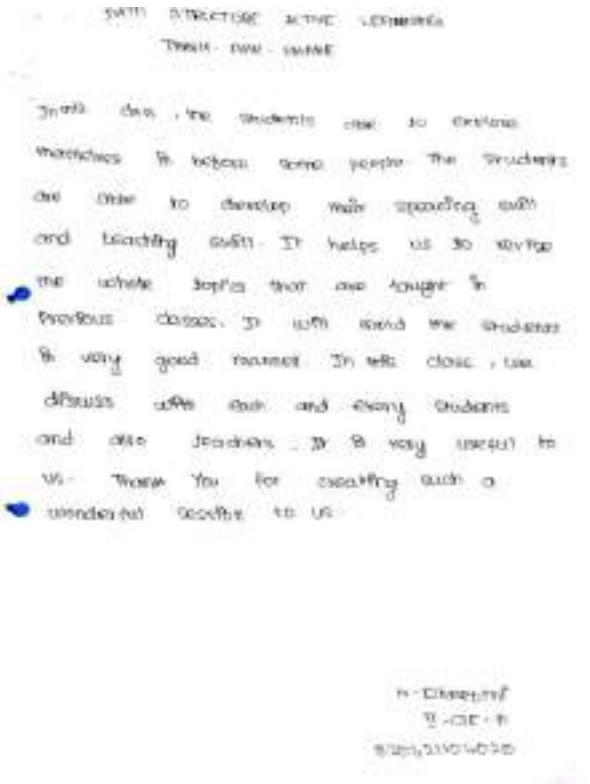


Feedback

This activity session is very useful for all of us. And this session gave me a knowledge about the team structure and mainly I learnt how to work as a team and how to explain the topics to our friends. I think, we need this session atleast once a week. This session breaks the monotony and helps them to involve in their activities thoroughly enjoyed and also learnt in this session

by

P Bhavya



Name: P. Chaitanya

Roll No: 22951A04019

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

Active Learning- Think Pair Share

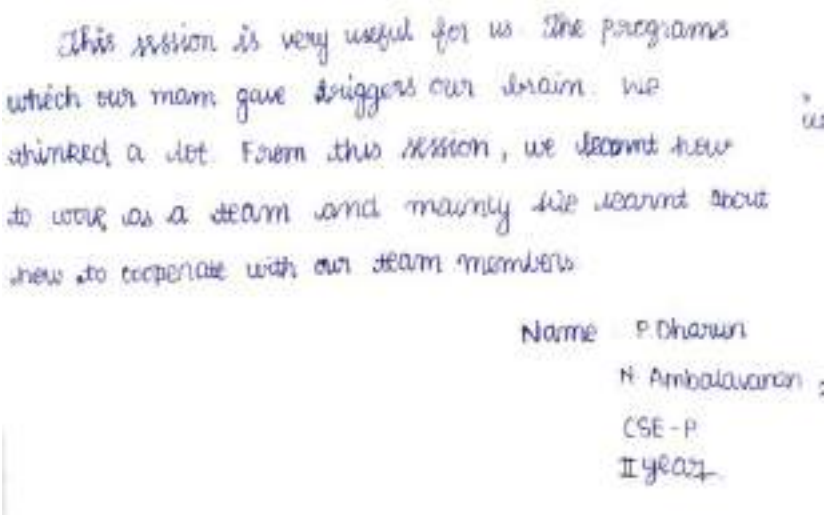
Think. Students think independently about the question that has been posed. Give students enough time to form an idea or answer**. Pair**. Students are grouped in pairs to discuss their thoughts. **Share.** Student pairs will share their ideas with a larger group.

Subject: CS3391- Object Oriented Programming
Topic: UNIT-I LISTS
Date: 29.08.2022
Batch: 2021-2025
Year: II CSE A
Staff Name: Mrs.S.FarjanaFarvin

Question Set

1. Write a Java program to create a student examination system that prints the mark sheet of students, Input student name, marks in 6 subjects. This mark should be between 0 and 100.
   If the average of marks is >= 80 then prints Grade 'A'
   If the average of marks is <80 and >=60 then prints Grade 'B'
   If the average is <60 and >=40 then prints Grade 'C'
   Else prints Grade'D'.
2. Write a Java program to calculate electricity bill using inheritance. The program should get the inputs of watts per hour and unit rate. Check your program for the following case: Assume a consumer consumes 5000 watts per hour daily for one month. Calculate the total energy bill of that consumer if per unit rate is 7 [1 unit = 1k W].
3. Write an address book class that manages a collection of person object. An address book will allow a person to add, delete, or search for a person object in the address book.
   Add method: It should add a person object to the address book.
   Delete method: It should remove the specified person object from the book.
   Search method: It searches the address book for a specified person and returns the list of persons matching the specified criteria. The search can be done either by first name, last name or person id.
4. Develop a java program to find a smallest number in the given array by creating one dimensional array and two dimensional arrays using new operator.

Feedback on Think Pair Share Activity


This session is very useful for us. The programs which our mam gave triggers our brain. We thinked a lot. From this session, we learnt how to work as a team and mainly we learnt about how to cooperate with our team members.

Name P.Dharun
N.Ambalavanan
CSE-P
II year

Active Learning- Problem Based Learning

Subject: CS3352-Foundations of Data Science
Topic: UNIT II &III
Date: 29.08.2022
Batch: 2021-2025
Year: II CSE A
Staff Name: Dr.K.Velmurugan

Question Set:

1.Data Describing Program
2.Frequency Table Program
3.Correlation finding program

Data Describing Program

```
import math
from prettytable import PrettyTable
data =[]
n=int(input(&amp;quot;Enter the No of data  : &amp;quot;))
a=0
for i in range(0,n):
    print(&amp;quot;Enter the data &amp;quot;,(i+1),&amp;quot; :&amp;quot;)
    a=int(input())
    data.append(a)
data.sort()
#mean
mean=sum(data)/n
c=0
ct=[]
du=0
#mode
for i in range(0,n):
    if(du==data[i]):
        c=0
```

```
        ct.append(c)
        continue
    for j in range(0,n):
        if(data[i]==data[j]):
            c+=1
    if(c==1):
        c=0
        du=0
    elif(c&gt;1):
        du=data[i]
    else:
        pass
    ct.append(c)
    c=0
m1=max(ct)
no_mx=ct.count(m1)
uni_mo=0
if(no_mx==1):
    for i in range(0,n):
        if(m1==ct[i]):
            uni_mo=data[i]
mu_mo=[]

if(no_mx&gt;=2):
    for i in range(0,n):
        if(m1==ct[i]):
            mu_mo.append(data[i])
mu_mo1=set(mu_mo)
mu_mo2=list(mu_mo)
#median
median=0
if((len(data)%2)==0):
    median=float((data[(int(len(data)/2))-
1]+data[((int(len(data)/2)))])/2)
elif(len(data)%2==1):
    median=data[(int(len(data)/2))]
else:
    pass
#range
min_val=data[0]
```

```
max_val=data[n-1]
rang_val=int((max_val))-int((min_val))
#variance
s=0
for i in range(0,n):
   s=s+((data[i]-mean)**2)
variance=float(s/n)
#STANDARDDEVIATION
SD =math.sqrt((s/(n-1)))
myt=PrettyTable([&quot;MEAN&quot;,&quot;MEDIAN&quot;,&quot;VARIANCE&quot;,&quot;RA
        NGE&quot;,&quot;STANDARD DEVIATION&quot;])
myt.add_row([mean,median,variance,rang_val,SD])
print(myt)
if(no_mx==1):
   print(&quot;THE MODE VALUE IS: &quot;,uni_mo)
elif((no_mx&gt;1)and(len(mu_mo2)!=n)):
   for i in range(0,len(mu_mo2)):
      print(&quot;MODE &quot;,(i+1),&quot;:&quot;,mu_mo2[i])
else:
   print(&quot;No Mode&quot;)
```

OUTPUT:

```
Enter the No of data : 5
Enter the data 1 : 49
Enter the data 2 : 36
Enter the data 3 : 44
Enter the data 4 : 50
Enter the data 5 : 60
+------+--------+------------------+-------+--------------------+
| MEAN | MEDIAN | VARIANCE | RANGE | STANDARD DEVIATION |
+------+--------+------------------+-------+--------------------+
| 47.8 | 49 | 61.75999999999999 | 24 | 8.786353054595518 |
+------+--------+------------------+-------+--------------------+
No Mode
```

Frequency Table Program

```
import matplotlib.pyplot as plt
from prettytable import PrettyTable
data =[]
n=int(input(&quot;Enter the no  of data: &quot;))
for i in range(0,n):
   print(&quot;Enter a data of &quot;,(i+1))
```

```
    k=int(input())
    data.append(k)
#sort the data
data.sort()
min_val=data[0]
max_val=data[n-1]
rang_val=int((max_val))-int((min_val))
ci=int((rang_val)/10)
c_i1=ci
if(ci&lt;=5):
    ci=5
else:
    ci=10
r=[]
d=data[0]
c=0
min_rem=0
l_c_mi_r=0
if(data[0]==0):
    min_rem=0
else:
    min_rem=(d%10)
if(min_rem&lt;=ci):
    l_c_mi_r=data[0]-min_rem
elif(min_rem&gt;ci):
    min_rem=min_rem-ci
    l_c_mi_r=data[0]-min_rem
else:
    pass
mx_rem=0
if(data[n-1]==0):
    mx_rem=0
else:
    mx_rem=(d%10)

if(mx_rem&lt;=ci):
    max_val_low=data[n-1]-mx_rem
elif(mx_rem&gt;ci):
    mx_rem=mx_rem-ci
    max_val_low=data[n-1]-mx_rem
```

```
else:
    pass
low_range=[]
high_range=[]
l_c_mx_r=l_c_mi_r+(ci-1)
max_val_high=max_val_low+ci
last_rng_setv=max_val_high+ci
b=l_c_mx_r+ci
for i in range((l_c_mx_r),last_rng_setv,ci):
    k=0
    low_range.append(k)
    high_range.append(k)
low_range[0]=l_c_mi_r
high_range[0]=l_c_mx_r
g=1
for i in range((l_c_mx_r+ci),last_rng_setv,ci):
    low_range[g]=low_range[g-1]+ci
    high_range[g]=high_range[g-1]+ci
    g+=1
i=0
f=[]
k=0
for i in range((l_c_mx_r),last_rng_setv,ci):
    k=0
    f.append(k)
count=0
for i in range(0,len(low_range)):
    for j in range(0,len(data)):
        if(data[j])&gt;=low_range[i]:
            if(data[j]&lt;=high_range[i]):
                count=count+1
    if(count==0):
        f[i]=0
    else:
        f[i]=count
    count=0
#relativefrequency
rf=[]
tot_f=sum(f)
for i in range(0,len(low_range)):
```

```
    o=round((f[i])/(tot_f),2)
    rf.append(o)
#cumulativefrequency

cf=[]
cf.append(f[0])
for i in range(1,len(low_range)):
    o=f[i]+cf[i-1]
    cf.append(o)
#commulativepercentile
cf_p=[]
for i in range(0,len(low_range)):
    o=round(((cf[i]*100)/sum(f)))
    cf_p.append(o)
#reallimits
real_mi=[]
real_mx=[]
for i in range((l_c_mx_r),last_rng_setv,ci):
    k=0
    real_mi.append(k)
    real_mx.append(k)
l=0
h=0
i=0
for j in range((l_c_mx_r),last_rng_setv,ci):
    real_mi[h]=low_range[h]-0.5
    real_mx[h]=high_range[h]-0.5
    h+=1
myt=PrettyTable([&quot;DataRange&quot;,&quot;Frequency Value&quot;,&quot;Reall
Limits&quot;,&quot;RelativeFrequency&quot;,&quot;CummulativeFrqeuncy&quot;,&quot;Cummulativ
ePercetinl
e &quot;])
for t in range(0,len(low_range)):
    myt.add_row([(str(low_range[t])+&quot;-
&quot;+str(high_range[t])),f[t],(str(real_mi[t])+&quot;-
&quot;+str(real_mx[t])),rf[t],cf[t],cf_p[t]])
print(myt)
x=[]
for i in range(0,len(f)):
    x.append((str(low_range[i])+&quot;-&quot;+str(high_range[i])))
```

```
print(&amp;quot;&amp;quot;)
print(&amp;quot;THE RANGE VALUE IS :&amp;quot;,rang_val)
print(&amp;quot;THE CLASS INTERVAL IS: &amp;quot;,int(ci))
print(&amp;quot;The Relative Frequency is :  &amp;quot;,round(sum(rf),1))
plt.bar(x,f)
plt.show()import matplotlib.pyplot as plt
from prettytable import PrettyTable
data =[]
n=int(input(&amp;quot;Enter the no  of data: &amp;quot;))
for i in range(0,n):
    print(&amp;quot;Enter a data of &amp;quot;,(i+1))
    k=int(input())
data.append(k)
#sort the data
data.sort()
min_val=data[0]
max_val=data[n-1]
rang_val=int((max_val))-int((min_val))
ci=int((rang_val)/10)
c_i1=ci
if(ci&amp;lt;=5):
    ci=5
else:
    ci=10
r=[]
d=data[0]
c=0
min_rem=0
l_c_mi_r=0
if(data[0]==0):
    min_rem=0
else:
    min_rem=(d%10)
if(min_rem&amp;lt;=ci):
    l_c_mi_r=data[0]-min_rem
elif(min_rem&amp;gt;ci):
    min_rem=min_rem-ci
    l_c_mi_r=data[0]-min_rem
else:
    pass
```

```
mx_rem=0
if(data[n-1]==0):
    mx_rem=0
else:
    mx_rem=(d%10)

if(mx_rem&lt;=ci):
    max_val_low=data[n-1]-mx_rem
elif(mx_rem&gt;ci):
    mx_rem=mx_rem-ci
    max_val_low=data[n-1]-mx_rem
else:
    pass
low_range=[]
high_range=[]
l_c_mx_r=l_c_mi_r+(ci-1)
max_val_high=max_val_low+ci
last_rng_setv=max_val_high+ci
b=l_c_mx_r+ci
for i in range((l_c_mx_r),last_rng_setv,ci):
    k=0
    low_range.append(k)
    high_range.append(k)
low_range[0]=l_c_mi_r
high_range[0]=l_c_mx_r
g=1
for i in range((l_c_mx_r+ci),last_rng_setv,ci):
    low_range[g]=low_range[g-1]+ci
    high_range[g]=high_range[g-1]+ci
    g+=1
i=0
f=[]
k=0
for i in range((l_c_mx_r),last_rng_setv,ci):
    k=0
    f.append(k)
count=0
for i in range(0,len(low_range)):
    for j in range(0,len(data)):
        if(data[j])&gt;=low_range[i]:
```

```
            if(data[j]&lt;=high_range[i]):
                count=count+1
    if(count==0):
        f[i]=0
    else:
        f[i]=count
    count=0
#relativefrequency
rf=[]
tot_f=sum(f)
for i in range(0,len(low_range)):
    o=round((f[i])/(tot_f),2)
    rf.append(o)
#cumulativefrequency

cf=[]
cf.append(f[0])
for i in range(1,len(low_range)):
    o=f[i]+cf[i-1]
    cf.append(o)
#commulativepercentile
cf_p=[]
for i in range(0,len(low_range)):
    o=round(((cf[i]*100)/sum(f)))
    cf_p.append(o)
#reallimits
real_mi=[]
real_mx=[]
for i in range((l_c_mx_r),last_rng_setv,ci):
    k=0
    real_mi.append(k)
    real_mx.append(k)
l=0
h=0
i=0
for j in range((l_c_mx_r),last_rng_setv,ci):
    real_mi[h]=low_range[h]-0.5
    real_mx[h]=high_range[h]-0.5
    h+=1
myt=PrettyTable([&quot;DataRange&quot;,&quot;Frequency Value&quot;,&quot;Reall
```

```
Limits&quot;,&quot;RelativeFrequency&quot;,&quot;CummulativeFrqeuncy&quot;,&quot;CummulativePercetinl
e &quot;])
for t in range(0,len(low_range)):
    myt.add_row([(str(low_range[t])+&quot;-&quot;+str(high_range[t])),f[t],(str(real_mi[t])+&quot;-&quot;+str(real_mx[t])),rf[t],cf[t],cf_p[t]])
print(myt)
x=[]
for i in range(0,len(f)):
    x.append((str(low_range[i])+&quot;-&quot;+str(high_range[i])))
print(&quot;&quot;)
print(&quot;THE RANGE VALUE IS :&quot;,rang_val)
print(&quot;THE CLASS INTERVAL IS: &quot;,int(ci))
print(&quot;The Relative Frequency is :  &quot;,round(sum(rf),1))
plt.bar(x,f)
plt.show()import matplotlib.pyplot as plt
from prettytable import PrettyTable
data =[]
n=int(input(&quot;Enter the no  of data: &quot;))
for i in range(0,n):
    print(&quot;Enter a data of &quot;,(i+1))
    k=int(input())
    data.append(k)
#sort the data
data.sort()
min_val=data[0]
max_val=data[n-1]
rang_val=int((max_val))-int((min_val))
ci=int((rang_val)/10)
c_i1=ci
if(ci&lt;=5):
    ci=5
else:
    ci=10
r=[]
d=data[0]
c=0
min_rem=0
l_c_mi_r=0
```

```
if(data[0]==0):
    min_rem=0
else:
    min_rem=(d%10)
if(min_rem&lt;=ci):
    l_c_mi_r=data[0]-min_rem
elif(min_rem&gt;ci):
    min_rem=min_rem-ci
    l_c_mi_r=data[0]-min_rem
else:
    pass
mx_rem=0
if(data[n-1]==0):
    mx_rem=0
else:
    mx_rem=(d%10)

if(mx_rem&lt;=ci):
    max_val_low=data[n-1]-mx_rem
elif(mx_rem&gt;ci):
    mx_rem=mx_rem-ci
    max_val_low=data[n-1]-mx_rem
else:
    pass
low_range=[]
high_range=[]
l_c_mx_r=l_c_mi_r+(ci-1)
max_val_high=max_val_low+ci
last_rng_setv=max_val_high+ci
b=l_c_mx_r+ci
for i in range((l_c_mx_r),last_rng_setv,ci):
    k=0
    low_range.append(k)
    high_range.append(k)
low_range[0]=l_c_mi_r
high_range[0]=l_c_mx_r
g=1
for i in range((l_c_mx_r+ci),last_rng_setv,ci):
    low_range[g]=low_range[g-1]+ci
    high_range[g]=high_range[g-1]+ci
```

```
    g+=1
i=0
f=[]
k=0
for i in range((l_c_mx_r),last_rng_setv,ci):
    k=0
    f.append(k)
count=0
for i in range(0,len(low_range)):
    for j in range(0,len(data)):
        if(data[j])&gt;=low_range[i]:
            if(data[j]&lt;=high_range[i]):
                count=count+1
    if(count==0):
        f[i]=0
    else:
        f[i]=count
    count=0
#relativefrequency
rf=[]
tot_f=sum(f)
for i in range(0,len(low_range)):
    o=round((f[i])/(tot_f),2)
    rf.append(o)
#cumulativefrequency

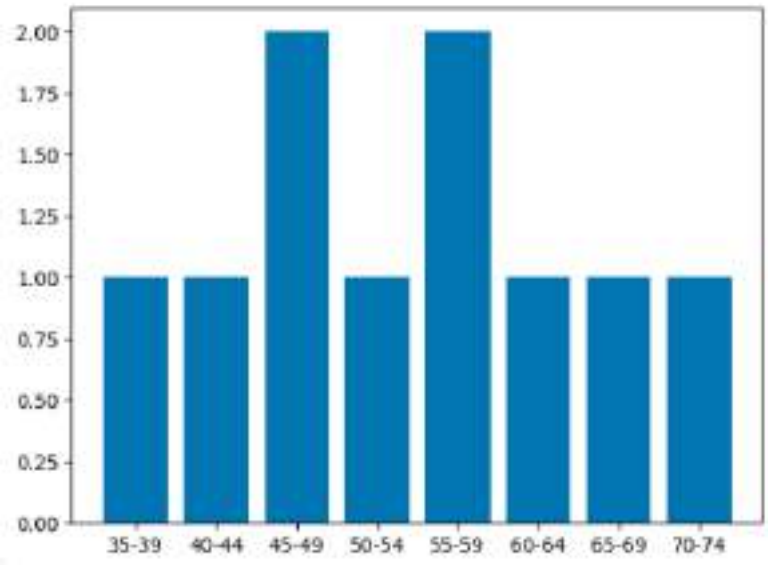
cf=[]
cf.append(f[0])
for i in range(1,len(low_range)):
    o=f[i]+cf[i-1]
    cf.append(o)
#commulativepercentile
cf_p=[]
for i in range(0,len(low_range)):
    o=round(((cf[i]*100)/sum(f)))
    cf_p.append(o)
#reallimits
real_mi=[]
real_mx=[]
for i in range((l_c_mx_r),last_rng_setv,ci):
```

```
    k=0
    real_mi.append(k)
    real_mx.append(k)
l=0
h=0
i=0
for j in range((l_c_mx_r),last_rng_setv,ci):
    real_mi[h]=low_range[h]-0.5
    real_mx[h]=high_range[h]-0.5
    h+=1
myt=PrettyTable([&quot;DataRange&quot;,&quot;Frequency Value&quot;,&quot;Reall
Limits&quot;,&quot;RelativeFrequency&quot;,&quot;CummulativeFrqeuncy&quot;,&quot;Cummulativ
ePercetinl
e &quot;])
for t in range(0,len(low_range)):
    myt.add_row([(str(low_range[t])+&quot;-
&quot;+str(high_range[t])),f[t],(str(real_mi[t])+&quot;-
&quot;+str(real_mx[t])),rf[t],cf[t],cf_p[t]])
print(myt)
x=[]
for i in range(0,len(f)):
    x.append((str(low_range[i])+&quot;-&quot;+str(high_range[i])))
print(&quot;&quot;)
print(&quot;THE RANGE VALUE IS :&quot;,rang_val)
print(&quot;THE CLASS INTERVAL IS: &quot;,int(ci))
print(&quot;The Relative Frequency is :  &quot;,round(sum(rf),1))
plt.bar(x,f)
plt.show()
```

Output:

```
Enter the no of data: 10
Enter a data of 1 55
Enter a data of 2 70
Enter a data of 3 40
Enter a data of 4 45
Enter a data of 5 60
Enter a data of 6 65
Enter a data of 7 39
Enter a data of 8 48
Enter a data of 9 52
Enter a data of 10 57
```

```
+----------+----------------+-------------+------------------+--------------------+-----------------------+
| Data Range | Frequency Value | Reall Limits | RelativeFrequency |
Cummulative Frqeuncy | Cummulative Percetinle |
+----------+----------------+-------------+------------------+--------------------+-----------------------+
| 35-39 | 1 | 34.5-38.5 | 0.1 |
1 | 10 |
| 40-44 | 1 | 39.5-43.5 | 0.1 |
2 | 20 |
| 45-49 | 2 | 44.5-48.5 | 0.2 |
4 | 40 |
| 50-54 | 1 | 49.5-53.5 | 0.1 |
5 | 50 |
| 55-59 | 2 | 54.5-58.5 | 0.2 |
7 | 70 |
| 60-64 | 1 | 59.5-63.5 | 0.1 |
8 | 80 |
| 65-69 | 1 | 64.5-68.5 | 0.1 |
9 | 90 |
| 70-74 | 1 | 69.5-73.5 | 0.1 |
10 | 100 |
+----------+----------------+-------------+------------------+----- ----------------+-----------------------+
THE RANGE VALUE IS : 31
THE CLASS INTERVAL IS: 5
The Relative Frequency is : 1.0
```



Correlation finding program

```
import math
```

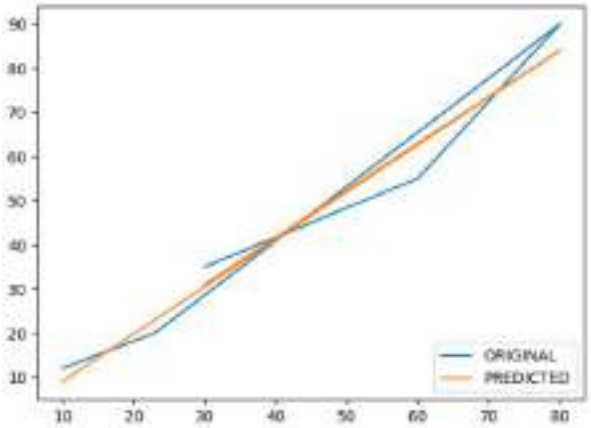
```
import matplotlib.pyplot as p
from prettytable import PrettyTable
x=[]
y=[]
n=int(input(&amp;quot;Enter the size of the dataset : &amp;quot;))
x1=0
y1=0
for i in range(0,n):
    print(&amp;quot;Enter the value of X&amp;quot;,(i+1),&amp;quot; :&amp;quot;)
    x1=int(input())
    print(&amp;quot;Enter the value  of Y&amp;quot;,(i+1),&amp;quot; :&amp;quot;)
    y1=int(input())
    x.append(x1)
    y.append(y1)
sx2=0
sy2=0
x_n=0
y_n=0
xy=0
x_y=0
for i in range(0,n):
    sx2=sx2+x[i]**2
    sy2=sy2+y[i]**2
    x_n=x_n+x[i]
    y_n=y_n+y[i]
    xy=xy+(x[i]*y[i])
x_y=(x_n*y_n)/n
ssx=sx2-((x_n**2)/n)
ssy=sy2-((y_n**2)/n)
sp=xy-x_y
r=(sp)/(math.sqrt(ssx*ssy))
b=r*(math.sqrt((ssy/ssx)))
a=(y_n/n)-(b*(x_n/n))
#predictingequ
Y_1=[]
y_1=0
for i in range(0,n):
    y_1=int(b*x[i]+a)
    Y_1.append(y_1)
if(r&amp;gt;0):
```

```
   print(&quot;The DATASET is positively related and the r value is : &quot;,r)
elif(r&lt;0):
   print(&quot;The DATASET is negatively related and the r value is : &quot;,r)

else:
   print(&quot;The DATASET has no relationship &quot;)
myt = PrettyTable([&quot;X&quot;,&quot;ORIGINAL Y VALUE&quot;,&quot;PREDICTED Y
        VALUE &quot;])
for i in range(0,n):
   myt.add_row([x[i],y[i],Y_1[i]])
print(myt)
p.plot(x,y)
p.plot(x,Y_1)
p.legend([&quot;ORIGINAL&quot;,&quot;PREDICTED&quot;],loc=&quot;lower right&quot;)
p.show()
```

Output:

```
Enter the size of the dataset : 5
Enter the value of X 1 : 30
Enter the value of Y 1 :  35
Enter the value of X 2 :60
Enter the value of Y 2 : 55
Enter the value of X 3 : 80
Enter the value of Y 3 : 90
Enter the value of X 4 : 23
Enter the value of Y 4 :20
Enter the value of X 5 :10
Enter the value of Y 5 :12
The DATASET is positively related and the r value is :
0.9832258390334027
+----+-----------------+-------------------+
| X | ORIGINAL Y VALUE | PREDICTED Y VALUE |
+----+-----------------+-------------------+
| 30 | 35 | 31 |
| 60 | 55 | 63 |
| 80 | 90 | 84 |
| 23 | 20 | 23 |
| 10 | 12 | 9 |
+----+-----------------+-------------------+
```


ORIGINAL
PREDICTED

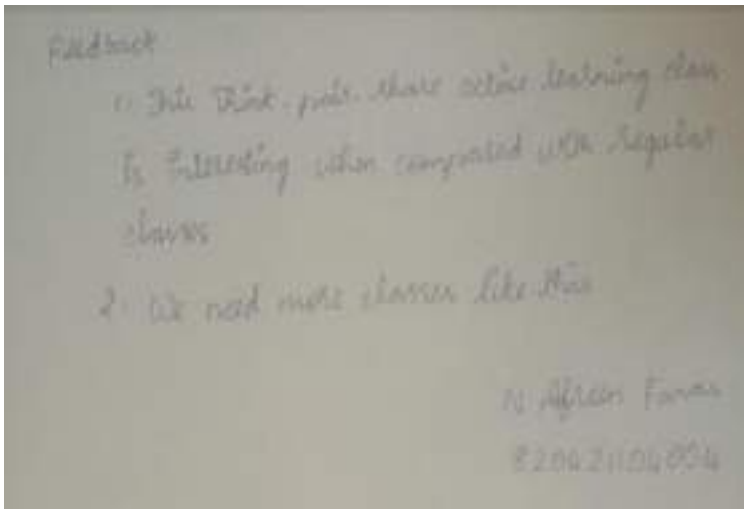
Active Learning- Think Pair Share Activity

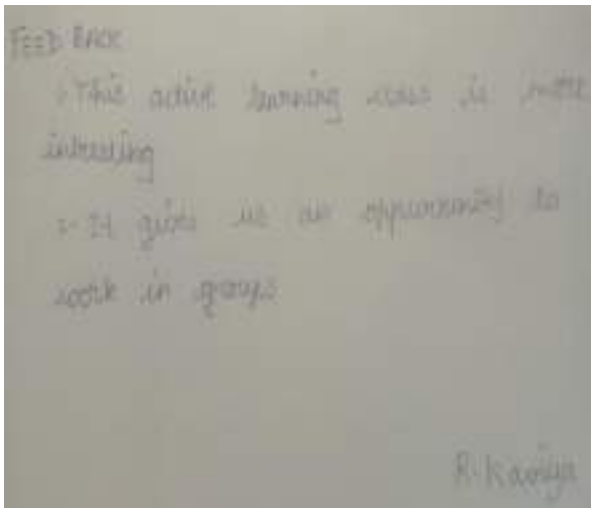
Active learning is an approach to instruction that involves actively engaging students with the course material through discussions, problem solving, case studies, role plays and other methods. Think-Pair-Share (TPS) is a cooperative learning activity that can work in varied size classrooms and in any subject. Instructors pose a question, students first THINK to themselves prior to being instructed to discuss their response with a person sitting near them (PAIR). Finally, the groups SHARE out what they discussed with their partner to the entire class and discussion continues. Students get time to think critically, creating a learning environment that encourages high quality responses.

Subject: CS3492 - Database Management Systems
Topic: Unit 3 topics
Batch: 2021-2025
Year: II CSE A
Date: 10.04.2023
Staff Name: Mrs.K.Karthika



Feedback on Think Pair Share Activity





Active Learning Report Academic Year 2021-2022

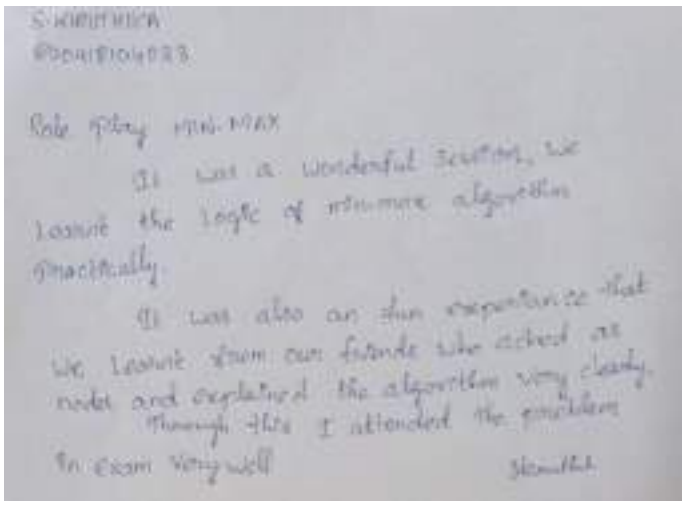
Active Learning- Role Play Activity

Role play is a form of experiential learning. Students take on assigned roles and act out those roles through a scripted play. The role play can be carried out one-to-one (individual role play) or as a group role play with each member in the group taking on a role/character. Roles and rules for a role play are clearly defined in the script. Role plays can provide very powerful learning experiences for students by immersing them in simulated real world situations in which students act out a particular role/character in a safe environment.

Subject: CS8691-Artificial Intelligence
Topic: Min-Max Algorithm
Date: March 12 2021
Batch: 2018-2022
Year: III CSE A & B
Staff Name: Mrs. S.Farjana Farvin



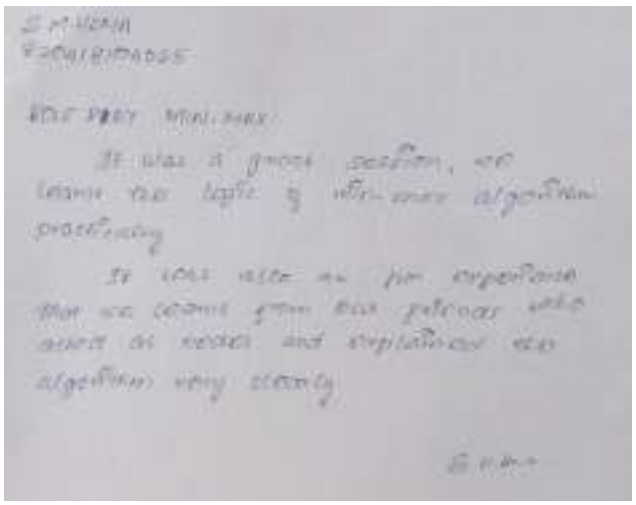
Feedback on Role Play Activity



Role play MIN-MAX

It was a wonderful session, we learnt the logic of minimax algorithm practically.

It was also an fun experience that we learnt from our friends who acted as nodes and explained the algorithm very clearly. Through this I attended the problem in exam very well



Active Learning -Crossword Puzzle using Jcross

Crossword puzzle technique increases the interest of students in exam point of view to solve multiple choice questions. Crossword puzzle is advantageous in self-correcting method due to the length of each word and the overlap of each answer with other answers. Among many games, crossword puzzles seem to be more attractive than others. The Crossword puzzle is a kind of word game. In crossword puzzle, the blank squares are arranged with number assigned to some of square. The student has to accurately fill in all the blank squares with letters those form words. The words are based on the clues provided, which can be complete sentences, phrases, or words. It is one type of game, so this an enjoyable activity rather than regular multiple choice questions test.

Subject: CS8691-Artificial Intelligence
Topic: Search Strategies
Date: March 12 2021
Batch: 2018-2022
Year: III CSE A & B
Staff Name: Mrs. S.Farjana Farvin

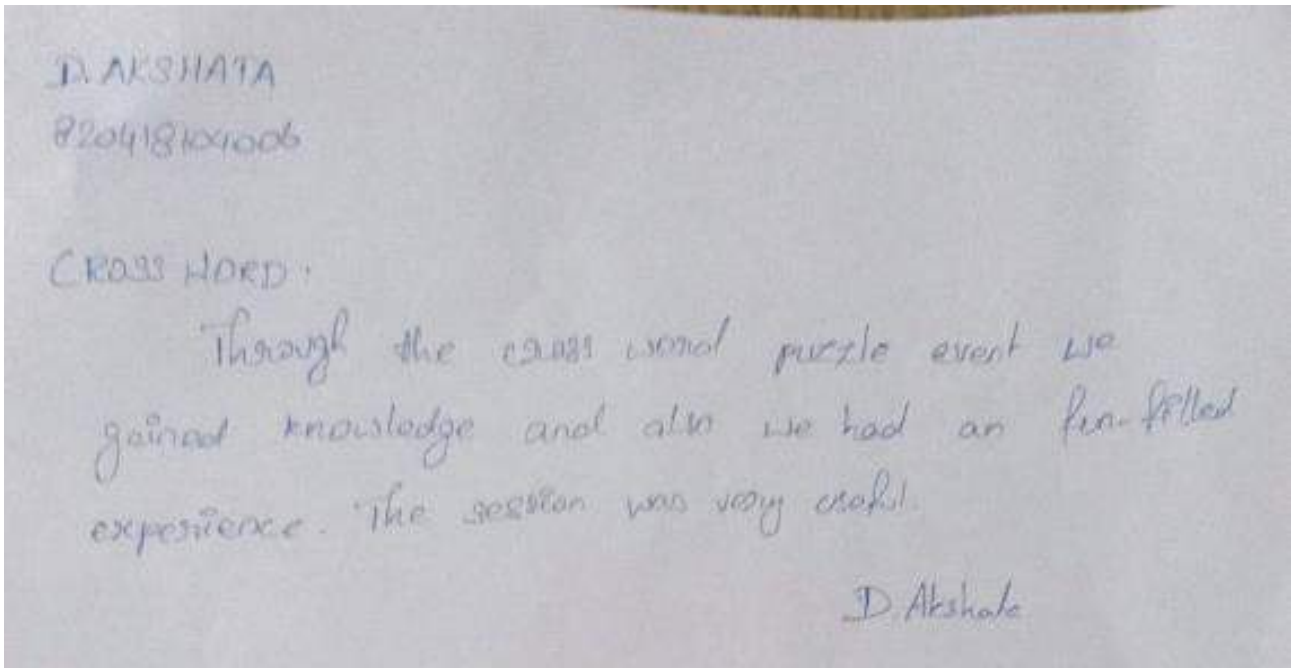
Artificial Intelligence - Search Strategies



Across:	
1	One Search from Starting to Goal .Another one from Goal to Starting Node.
3	Simple Adversarial Search
6	Heuristic Search which is not producing optimal Solution
7	Same as Breadth First Search if all path cost are equal
8	Agent which maximize performance measure based on percept history and action
9	Current Path is not leading to Goal State in DFS .then We have to do this
10	Cutting the branches which is not influencing the final result
11	One of the CSP Solving method
12	Famous problem deals with jugs
13	Considering only current state and neighbor state.

14	One of the Performance measurement parameter for algorithm
Down:	
2	Compare current state with neighbor state. If the neighbour state improves my current state, move to that neighbor
4	f(n)=g(n)+h(n)
5	Depth First Search with Cutoff
6	selection,crossover,mutation

Feedback on Crossword puzzles Activity



Active Learning- Discussion Activity

A class discussion may be held in person or in an online environment. Discussions can be conducted with any class size, although it is typically more effective in smaller group settings. This environment allows for instructor guidance of the learning experience. Discussion requires the learners to think critically on the subject matter and use logic to evaluate their and others positions. As learners are expected to discuss material constructively and intelligently, a discussion is a good follow-up activity given the unit has been sufficiently covered already. Some of the benefits of using discussion as a method of learning are that it helps students explore a diversity of perspectives, it increases intellectual agility, it shows respect for student voices and experiences, it develops habits of collaborative learning

Subject: CS8592-Object Oriented Analysis and Design **Topic:** Impact of Object Orientation on Testing

Date: December 2021 **Batch:** 2018-2022

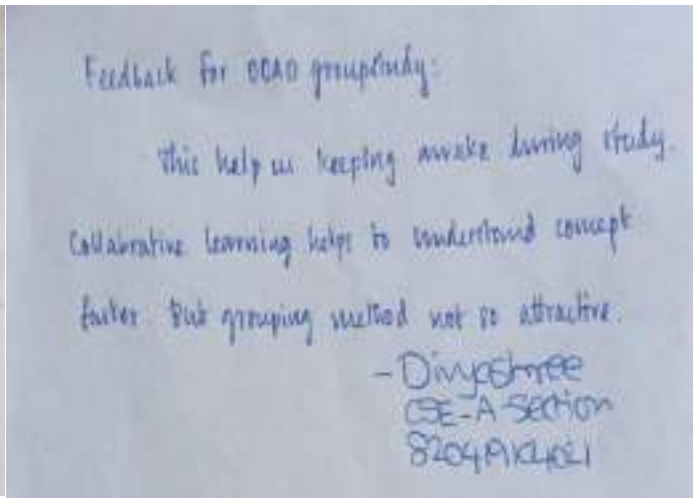
Year: III CSE A & B **Staff Name:** G.Kalaiselvi





Feedback on Discussion Activity



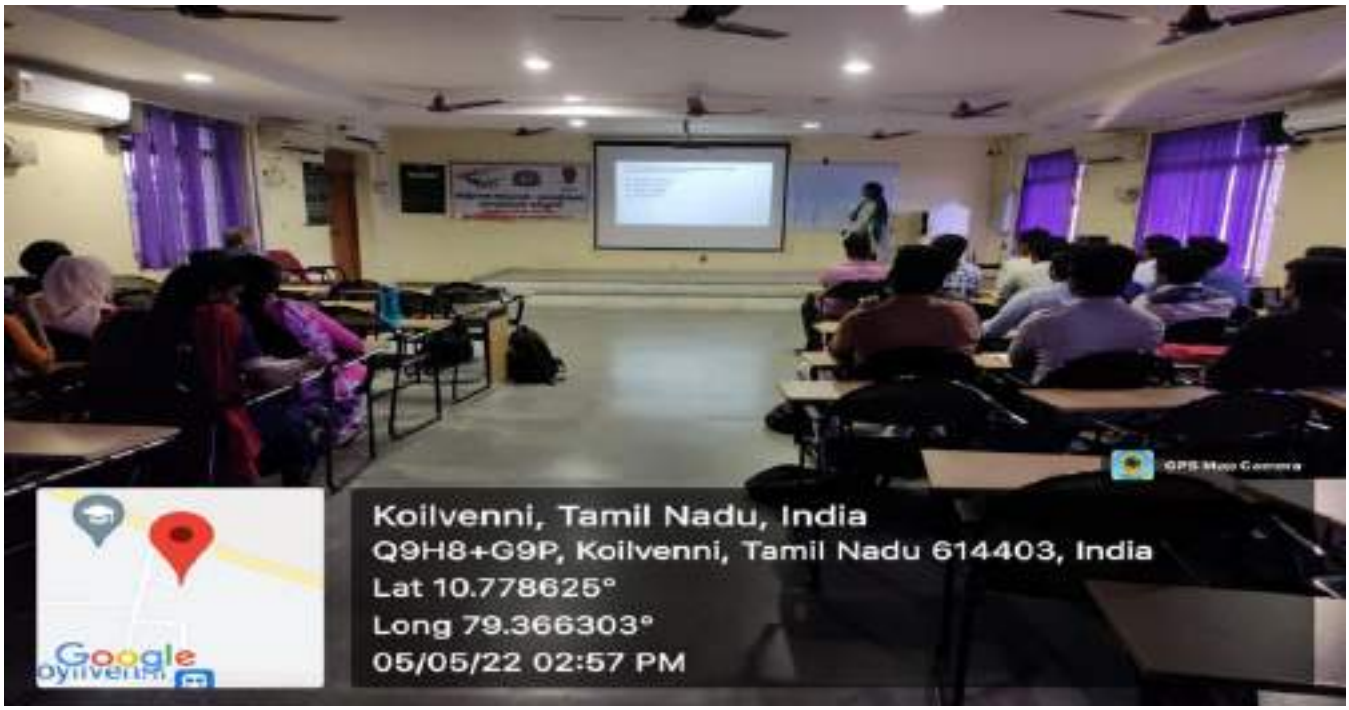


Active Learning- Quiz

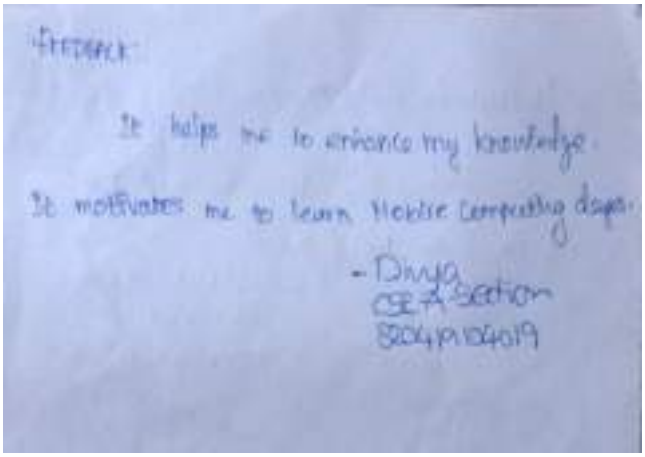
In active learning environments, students are actively engaged in tasks that require them to go beyond the passive reception and understanding of content. That is to say, tasks that requires the learner to do something using higher order thinking such as analysis, synthesis or evaluation of content, and to think about what itis they are doing.

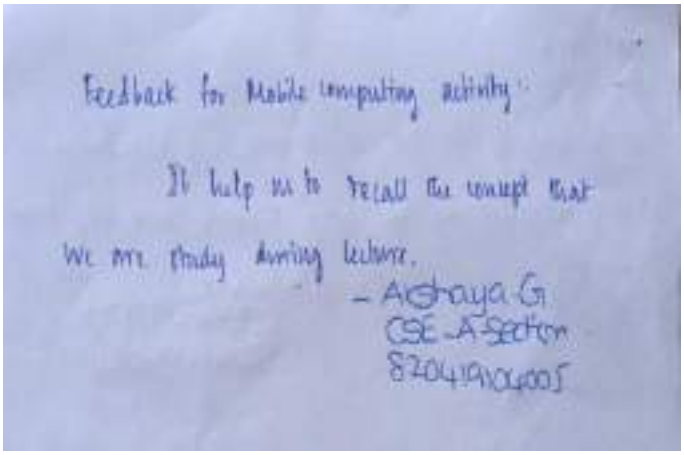
Online quizzes were found to be an effective mechanism for incentivizing student completion of preparatory work, enhancing active learning and were relatively time efficient from the perspective of the educator.

Subject: CS8601-Mobile Computing
Topic: Unit I &Unit II
Date: May 05 2022
Batch: 2019-2023
Year: III CSE A & B
Staff Name: Dr.G.Nanthakumar



Feedback on Quiz Activity





Activity Name: Think Pair Share

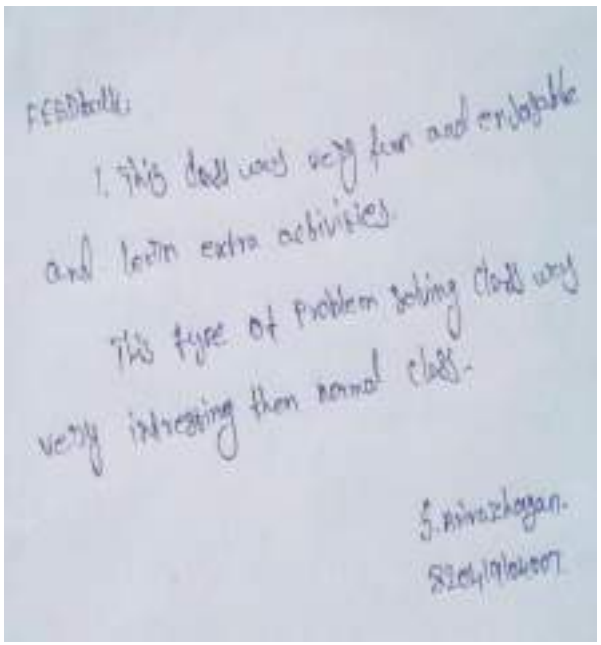
Think Pair Share activity is a strategy that takes only 3 minutes in lectures or tutorials, even online, in any discipline. A Think Pair Share activity enhances student learning by facilitating students' thinking about an issue then facilitating students' interaction with one peer to explain their ideas and listening to their peer's ideas. It can follow (or be followed) by a minute of writing by simply adding one minute of writing before or after the Think Pair Share. By writing their thoughts, students must clarify their thoughts. Writing others' comments helps students to listen.

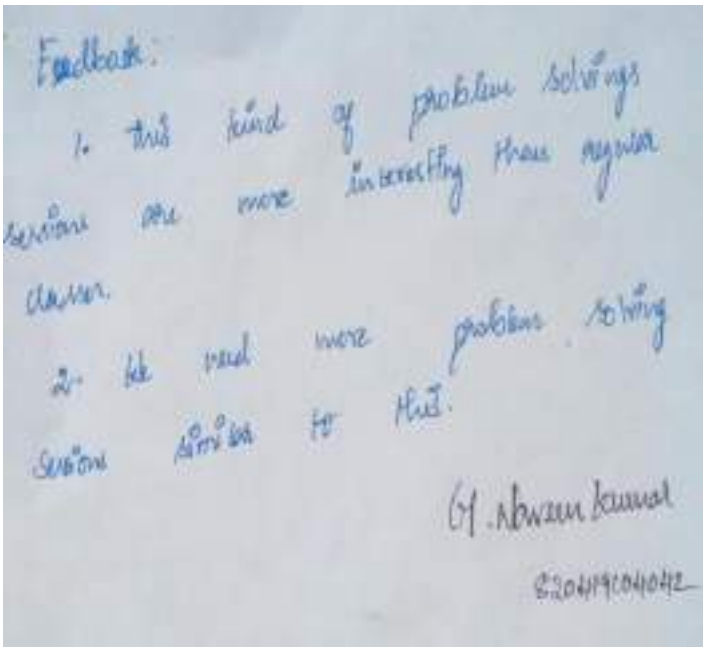
Subject: Artificial Intelligence
Topic: Constraint Satisfaction Problems
Date: May 06 2022
Batch: 2019-2023
Year: III CSE A & B
Staff Name: Mrs. S.Farjana Farvin





Feedback on Think Pair Share Activity





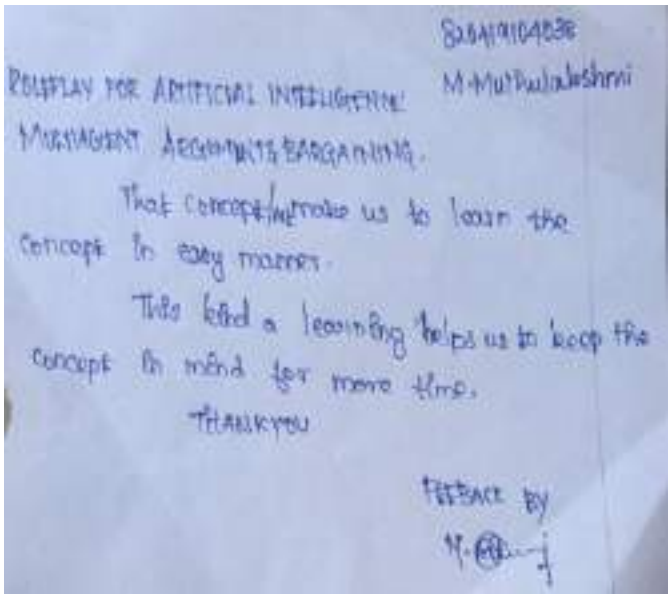
Activity Name: Role Play Activity

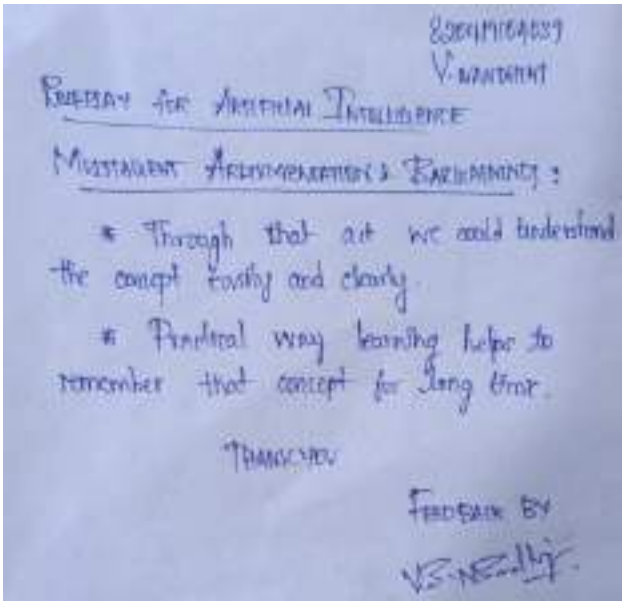
Role play is a form of experiential learning. Students take on assigned roles and act out those roles through a scripted play. The role play can be carried out one-to-one (individual role play) or as a group role play with each member in the group taking on a role/character. Roles and rules for a role play are clearly defined in the script. Role plays can provide very powerful learning experiences for students by immersing them in simulated real world situations in which students act out a particular role/character in a safe environment.

Subject: Artificial Intelligence
Topic: Multi Agent- Agent Argumentation
Date: May 09 2022
Batch: 2019-2023
Year: III CSE A & B
Staff Name: Mrs. S.Farjana Farvin



Feedback on Role Play Activity

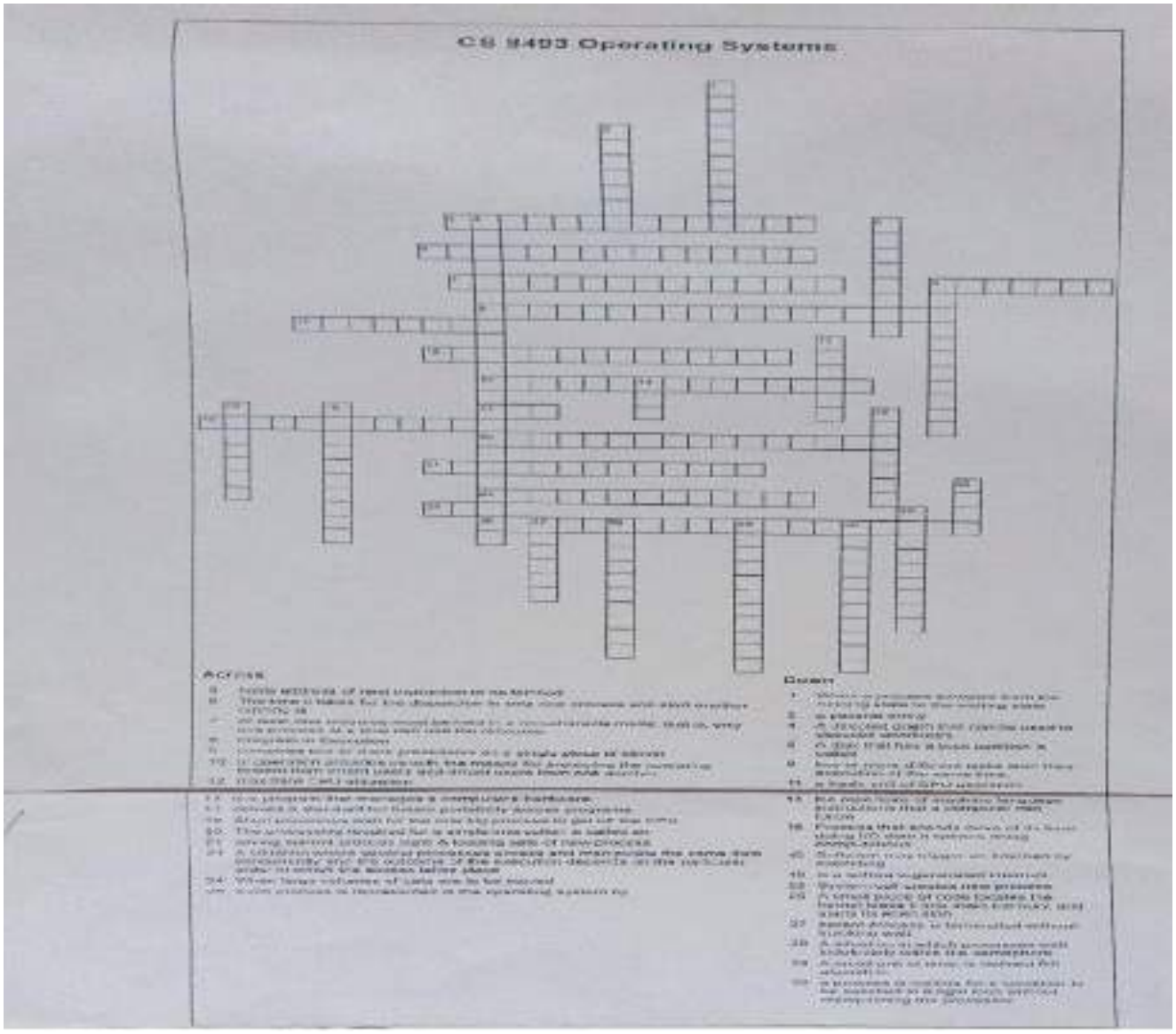


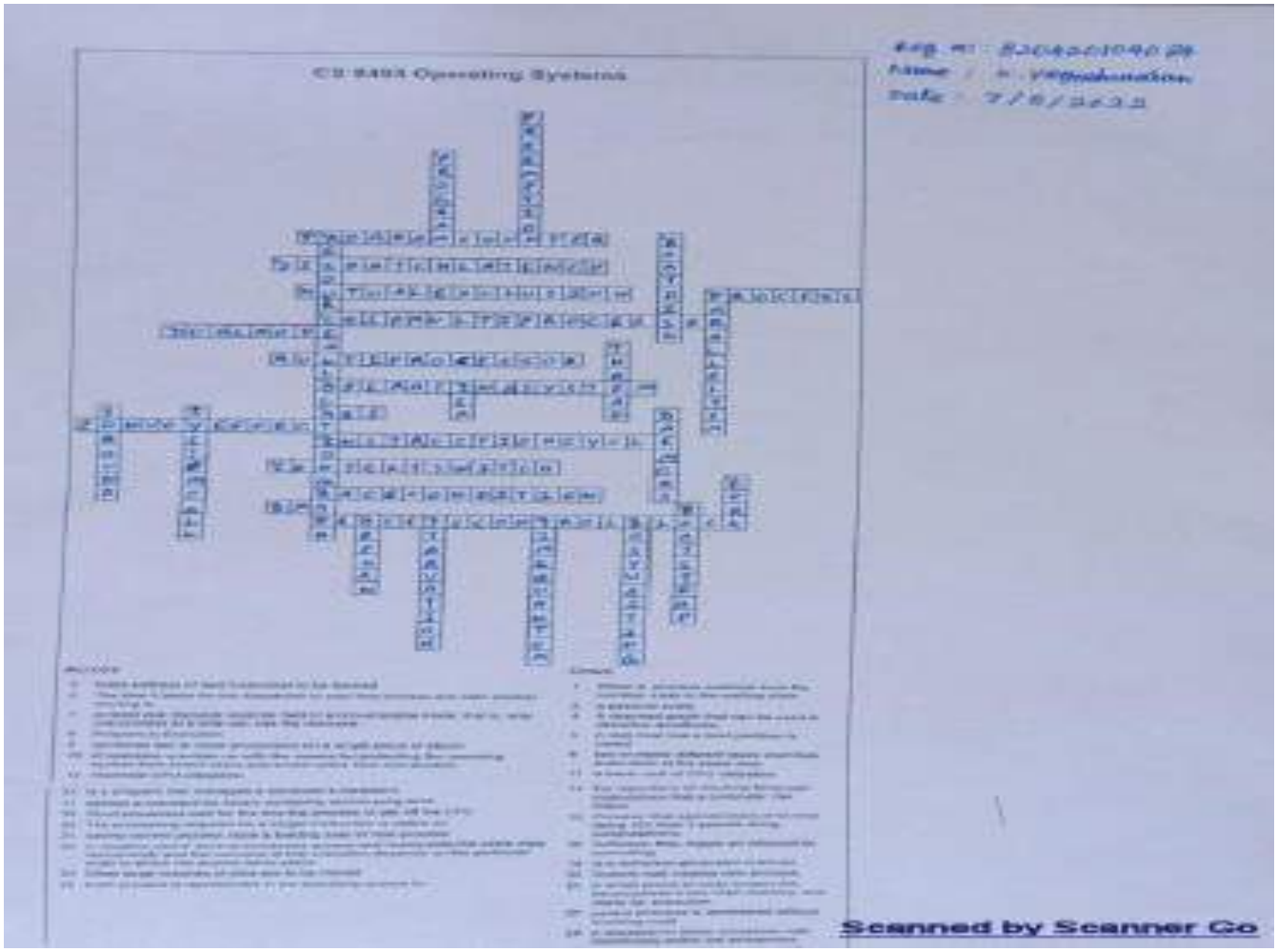


Active Learning- Crossword Puzzle

Crossword puzzle technique increases the interest of students in exam point of view to solve multiple choice questions. Crossword puzzle is advantageous in self-correcting method due to the length of each word and the overlap of each answer with other answers. Among many games, crossword puzzles seem to be more attractive than others. The Crossword puzzle is a kind of word game. In crossword puzzle, the blank squares are arranged with number assigned to some of square. The student has to accurately fill in all the blank squares with letters those form words. The words are based on the clues provided, which can be complete sentences, phrases, or words. It is one type of game, so this an enjoyable activity rather than regular multiple choice questions test

Subject: CS8493- Operating Systems
Topic: Unit I &Unit II
Date: May 05 2022
Batch: 2020-2024
Year: II CSE A & B
Staff Name: Mrs. G.Kalaiselvi





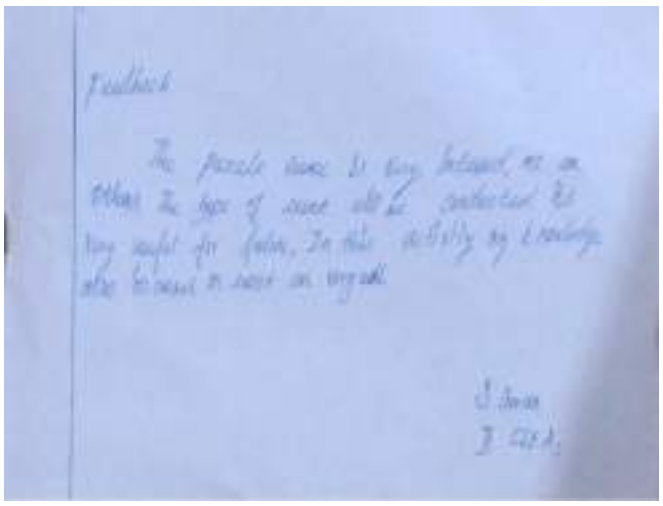


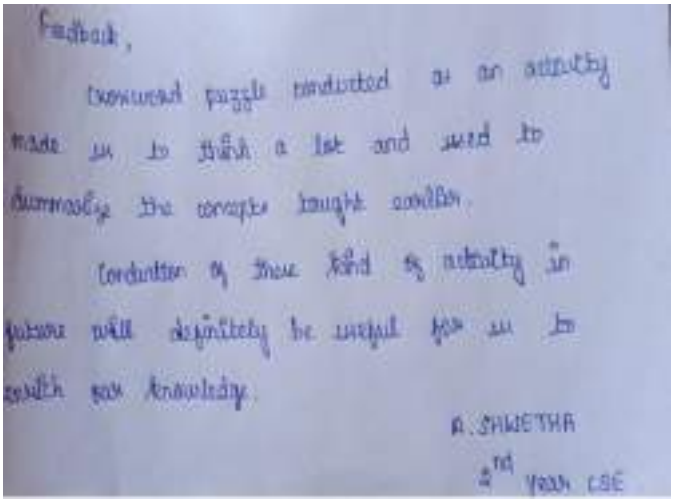


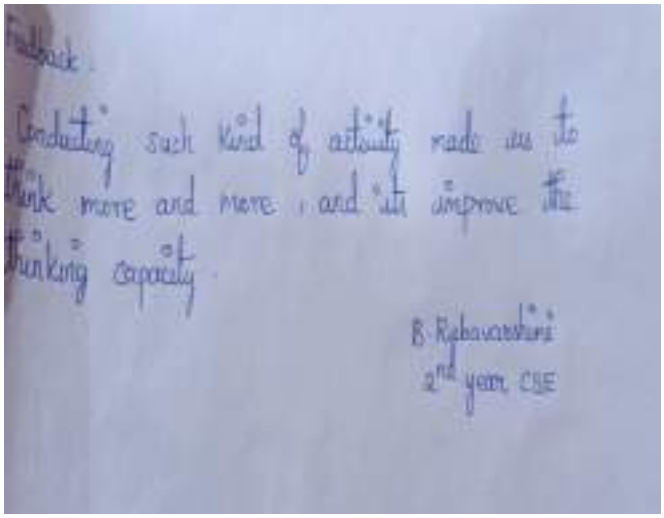
Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

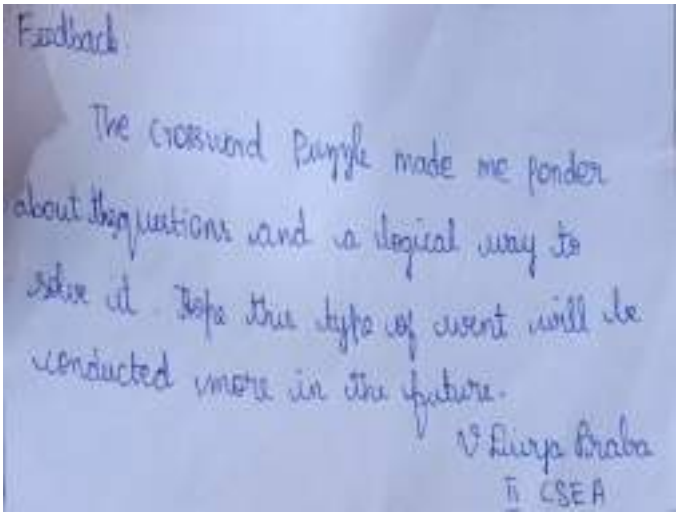
Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

Feedback on Crossword puzzles Activity









5.6. Faculty as participants in Faculty development/training activities/STTPs(15)

- A Faculty scores maximum five points for participation
- Participation in 2 to 5 days Faculty development program: 3 Points
- Participation>5 days Faculty development program: 5 points

Academic Year 2023-2024

Sl.No.	Name of the faculty	Max .5 per Faculty		
		CAY m1 2022-2023	CAYm2 2021-2022	CAYm3 2020-2021
1.	Dr.K.Velmurugan	0	0	0
2.	Dr.G.Nantha Kumar	0	0	0
3.	Mr.R.Arunachalam	5	5	5
4.	Mr.P.Manikanda Prabu	5	0	5
5.	Mrs.K.Karthika	0	0	5

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

6.	Mr.K.Pazhanivel	0	5	5
7.	Mr.P.Dinesh	0	0	0
8.	Mrs.P.Immaculate Rexi Jenifer	5	5	3
9.	Mrs.G.Kalaiselvi	5	5	5
10.	Mrs.S.Farjana Farvin	5	5	5
11.	Mrs.P.Elakkiya	0	5	5
12.	Dr.T.Vigneswari	5	5	5
13.	Mrs.K.Nithiya	0	0	0
14.	Mr.G.Rajaraman	0	0	0
15.	Mrs.J.B.Pradeepa	0	0	0
sum		**30**	**30**	**50**
RF=Number of Faculty required to comply with 20:1 student faculty ratio		**14**	**14**	**14**
Assessment = 3x(sum/0.5RF)		**12.85**	**12.85**	**21.38**
Average assessment over three years		**15.69**		

Academic Year 2022-2023

Sl.No.	Name of the faculty	Max .5 per Faculty		
		CAY m1 2021-2022	CAYm2 2020-2021	CAYm3 2019-2020
16.	Dr.K.Velmurugan	0	0	0
17.	Dr.G.Nantha Kumar	0	0	0
18.	Mr.R.Arunachalam	5	5	0
19.	Mr.P.Manikanda Prabu	0	5	5
20.	Mrs.K.Karthika	0	5	5
21.	Mr.K.Pazhanivel	5	5	5
22.	Mr.A.Abul Hasan	0	0	5
23.	Mr.P.Dinesh	0	0	5
24.	Mrs.P.Immaculate Rexi Jenifer	5	3	0
25.	Mrs.G.Kalaiselvi	5	5	5
26.	Mrs.S.Farjana Farvin	5	5	5
27.	Mrs.P.Elakkiya	5	5	5
28.	Dr.T.Vigneswari	0	5	5
29.	Mrs.K.Nithiya	0	0	3
30.	Dr.J.Ganesh	0	0	0
31.	Mr.N.Poongavanam	0	5	3
sum		**30**	**50**	**48**
RF=Number of Faculty required to comply with 20:1 student faculty ratio		**14**	**14**	**14**
Assessment = 3x(sum/0.5RF)		**12.85**	**21.38**	**21.10**
Average assessment over three years		**18.44**		

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

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Academic Year 2021-2022

Sl.No.	Name of the faculty	Max .5 per Faculty		
		CAY m1 2020-2021	CAYm2 2019-2020	CAYm3 2018-2019
1.	Dr.K.Velmurugan	0	0	0
2.	Dr.G.Nantha Kumar	0	0	0
3.	Mr.R.Arunachalam	5	0	0
4.	Dr.S.Jagadeesan	0	0	0
5.	Dr.J.Ganesh	0	0	0
6.	Mr.P.Manikanda Prabu	5	5	0
7.	Mr.R.RogerSamson	0	0	0
8.	Mrs.K.Karthika	5	5	0
9.	Mr.K.Pazhanivel	5	5	0
10.	Mr.A.Abul Hasan	0	5	0
11.	Mr.P.Dinesh	0	0	5
12.	Mrs.P.Immaculate Rexi Jenifer	5	5	0
13.	Mrs.G.Kalaiselvi	5	5	0
14.	Mrs.S.Farjana Farvin	5	5	0
15.	Mrs.P.Elakkiya	5	5	0
16.	Mr.N.Poongavanam	5	3	0
17.	Dr.T.Vigneswari	5	5	0
sum		**50**	**48**	**5**
RF=Number of Faculty required to comply with 20:1 student faculty ratio		**14**	**14**	**14**
Assessment = 3x(sum/0.5RF)		**21.38**	**21.10**	**2.14**
Average assessment over three years		**14.94**		

Table B.5.6.1 Faculty as participants in Faculty development/training activities/STTPs

Sl.No	Name of the Faculty	Faculty development/training activities/STTPs	Duration	Academic Year
1.	Mr.P.Manikandaprabhu	FDP on Cyber Security KLN collegeof Engineering Madurai	01/02/2024 - 03/02/2024	2023-2024
2.	Mrs.K.Karthika	FDP on Experience Based Project Learning (EBPL)	11/03/2024 - 16/03/2024	2023-2024
3.	Mr.K.Pazhanivel	FDP on Cyber Security and its applications	07/08/2023 – 11/08/2023	2023-2024
4.	Mrs.G.Kalaiselvi	FDP on Cognitive computing for smart applications	18/03/2024- 22/03/2024	2023-2024
5.	Mrs.G.Kalaiselvi	NM-TNcpl FDP on Applications of Generative AI	17/11/2023- 18/11/2023	2023-2024
6.	Mrs.G.Kalaiselvi	NPTEL-AICTE Faculty Development Programme on Python for Data	Jul-Aug 2023	2023-2024

		Science		
7.	Mrs.S.Farjana Farvin	Enpowerment in Education	08/01/2024-12/01/2024	2023-2024
8.	Mrs.S.Farjana Farvin	One week FDP on AI NEXUS-Advancing AI Education	08/01/2024-12/01/2024	2023-2024
9.	Mrs.S.Farjana Farvin	NPTEL-AICTE Faculty Development Programme on Introduction to machine Learning	Jul-Sep 2023	2023-2024
10.	Mrs.S.Farjana Farvin	NPTEL-AICTE Faculty Development Programme on Natural Language Processing	Jul-Oct 2023	2023-2024
11.	Mrs.S.Farjana Farvin	NPTEL-AICTE Faculty Development Programme on Deep Learning	Jul-Oct 2023	2023-2024
12.	Mrs.S.Farjana Farvin	NPTEL-AICTE Faculty Development Programme on Computer Vision	Jul-Oct 2023	2023-2024
13.	Mrs.S.Farjana Farvin	NPTEL-AICTE Faculty Development Programme on Python for Data Science	Jul-Aug 2023	2023-2024
14.	Mrs.S.Farjana Farvin	One week FDP on Artificial Intelligence and Cloud Computing	10/07/2023-14/07/2023	2023-2024
15.	Mrs.P.Elakkiya	FDP on Cognitive computing for smart applications	18/03/2024-22/03/2024	2023-2024
16.	Mrs.P.Elakkiya	NM-TNcpl FDP on Applications of Generative AI	17/11/2023-18/11/2023	2023-2024
17.	Dr.T.Vigneswari	FDP on Cognitive computing for smart applications	18/03/2024-22/03/2024	2023-2024
18.	Mrs.K.Nithiya	One week FDP on Next Generation Artificial Intelligence	11/03/2024-16/03/2024	2023-2024
19.	Mrs.K.Nithiya	FDP on Cognitive computing for smart applications	18/03/2024-22/03/2024	2023-2024
20.	Mrs.J.B.Pradeepa	FDP on Cognitive computing for smart applications	18/03/2024-22/03/2024	2023-2024
21.	Mrs.J.B.Pradeepa	Empowerment in Education	19/02/2024-23/02/2024	2023-2024
22.	Mrs.J.B.Pradeepa	Cognitive computing for smart applications	01/02/2024-05/04/2024	2023-2024
23.	Mrs.J.B.Pradeepa	Enpowerment in Education	08/01/2024-12/01/2024	2023-2024
24.	Mr.R.Arunachalam	FDP on Applications of Machine Learning in modern cloud era	28/10/2022 - 03/11/2022	2022-2023
25.	Mr.P.Manikanda Prabu	FDP on CS8791-Cloud Computing Under Centre For Faculty Development Anna University	18/07/2022-23/07/2022	2022-2023

		Chennai		
26.	Mrs.P.Immaculate Rexi Jenifer	FDP on CS8791-Cloud Computing Under Centre For Faculty Development Anna University Chennai	18/07/2022-23/07/2022	2022-2023
27.	Mrs.G.Kalaiselvi	One Week Faculty Development Programme on Artificial intelligence in Advanced Machine learning and Cloud Computing	10/07/2023-14/07/2023	2022-2023
28.	Mrs.G.Kalaiselvi	A 10-Day Faculty Development Programme on Open Challenges and Research Issues in Block Chain Technology, Sponsored by MeitY ,E&ICT,NIT Warangal	10/04/2023-20/04/2023	2022-2023
29.	Mrs.G.Kalaiselvi	Recent Trends in Energy Harvesting and Storage Technologies	19/01/2023 - 20/01/2023	2022-2023
30.	Mrs.G.Kalaiselvi	Gujarat Council of Science & Technology Sponsored One Week Virtual National Level Faculty Development Program On Research: Vision To Solve Problems Through Different Angles	15/10/2022-20/10/2022	2022-2023
31.	Mrs.G.Kalaiselvi	FDP on CS8791-Cloud Computing Under Centre For Faculty Development Anna University Chennai	18/07/2022-23/07/2022	2022-2023
32.	Mrs.S.FarjanaFarvin	FDP on CS8791-Cloud Computing Under Centre For Faculty Development Anna University Chennai	18/07/2022-23/07/2022	2022-2023
33.	Mrs.S.FarjanaFarvin	Gujarat Council of Science & Technology Sponsored One Week Virtual National Level Faculty Development Program On Research: Vision To Solve Problems Through Different Angles	15/10/2022-20/10/2022	2022-2023
34.	Mrs.S.FarjanaFarvin	Course on Cyber Security under Microsoft Cybershikshaa for Educators Program	03/08/2022 - 12/08/2022	2022-2023
35.	Mrs.S.FarjanaFarvin	Recent Trends in Energy Harvesting and Storage Technologies	19/01/2023-20/01/2023	2022-2023
36.	Mrs.S.FarjanaFarvin	NPTEL-AICTE Faculty Development Programme on Data Analytics with	Jan-April	2022-2023

		Python		
37.	Mrs.S.Farjana Farvin	One Week Faculty Development Programme on Artificial intelligence in Advanced Machine learning and Cloud Computing	10/07/2023-14/07/2023	2022-2023
38.	Mrs.P.Elakkiya	FDP on CS8791-Cloud Computing Under Centre For Faculty Development Anna University Chennai	18/07/2022-23/07/2022	2022-2023
39.	Dr.T.Vigneswari	Recent Trends in Energy Harvesting and Storage Technologies	19/01/2023 - 20/01/2023	2022-2023
40.	Dr.T.Vigneswari	FDP on Machine Learning and real time application	06/03/2023-10/03/2023	2022-2023
41.	Dr.T.Vigneswari	FDP on Machine Learning in Health care	09/01/2023-13/01/2023	2022-2023
42.	Mrs.K.Nithiya	FDP on Machine Learning and real time application	06/03/2023-10/03/2023	2022-2023
43.	Dr.J.Ganesh	FDP on CS8791-Cloud Computing Under Centre For Faculty Development Anna University Chennai	18/07/2022-23/07/2022	2022-2023
44.	Mr.R.Arunachalam	FDP on Machine Learning and Artificial Intelligence in Data Science	24/05/2021-02/06/2021	2021-2022
45.	Mr.K.Pazhanivel	FDP on CS8091-Bigdata Analytics Under Centre For Faculty Development Anna University Chennai	15/12/2021 21/12/2021	2021-2022
46.	Mrs.P.Immaculate Rexi Jenifer	FDP on CS8091-Bigdata Analytics Under Centre For Faculty Development Anna University Chennai	15/12/2021 21/12/2021	2021-2022
47.	Mrs.G.Kalaiselvi	Recent Trends in Wireless sensor Networks Sponsored by MeitY ,E&ICT,NIT Warangal	07/03/2023-16/03/2023	2021-2022
48.	Mrs.G.Kalaiselvi	AICTE-ISTE Approved FDP on Block Chain Technology in Health Care	30/12/2021-05/01/2022	2021-2022
49.	Mrs.G.Kalaiselvi	FDP on CS8091-Bigdata Analytics Under Centre For Faculty Development Anna University Chennai	15/12/2021 - 21/12/2021	2021-2022
50.	Mrs.S.FarjanaFarvin	NPTEL-AICTE Faculty Developed Programme on Programming in Java,	Jan-Apr	2021-2022

		Course Duration		
51.	Mrs.S.FarjanaFarvin	AICTE-ATAL FDP on Research Trends in Computer Vision and Natural Language Processing	19/07/2021-23/07/2021	2021-2022
52.	Mrs.S.FarjanaFarvin	AICTE-ATAL FDP on Mobile Robotics	16/06/2021 - 20/06/2021	2021-2022
53.	Mrs.P.Elakkiya	FDP on CS8091-Bigdata Analytics Under Centre For Faculty Development Anna University Chennai	15/12/2021 21/12/2021	2021-2022
54.	Mr.R.Arunachalam	Faculty Development Programme On C	11/08/2020	2020-2021
55.	Mr.P.ManikandaPrabu	Deep Learning With Matlab And Python	13/07/2020-17/07/2020	2020-2021
56.	Mr.P.ManikandaPrabu	Programme on C	11/08/2020	2020-2021
57.	Mr.P.ManikandaPrabu	Industrial Automation using PLC/SCADA with IoT	21/09/2020-25/09/2020	2020-2021
58.	Mr.P.ManikandaPrabu	Integrated Approach in Achieving Holistic, Sustainable and Quality Enhancement in Higher Education Institution	21/12/2020-26/12/2020	2020-2021
59.	Mr.K.Pazhanivel	Data-virtualization and cyber security in cloud	07/07/2020-12/07/2020	2020-2021
60.	Mr.K.Pazhanivel	Moodle Learning Management system	14/12/2020 - 26/12/2020	2020-2021
61.	Mr.K.Pazhanivel	Faculty Development Programme on C	11/08/2020	2020-2021
62.	Mr.K.Pazhanivel	Block chain technology and cyber security	09/07/2020 - 12/07/2020	2020-2021
63.	Mrs.G.Kalaiselvi	Faculty Development Programme on C	11/8/2020	2020-2021
64.	Mrs.G.Kalaiselvi	Faculty Development Programme under Margdarshan scheme	21/12/2020 - 26/12/2020	2020-2021
65.	Mrs.G.Kalaiselvi	Faculty Development Programme on Moodle Learning Management System	14/12/2020 - 26/12/2020	2020-2021
66.	Mrs.P.Elakkiya	Image Processing and Data Science	26 /06/2020-29/06/2020	2020-2021
67.	Mrs.P.Elakkiya	C and Cpp	01/10/2020	2020-2021
68.	Mr.N.Poongavanam	Image Processing And Data Science	26/06/2020 - 29/06/2020	2020-2021
69.	Mr.N.Poongavanam	Moodle Learning Management system	14/12/2020 - 26/12/2020	2020-2021
70.	Mr.R.Arunachalam	National Level Online FDP Phase/II on Machine Learning and Artificial Intelligence on Data Science	24/05/2021-02/06/2021	2020-2021

71.	Mrs.K.Karthika	Internet of Things	25/01/2021 - 29/01/2021	2020-2021
72.	Mrs.K.Karthika	Artficial Intelligence and Ambient Intelligence	15/02/2021 - 27/02/2021	2020-2021
73.	Mrs.P.Immaculate Rexi Jenifer	Internet of Things	25/01/2021 - 29/01/2021	2020-2021
74.	Mrs.G.Kalaiselvi	AICTE Sponsored FDP on Emerging Trends and Research challenges in Next generation Wireless Networks	29/03/2021- 03/04/2021	2020-2021
75.	Mrs.G.Kalaiselvi	AICTE Training And Learning (ATAL) Academy online FDP on "Internet of Things (IoT)"	04/01/2021 - 08/01/2021	2020-2021
76.	Mrs.G.Kalaiselvi	AICTE Training And Learning (ATAL) Academy Online FDP on "Mathematics for Machine learning"	18/01/2021 - 22/01/2021	2020-2021
77.	Mrs.G.Kalaiselvi	AICTE Training And Learning (ATAL) Academy Online FDP on "Artificial Intelligence, machine Learning and Deep Learning	02/02/2021 - 06/02/2021	2020-2021
78.	Mrs.G.Kalaiselvi	AICTE Sponsored FDP on Artificial intelligence and Ambient Intelligence	15/02/2021 - 27/02/2021	2020-2021
79.	Mrs.S.FarjanaFarvin	FDP on Comprehensive Learning of Python Programming	27/06/2021	2020-2021
80.	Mrs.S.FarjanaFarvin	Artificial Intelligence and Robotics	18/01/2021 - 22/01/2021	2020-2021
81.	Mrs.S.FarjanaFarvin	Artificial Intelligence	22/02/2021 - 26/02/2021	2020-2021
82.	Mrs.S.FarjanaFarvin	Blended Learning & Flipped classroom	01/03/2021 - 05/03/2021	2020-2021
83.	Mrs.S.FarjanaFarvin	Outcome Based Assessment	15/03/2021 - 19/03/2021	2020-2021
84.	Mrs.P.Elakkiya	Artificial Intelligence and Ambient Intelligence	15/02/2021- 27/02/2021	2020-2021
85.	Mr.P.ManikandaPrabu	C AND Cpp	01/01/2020- 30/06/2020	2019 - 2020
86.	Mr.K.Pazhanivel	Angular and Business Intelligence	30/05/2020 - 31/05/2020	2019 - 2020
87.	Mr.K.Pazhanivel	Cryptography and network security	11/05/2020 - 15/05/2020	2019 - 2020
88.	Mr.K.Pazhanivel	Data analysis & visualisation of covid 19 data set using python	07/05/2020	2019 - 2020
89.	Mr.K.Pazhanivel	Python 3.4.3	04/05/2020- 08/05/2020	2019 - 2020

90.	Mrs.G.Kalaiselvi	Faculty Development Programme on R Programming	22/05/2020 - 28/05/2020	2019 - 2020
91.	Mr.N.Poongavanam	Python 3.4.3	04/05/2020 - 08/05/2020	2019 - 2020
92.	Mr.R.Arunachalam	Online Faculty Development Program on Innovative Trends in Data Analysis with AI	26/05/2020- 30/05/2020	2019 - 2020
93.	Mr.K.Pazhanivel	Key technologies driving fourth industrial resolution	10/06/2020 - 15/06/2020	2019 - 2020
94.	Mr.K.Pazhanivel	Research application in artificial intelligence and machine learning	15/06/2020- 17/06/2020	2019 - 2020
95.	Mr.N.Poongavanam	CS6701 Cryptography And Network Security	11/05/2020 - 15/05/2020	2019 - 2020
96.	Mr.A.Abulhasan	Theory of Computation	01/07/2019 - 31/12/2019	2019 - 2020
97.	Mr.K.Karthika	Theory of Computation	01/07/2019 - 31/12/2019	2019 - 2020
98.	Mrs.S.FarjanaFarvin	Deep Learning Part 1 - Online	01/07/2019 - 31/12/2019	2019 - 2020
99.	Mrs.P.Immaculate Rexi Jenifer	Deep Learning Part 1 - Online	01/07/2019 - 31/12/2019	2019 - 2020
100.	Mrs.S.FarjanaFarvin	An Introduction to Artificial Intelligence	01/01/2020 - 31/03/2020	2019 - 2020
101.	Mrs.P.Immaculate Rexi Jenifer	Computer Networks and Internet Protocol	01/01/2020 - 31/03/2020	2019 - 2020
102.	Mrs.K.Karthika	Computer Networks and Internet Protocol	01/01/2020 - 31/03/2020	2019 - 2020
103.	Mrs. P.Elakkiya	Problem Solving through Programming in C	01/01/2020 - 31/03/2020	2019 - 2020
104.	Mr.P.Dinesh	IT6601-Mobile Computing	03/12/2018- 14/12/2018	2018 - 2019

Table B.5.6.2 List of Faculty as participants in faculty development/training activities/STTPs

Faculty Interaction with outside world

Dr.T.Vigneswari has contributed as a Reviewer in

- AICTE sponsored international conference BGS institute of Technology ICRACET-23 during 23-24 November 2023.
- IEEE sponsored international conference ICDCOT-2024 15th & 16th March, 2024 SJB institute of Technology, Bengaluru





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Dr.T.Vigneswari has acted as Mentor in Professional Readiness for Innovation, Employability and Entrepreneurship program on Emerging technology



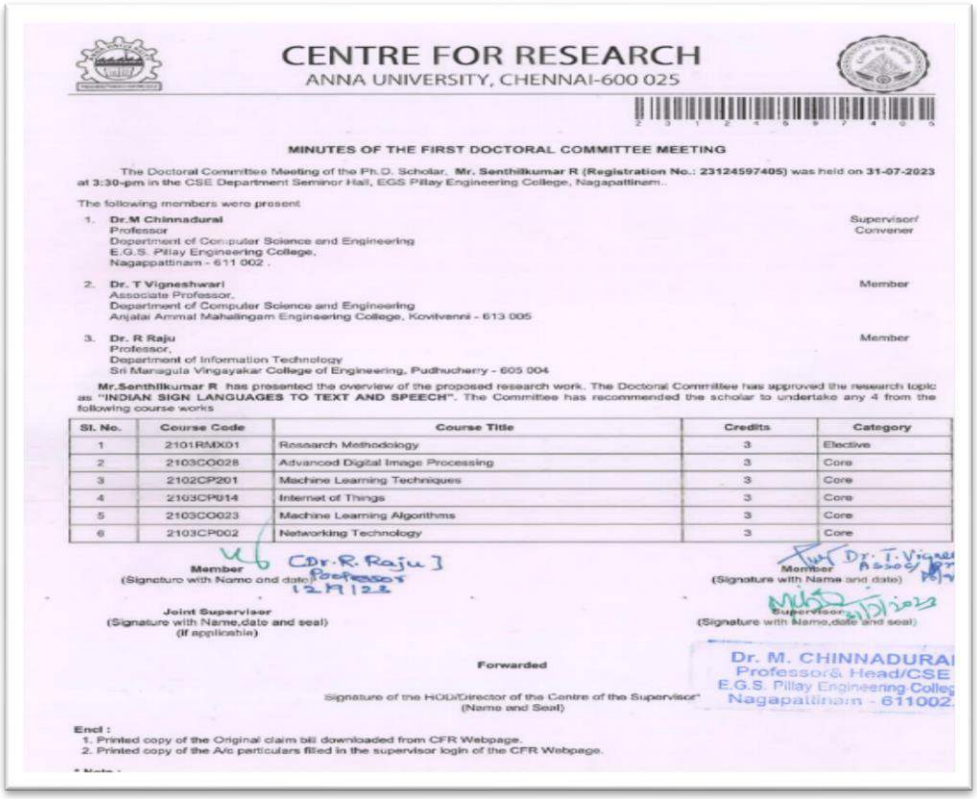
This is to certify that

Dr.VigneswariT

Mentoring in Professional Readiness for Innovation, Employability and Entrepreneurship program on Emerging technology (Artificial Intelligence, Applied Data Science, Data Analytics, Internet of Things, Cloud App development)

February 22, 2024

Dr.T.Vigneswari acts as DC Member for candidate Mr. R. Senthilkumar under Supervisor Dr.M. Chinnadurai, EGS.Pillay Engineeering College.



CENTRE FOR RESEARCH
ANNA UNIVERSITY, CHENNAI-600 025

MINUTES OF THE FIRST DOCTORAL COMMITTEE MEETING

The Doctoral Committee Meeting of the Ph.D. Scholar, **Mr. Senthilkumar R (Registration No.: 23124597405)** was held on **31-07-2023** at **3:30-pm** in the CSE Department Seminor Hall, EGS Pillay Engineering College, Nagapattinam.

The following members were present

1. **Dr.M Chinnadurai** — Professor, Department of Computer Science and Engineering, E.G.S. Pillay Engineering College, Nagappattinam - 611 002. — Supervisor/ Convener
2. **Dr. T Vigneshwari** — Associate Professor, Department of Computer Science and Engineering, Anjalai Ammal Mahalingam Engineering College, Kovilvenni - 613 005 — Member
3. **Dr. R Raju** — Professor, Department of Information Technology, Sri Manakula Vinayakar College of Engineering, Pudhucherry - 605 004 — Member

Mr.Senthilkumar R has presented the overview of the proposed research work. The Doctoral Committee has approved the research topic as **"INDIAN SIGN LANGUAGES TO TEXT AND SPEECH"**. The Committee has recommended the scholar to undertake any 4 from the following course works

Sl. No.	Course Code	Course Title	Credits	Category
1	2101RMX01	Research Methodology	3	Elective
2	2103CO028	Advanced Digital Image Processing	3	Core
3	2102CP201	Machine Learning Techniques	3	Core
4	2103CP014	Internet of Things	3	Core
5	2103CO023	Machine Learning Algorithms	3	Core
6	2103CP002	Networking Technology	3	Core

Member (Signature with Name and date) Dr. R. Raju Professor 12/9/23

Member (Signature with Name and date)

Joint Supervisor (Signature with Name,date and seal) (If applicable)

Supervisor (Signature with Name,date and seal) Dr. M. CHINNADURAI Professor& Head/CSE E.G.S. Pillay Engineering Colleg Nagapattinam - 611002.

Forwarded

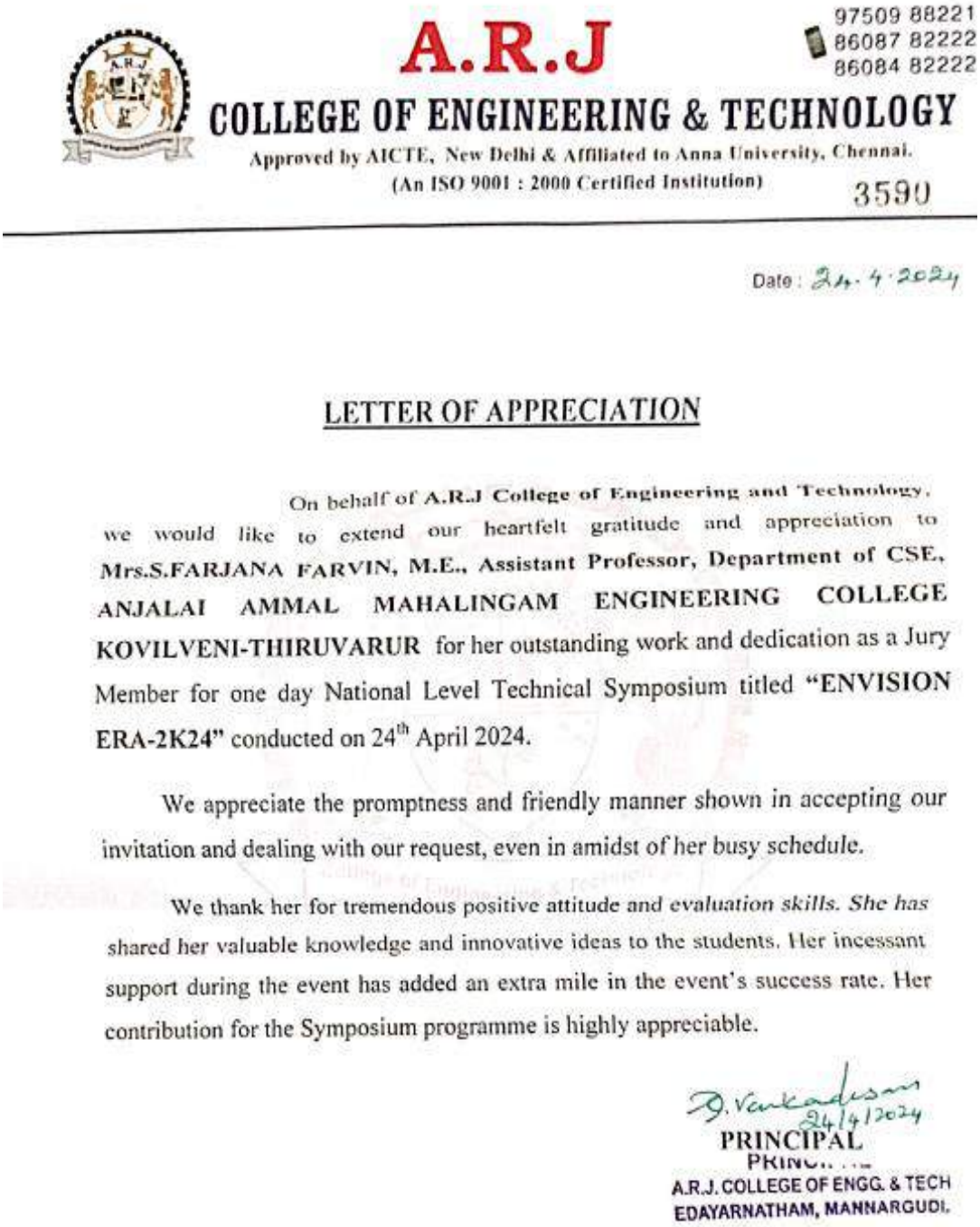
Signature of the HOD/Director of the Centre of the Supervisor (Name and Seal)

Encl :
1. Printed copy of the Original claim bill downloaded from CFR Webpage.
2. Printed copy of the A/c particulars filled in the supervisor login of the CFR Webpage.

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Mrs.S.FarjanaFarvin acted as Jury Member for one day National Level Technical Symposium titled Envsion ERA-2K24 on 24.04.2024, organized by, the Department of Computer Science and Engineering, A.R.J College of Engineering and Technology, Edaiyarnatham, Tamilnadu.



A.R.J

97509 88221
86087 82222
86084 82222

COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.
(An ISO 9001 : 2000 Certified Institution)

3590

Date : 24.4.2024

LETTER OF APPRECIATION

On behalf of A.R.J College of Engineering and Technology, we would like to extend our heartfelt gratitude and appreciation to Mrs.S.FARJANA FARVIN, M.E., Assistant Professor, Department of CSE, ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE KOVILVENI-THIRUVARUR for her outstanding work and dedication as a Jury Member for one day National Level Technical Symposium titled "ENVISION ERA-2K24" conducted on 24th April 2024.

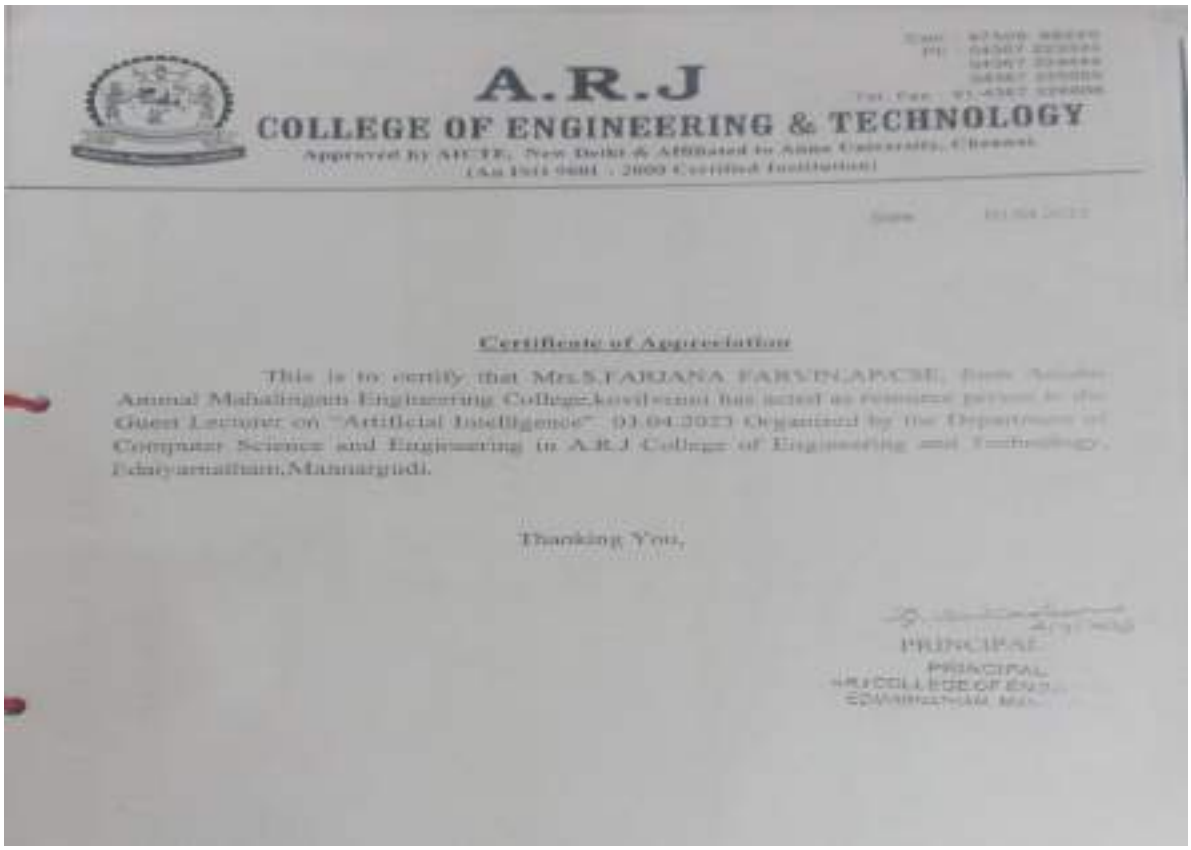
We appreciate the promptness and friendly manner shown in accepting our invitation and dealing with our request, even in amidst of her busy schedule.

We thank her for tremendous positive attitude and evaluation skills. She has shared her valuable knowledge and innovative ideas to the students. Her incessant support during the event has added an extra mile in the event's success rate. Her contribution for the Symposium programme is highly appreciable.

D. Varkadesan
24/4/2024
PRINCIPAL
PRINCIPAL
A.R.J. COLLEGE OF ENGG. & TECH
EDAYARNATHAM, MANNARGUDI.

Mrs.S.FarjanaFarvin delivered a guest lecture on Artificial Intelligence on 03.04.2023, organized by the Department of Computer Science and Engineering, A.R.J College of Engineering and Technology, Edaiyarnatham, Tamilnadu.





A.R.J

COLLEGE OF ENGINEERING & TECHNOLOGY

Certificate of Appreciation

This is to certify that Mrs.S.FARJANA FARVIN,AP/CSE, from Arulmigu Annual Mahalingam Engineering College,Kovilvenni has acted as resource person in the Guest Lecture on "Artificial Intelligence" 03.04.2023 Organized by the Department of Computer Science and Engineering in A.R.J College of Engineering and Technology, Edayarnatham,Mannargudi.

Thanking You,

PRINCIPAL

PRINCIPAL
A.R.J COLLEGE OF ENG...
EDAYARNATHAM, MAN...

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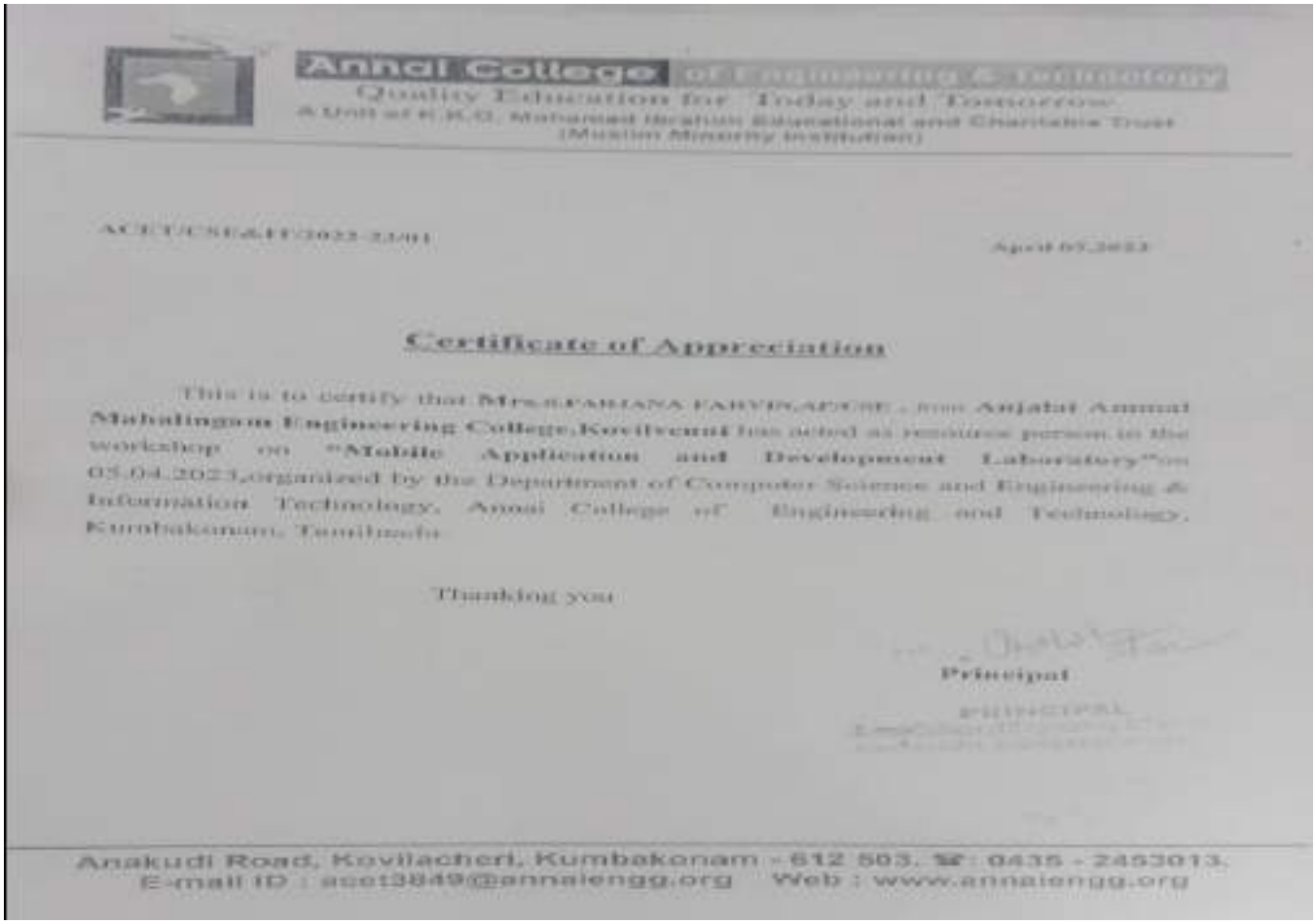
Mrs.S.FarjanaFarvin conducted a work shop on Mobile Application Development Laboratory on 05.04.2023, organized by the Department of Computer Science and Engineering & Information Technology, Annai College of Engineering & Technology, Kumbakonam, and Tamilnadu.





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Annai College of Engineering & Technology
Quality Education for Today and Tomorrow
A Unit of K.S.K. Mohammed Ibrahim Educational and Charitable Trust
(Muslim Minority Institution)

ACET/CSE(AI)/2022-23/01 April 05,2023

Certificate of Appreciation

This is to certify that Mrs.S.FARHANA FARVIN,AP/CSE , from Anjalai Ammal Mahalingam Engineering College,Kovilvenni has acted as resource person in the workshop on "Mobile Application and Development Laboratory"on 03.04.2023,organized by the Department of Computer Science and Engineering & Information Technology, Annai College of Engineering and Technology, Kumbakonam, Tamilnadu.

Thanking you

Principal

Anakudi Road, Kovilacheri, Kumbakonam - 612 503. ☎: 0435 - 2453013.
E-mail ID : acet3849@annaiengg.org Web : www.annaiengg.org

Mrs.S.FarjanaFarvin presented a webinar on Introduction to Deep Learning on03.05.2023, organized by NDLI Club, Anjalai Ammal Mahalingam Engineering College, Kovilvenni, Tamilnadu.



Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

Dr.T.Vigneswari has contributed as a Reviewer 2nd International Conference on Advanced Network Technologies and Intelligent Computing (ANTIC-2022) during 22-24 December 2022


ANTIC 2022

2nd International Conference on Advanced Network Technologies and Intelligent Computing (ANTIC-2022)

22-24 December, 2022

Organized By:

Department of Computer Science, Institute of Science, Banaras Hindu University, Varanasi, India

CERTIFICATE OF APPRECIATION

This certificate is proudly presented to

Prof./Dr./Mr./Ms. T.Vigneswari

for the tremendous effort and contribution as

Reviewer

in the 2nd International Conference on Advanced Network Technologies and Intelligent Computing (ANTIC-2022) organized by Department of Computer Science, Institute of Science, Banaras Hindu University, Varanasi, India in hybrid mode during December 22-24, 2022.

Prof. Vivek Kumar Singh
Head of The Department
Dept. of CS, BHU Varanasi

Dr. Anshul Verma
Convener, ANTIC-2022
Dept. of CS, BHU Varanasi

Dr.K.Velmurugan has acted as External Examiner for the Viva voce Examination at PRIST University, Thanjavur, Tamilnadu


PRIST UNIVERSITY

CONFIDENTIAL

FROM
Dr.A.SOBNA CHANDRA PACKIANATHY.,
M.Sc.,M.Phil.,Ph.D.,

To
Dr.VELMURUGAN.P.S.,
Professor, ECE/CSE,
Aalim Annal Muhaiyaddeen Engineering College,
Kolkrumal(A)4.003,
Tamilnadu.

Ref No.: PRIST/Dean(R&I)/Ph.D/Viva/Ex. Ext/Order/Apr'2021/02 Date: 16.04.2021

Respected Professor,

Greetings!

I have the honour of appointing you as External Examiner for conducting the Ph.D., Viva voce Examination of candidate Ms.ANBA (Reg.No : 12212709), CSE, PRIST Deemed to be University on 21.04.2021 (Wednesday) at 2.30 P.M.

We are forwarding herewith the Ph.D. Evaluation Reports of Foreign Examiner, Indian Examiner and Guide/ Supervisor for the Candidate Ms.ANBA (Reg.No : 12212709), CSE.

Thanking you,*

Yours Sincerely,

Dean (Research)

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

Dr.T.Vigneswari has acted as a Primary Evaluator in Toycathon 2021



NPTEL Courses Details

Sl.No	Name of the Faculty	Course Name	Duration	Certificate
1.	G.Kalaiselvi	Python for Data Science	Jul-Aug 2023	Elite
2.	S.Farjana Farvin	Python for Data Science	Jul-Aug 2023	Elite+Silver
3.	S.Farjana Farvin	Deep Learning	Jul-Oct 2023	Elite
4.	S.Farjana Farvin	Introduction to Machine Leaning	Jul-Sep 2023	Elite
5.	S.Farjana Farvin	Natural Language Processing	Jul-Oct 2023	Successfully Completed
6.	S.Farjana Farvin	Computer Vision	Jul-Oct 2023	Successfully Completed
7.	Mrs.S.Farjana Farvin	Data Analyctics using Python	Jan-Apr 2023	Elite
8.	Mrs.S.Farjana Farvin	Introduction to Machine Learning(Tamil)	July-Dec 2022	Elite
9.	Dr.J.Ganesh	Programming in Java	Jan-April 2022	Elite +Silver

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

10.	Mrs.S.FarjanaFarvin	Programming in Java	Jan-April 2022	Elite +Silver
11.	Mrs. P.Elakkiya	Problem Solving through Programming in C	Jan-April 2020	Modified Pass Certificate
12.	Mrs.K.Karthika	Computer Networks and Internet Protocols	Jan-April 2020	Modified Pass Certificate
13.	Mrs.P.Immaculate Rexi Jenifer	Computer Networks and Internet Protocols	Jan-April 2020	Modified Pass Certificate
14.	Mrs.S.FarjanaFarvin	An Introduction to Artificial Intelligence	Jan-April 2020	Modified Pass Certificate
15.	Mrs.G. Kalaiselvi	Problem Solving through Programming in C	Jan-April 2020	Modified Pass Certificate
16.	Mrs.S.FarjanaFarvin	Deep Learning Part 1 - Online	Jul-Dec 2019	Elite + Silver
17.	Mrs.P.Immaculate Rexi Jenifer	Deep Learning Part 1 - Online	Jul-Dec 2019	Successfully Completed
18.	Mr.A.Abulhasan	Theory of Computation	Jul-Dec 2019	Successfully Completed
19.	Mrs.K.Karthika	Theory of Computation	Jul-Dec 2019	Successfully Completed

Table B.5.6.3 List of Faculty members completed NPTEL courses

Mrs.S.FarjanaFarvin has acquired the following certificate of appreciation from NPTEL during Jul-Dec 2023







5.7. Research and Development(30)

5.7.1. Academic Research(10)

Details of Ph.D Guidance

Sl.No	Faculty name	Research Scholar Name	University	Ph.D. Guidance	Number of quality publications in refereed /S CI Journals, citations, Books/ Book Chapters
1.	Dr.K.Velmurugan	Mr.R.Senthil	Annamalai University	Co-Guide	1
2.	Dr.K.Velmurugan	Mr.R.Rajaraman	AMITY University	Co-Guide	-
3.	Dr.T.Vigneswari	Mr. R.Senthilkumar	Anna University	DC Member	-
4.	Dr.T.Vigneswari	Recognized as guide under Pondicherry University			

Table B.5.7.1.1 Details of Ph.D Guidance

Faculty Pursuing Ph.D

Sl.No	Faculty name	Research Topic	University	Guide	Date of registration	Number of quality publications in refereed /SCI Journals, citations, Books/ Book Chapters
1	Mr.N.Poongavanam	Wireless Sensor Network	Pondicherry University	Dr.Latha Parthiban	20/08/2014	3
2	Mrs.S.Farjana Farvin	Deep Learning	Anna University	Dr.S.Krishna Mohan	08/06/2018	2-Journal 2-Taylor & Francis book chapter 2-Patent 1 –IEEE Int.Conf
3	Mrs.P.Immaculate Rexi Jenifer	Deep Learning	Anna University	Dr.S.Kannan	19/06/2019	1
4	Mrs.G.Kalaiselvi	Wireless Sensor Networks & Machine Learning	Anna University	Dr.M.G.Kavitha	18/06/2019	1-Journal 1 Springer book chapter 2-Taylor & Francis book 2-Patent 1 –IEEE Int.Conf
5	Mr.P.Manikanda Prabu	Wireless Sensor Networks	Anna University	Dr. V .R. Sarma Dhulipala	22/10/2021	1

Table B.5.7.1.2 Faculty Pursuing Ph.D

Ph.D. awarded during the assessment period while working in the institute

Sl.No	Faculty name	Research Topic	Guide	Date of Completion	Number of quality publications in refereed /S CI Journals, citations, Books/ Book Chapters
1.	Mrs.P.Immaculate Rexi Jenifer	Deep Learning	Dr.S.Kannan	14/07/2023	2
2.	Dr.J.Ganesh	Wireless Sensor Networks	Dr. V R Sarma Dhulipala	15/03/2022	3
3.	Dr.S.Jagadeesan	Mobile Ad-hoc Network	Dr.V Parthasarathy	04/07/2019	3
List of Publications					
1.	P. Immaculate Rexi Jenifer, S. Kannan:Deep Learning with Optimal Hierarchical Spiking Neural Network for Medical Image Classification. Comput. Syst. Sci. Eng. 44(2): 1081-1097 (2023)				
2.	An Efficient Ranking Model for Multiuser Social Media applications using Customized Page Rank Method 2314 Turkish Online Journal of Qualitative Inquiry (TOJQI) Volume 12, Issue 3, June 2021: 2314-2326				
3.	Deepan, P., Sudha, L. R., Kalaivani, K., & Ganesh, J. (2022). Scene Classification of Remotely Sensed Images using Optimized RSISC-16 Net Deep Convolutional Neural Network Model. EAI Endorsed Transactions on Scalable Information Systems, e38-e38.				
4.	J., G., Dhulipala, V.R.S. (2020). Optimum Energy Based Routing Protocols for Wireless Sensor Network: A Short Review and Analysis. In: Hemanth, D., Shakya, S., Baig, Z. (eds) Intelligent Data Communication Technologies and Internet of Things. ICICI 2019. Lecture Notes on Data Engineering and Communications Technologies, vol 38. Springer, Cham. https://doi.org/10.1007/978-3-030-34080-3_43				
5.	Jayaraman, G., Dhulipala, V.R.S. FEECS: Fuzzy-Based Energy-Efficient Cluster Head Selection Algorithm for Lifetime Enhancement of Wireless Sensor Networks. Arab J Sci Eng 47, 1631–1641 (2022). https://doi.org/10.1007/s13369-021-06030-7				
6.	Jagadeesan, S & Parthasarathy V 2018, 'Design and implement a cross layer verification framework (CLVF) for detecting and preventing blackhole and wormhole attack in wireless ad-hoc networks for cloud environment', SPRINGER Cluster Computing Vol 1, pp299-310. Impact factor: 2.040				
7.	Jagadeesan, S & Parthasarathy V 2018, 'An Innovative approach for Detecting and Avoiding Black hole attack using Modified Secure Triangular Encryption System(MSTES) in Wireless Ad-hoc Networks', International Journal of Pure and Applied Mathematics,vol.118, no. 20, pp.2651-2663.				
8.	Jagadeesan, S & Parthasarathy V 2018, 'An Efficient Multi Stage Security Model Based On Cross Layer Mechanism For Identifying And Preventing Black Hole Attack In Wireless Ad-Hoc Networks, International Journal of Engineering & Technology(UAE),vol.7,no. 2, pp. 212-218.				

Table B.5.7.1.2 Ph.D. awarded during the assessment period while working in the institute.

List of Patent Publications

Sl.No	Name of the Faculty	Patent Title	Jurisdiction
1.	Dr.T.Vigneswari Dr.K.Velmurugan Dr. G.Nanthakumar R. Arunachalam G.Kalaiselvi Farjana Farvin Sahapudeen S.Seran S.Sanjay R.Sakthiyaseelan R.Sivasankaran	Precision Care Navigator: Predictive Analytics for Patient-Centered Healthcare (PCN-Patch)	Application Number: 202441035678 Date of filing 06/05/2024
2.	Dr.T.Vigneswari Farjana Farvin Sahapudeen G.Kalaiselvi V.Abinaya R.Devadharshini S.Preethi	Blockchain Enhanced Detection of Fake Social Media Profiles and Messages	Application Number: 202441034175 Date of filing 30/04/2024 Date of publication:10/05/2024
3.	Dr.T.Vigneswari Dr.K.Velmurugan Dr.G.Nanthakumar Mrs.S.FarjanaFarvin Mrs.G.Kalaiselvi Mr.R.Arunachalam	Livestock Health Diagnosis Using Cloud -ITT and Machine Learning Algorithm	The Patent Office Journal 20341008041/12/2023 Dated 24/03/2023

List of Conference Publications

- T. Vigneswari, F. F. Sahapudeen, S. Geetha, C. Punitha Devi and G. Kalaiselvi, "Synergizing Enhanced Neuro-Fuzzy System for Predictive Livestock Healthcare in Cloud IoT Environment," 2024 11th International Conference on Computing for Sustainable Global Development (INDIACom), New Delhi, India, 2024, pp. 171-177, doi: 10.23919/INDIACom61295.2024.10498653. IEEE Conference ID:61295

List of Journal Publications

Sl.No	Name of the Faculty	Title	Name of the Journal	Year of Publication	Total Number of Publications
1.	Dr.K.Velmurugan	Precision Care Navigator: Predictive Analytics for Patient-Centered Healthcare (PCN-Patch)	Indian Patent Publication	2024	4
		Chatbot for Mental Health Treatment	International Journal of Advanced Research In Science,Communication and Technology		
		Satellite Imagery System for Pruning Vegetation Interference in Power Transmission Lines	International Journal of Advanced Research In Science,Communication and Technology		
		Kidney Disease Prediction With Encrypted Data Sharing In Health Care	International Journal of Advanced Research In Science,Communication and Technology		
2.	Dr.G.Nanthakumar	Iot Based Smart Irrigation System Using Artificial Intelligence	International Journal of Advanced Research In Science,Communication and Technology	2024	4
		Precision Care Navigator: Predictive Analytics for Patient-Centered Healthcare (PCN-Patch)	Indian Patent Publication		
		IOT Based Real-Time Street Light Fault Detection and Maintenance System with Machine Learning Driven Solution Prediction	International Journal of Advanced Research In Science,Communication and Technology		
		Government schemes Chabot using machine learning and deep learning techniques	International Journal of Advanced Research In Science,Communication and Technology		

3.	Dr.T.Vigneswari	Blockchain Enhanced Detection of Fake Social Media Profiles and Messages	Indian Patent Publication	2024	5
		Precision Care Navigator: Predictive Analytics for Patient-Centered Healthcare (PCN-Patch)	Indian Patent Publication		
		Deep Learning Approaches for IoMT.	Data Modelling and Analytics for the Internet of Medical Things. CRC Press,		
		Blockchain for Handling Medical Data.	Data Modelling and Analytics for the Internet of Medical Things. CRC Press,		
		Develop image processing software using machine learning to identify medicinal plants, aiding authenticity and supply chain integrity.	International Journal Of Advanced Research In Science,Communication And Technology		
4.	Mr.R.Arunachalam	Precision Care Navigator: Predictive Analytics for Patient-Centered Healthcare (PCN-Patch)	Indian Patent Publication	2024	3
		A Smart Solution For Minimizing Urban Food Wastage And Alleviating Hunger	International Journal Of Advanced Research In Science,Communication And Technology		
		Indigenous Heritage Hub	International Journal Of Advanced Research In Science,Communication And Technology		
5.	Mr.K.ManikandaPrabu	Career guidance using machine learning	International Journal Of Advanced Research In Science,Communication And Technology	2024	2
		Zerohunger link : bridging food waste and hunger gaps-an integrated approach	International Journal Of Advanced Research In Science,Communication And Technology		

6.	Mrs.K.Karthika	Medicinal Plant Identification Using Machine Learning	International Journal Of Advanced Research In Science,Communication And Technology	2024	2
		AI - nutrition analyzer for fitness	International Journal Of Advanced Research In Science,Communication And Technology		
7.	Mr.K.Pazhanivel	Eduplay - interactive game based learning platform	International Journal Of Advanced Research In Science,Communication And Technology	2024	2
		A Smart Food Donation System Using Mobile Technology To Reduce Food Waste	International Journal Of Advanced Research In Science,Communication And Technology		
8.	Mr.P.Dinesh	Interactive AI Chatbot For Mental Illness	International Journal Of Advanced Research In Science,Communication And Technology	2024	1
9.	Mrs.G.Kalaiselvi	Precision Care Navigator: Predictive Analytics for Patient-Centered Healthcare (PCN-Patch)	Indian Patent Publication	2024	5
		Blockchain Enhanced Detection of Fake Social Media Profiles and Messages	Indian Patent Publication		
		Blockchain for Handling Medical Data.	Data Modelling and Analytics for the Internet of Medical Things. CRC Press,		
		CitizenConnectBot(CCB): The Interactive Guide To Government Schemes	International Journal of Science and Research Archive		
		FarmTechBot (FTB): Empowering farmers for better harvest.	International Journal of Science and Research Archive		

10.	Mrs.S.FarjanaFarvin	Evolutionary U-Net for lung cancer segmentation on medical images	Journal of Intelligent & Fuzzy Systems	2024	5
		Precision Care Navigator: Predictive Analytics for Patient-Centered Healthcare (PCN-Patch)	Indian Patent Publication		
		Blockchain Enhanced Detection of Fake Social Media Profiles and Messages	Indian Patent Publication		
		Deep Learning Approaches for IoMT.	Data Modelling and Analytics for the Internet of Medical Things. CRC Press,		
		Blockchain for Handling Medical Data.	Data Modelling and Analytics for the Internet of Medical Things. CRC Press,		
11.	Mrs.K.Nithiya	Crop recommendation system using machine learning	International Journal Of Advanced Research In Science, Communication And Technology	2024	2
		Personalized Nutrition Analyzer Using Artificial Intelligence	International Journal Of Advanced Research In Science, Communication And Technology		
12.	Mrs.P.Elakkiya	Fitnourish: smart nutrition tracker for fitness enthusiasts	International Journal Of Advanced Research In Science, Communication And Technology	2024	2
		Anti-Semitic Speech Detection And Classification In Online Social Network Using Deep Learning	International Journal Of Advanced Research In Science, Communication And Technology		
13.	Mr.G.Rajaraman	Awareness about the agriculture needs through interactive web application for farmers	International Journal Of Advanced Research In Science, Communication And	2024	1

			Technology		
14.	Mrs.J B Pradeepa	E-Commerce Site For Artisans	International Journal Of Advanced Research In Science, Communication And Technology	2024	1
15.	Dr.K.Velmurugan	Develop the hybrid adadelta Stochastics gradient classifier with optimized feature selection Algorithm to predict the heart Disease at earlier stage	Measurement: Sensor	2023	4
		Data Driven Analysis of Insurance Claim using Machine Learning Algorithm	International Journal of Advanced Research in Science, Communication and Technology		
		Cryptocurrency price Predictor using machine Learning, performance Tracker and data Visualization	Arabian Journal for Science and Engineering (AJSE)		
		Robust Image Forgery Detection Over Online Social Network Shared Images	International Journal of Advanced Research in Science, Communication and Technology		
16.	Dr.G.Nanthakumar	Improved User Authenticated Key Management Scheme for 6G Based Industrial Applications	International Journal of Advanced Research in Science, Communication and Technology	2023	2
		Drone-Assisted Secure Healthcare with AI/ML Algorithm and Big Data Analytics for 6g Wireless Communication in the Future	International Journal of Advanced Research in Science, Communication and Technology		

17.	Dr.T.Vigneswari	Revolutionizing Land Ownership Records: A Secure and Transparent Block chain-Based Land Registration System.	Gradiva Review Journal	2023	4
		A Brief Literature Review On Deep Learning-Based Approaches For Animal Detection In Precision Agriculture	Gradiva Review Journal		
		Stroke Prediction And Classifation Using Machine Learning	Gradiva Review Journal		
		Enhancing Crop Yield with Animal Detection in Agricultural Land Using Convolutional Neural Network and Sound-Based Scare Tactics	International Journal of Advanced Research in Science, Communication and Technology		
18.	Mr.R.Arunachalam	Automated Detection of Diabetic Retinopathy from the Funds Photography using Deep Learning Method	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2023	3
		Road Accident Severity Prediction Using Machine Learning	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
		Predicting the Price of Bitcoin using LSTM Recurrent Neural Network	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
19.	Mr.K.ManikandaPrabu	Hand Gesture Recognition for Virtual Mouse and Keyboard :A Novel Human-Computer Interaction Approach.	International Journal of Advanced Research in Science, Communication and Technology	2023	3
		Detection Of Melanoma (Skin Cancer) Using Convolutional Neural	International Journal of Advanced Research in Science,		

		Network	Communication and Technology		
		Fraudulent Banking Transaction Classification Using Deep Learning Algorithm	International Journal of Advanced Research in Science, Communication and Technology		
20.	Mrs.K.Karthika	Subjective Answer Evaluation Using Machine Learning and Natural Language Processing	International Journal of Multidisciplinary Research Transactions	2023	2
		Data Poison Detection Using Machine Learning	International Journal of Advanced Research in Science, Communication and Technology		
21.	Mr.K.Pazhanivel	Air Quality Prediction Based on Machine Learning	International Journal of Advanced Research in Science, Communication and Technology	2023	2
		Diagonosis of Heart Disease Using Machine Learning Algorithms	International Journal of Advanced Research in Science, Communication and Technology		
22.	Mr.P.Dinesh	Potential market Predictive Features based bitcoin Price Prediction using Machine Learning Algorithms	Computer Vision and Image Processing in Deep Learning Era	2023	1
23.	Mrs.P.Immaculate Rexi Jenifer	Deep Learning with Optimal Hierarchical Spiking Neural Network for Medical Image Classification	Computer Systems: Science & Engineering	2023	3
		Secureab - Automatic Banking System Using Block chain	International Journal of Advanced Research in Science, Communication and Technology		

		Crop Prediction and Crop Quantity Suggestion based on the Characteristics of Agricultural Environment using Machine Learning Techniques	International Journal of Multidisciplinary Research Transactions		
24.	Mrs.G.Kalaiselvi	A Survey of Ant Colony Optimization Based Algorithms for Efficient Routing in Mobile Ad-Hoc Networks	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2023	3
		Raven: NFT Based Land Record System Using Block chain	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
		Victual Analysis and Sustenance Support Using Deep Learning (Mask R-CNN)	Gradiva Review Journal		
25.	Mrs.S.FarjanaFarvin	U-Medchain A Block Chain Based System For Medical Records Access And Permissions Management	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2023	2
		Efficient Brain Tumor Segmentation using U-Net Architecture	Gradiva Review Journal		
26.	Mrs.S.Grace Mary	A New Light Weight Symmetric Key Encryption Scheme For String Identification	International Journal of Advanced Research in Science, Communication and Technology	2023	2
		Phishing Website Detection using Machine Learning Rules with Cryptography Technique	International Journal of Advanced Research in Science, Communication and Technology		
27.	Mrs.K.Nithiya	Network Intrusion Prediction Using Machine Learning	International Journal of Advanced Research in Science, Communication and	2023	1

			Technology		
28.	Dr.K.Velmurugan	Security with Block chain for electronic health record management system(DECOY – CLOUD system)	International Journal of Advanced Research In Science, Communication And Technology(IJARSCT)	2022	3
		Stock market prediction using machine learning	International Journal of Advanced Research In Science, Communication And Technology(IJARSCT)		
		Pocket Certificate Using Double Encryption by combined Cryptography	International Journal of Advanced Research In Science, Communication And Technology(IJARSCT)		
29.	Dr.G.Nanthakumar	Browser based malicious domain detection through extreme learning machine algorithm	International Journal of Advanced Research In Science, Communication And Technology(IJARSCT)	2022	4
		Analyze and prediction of Bit coin price using Machine learning	International Journal of Advanced Research In Science, Communication And Technology(IJARSCT)		
		Block chain Enabled Healthcare Secure Data Storage System	International Journal of Advanced Research In Science, Communication And Technology(IJARSCT)		
		AI-powered smart glasses for the blind and visually impaired	International Journal of Advanced Research In Science, Communication And Technology(IJARSCT)		
30.	Mr.R.Arunachalam	Secure Vehicular Ad Hoc Network Communication using Block Chain	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	3

		Integrity Auditing for Multi-Copy in Cloud Storage Based on Red-Black Tree	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
		COVID-19 Future Forecasting using Machine Learning Model	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
31.	Mr.K.ManikandaPrabu	The web attack detection system for Internet of Things via ensemble classification	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	3
		Fire detection using video processing based on computer vision	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
		Real Time Crash prediction using machine learning algorithm	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
32.	Mrs.K.Karthika	Multiple coal classification using deep learning techniques	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	2
		Individual Re-identification in Blurred image using SVM/ PCA technique	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
33.	Mr.K.Pazhanivel	A deep learning approach for robust detection of BOTS in twitter using transformers model	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	3
		Analyze and Prediction of Bit coin price using Machine Learning	International Journal of Advanced Research in Science,		

			Communication and Technology (IJARSCT)		
		AI based Self learning Intelligent Information Leak protection system for IT Companies using BLSTM	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
34.	Mr.P.Dinesh	A Cloud Secure Storage Mechanism Based On Data Dispersion And Encryption	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	1
35.	Mrs.P.Immaculate Rexi Jenifer	Course and Programme Outcomes Attainment Calculation of Under Graduate Level Engineering Programme Using Deep Learning	Advances in Intelligent Systems and Computing	2022	3
		Spam detection technique using machine learning with principle component analysis	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
		Brain Tumor detection using machine learning Algorithm	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
36.	Mrs.G.Kalaiselvi	An Effective Cloud Broker Framework for knowledge Discovery in Multi Cloud Environment	Book Chapter: EAI/Springer Innovations in Communication and Computing	2022	3
		Enhancing the learning experience of students by early prediction of student academic performance using machine learning	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)		
		A Framework of Non-Fungible Token Marketplace using Block chain Technology	International Journal of Advanced Research in Science, Communication and		

			Technology (IJARSCT)		
37.	Mrs.S.Farjana Farvin	Road Lane Detection using convolutional neural network	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	4
		Fake news detection using machine learning classification models	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	
		Automatic Detection of the Coronavirus Disease From CT Images Using an Convolution Neural Network	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	
		Opinion Mining on Twitter data using machine learning: A case study	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	
38.	Ms.P.Elakkiya	Image secret sharing using IWT Algorithm	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	2
		Self Learning Conversational AI Chabot using natural language processing	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	
39.	Dr J.Ganesh	Palm vein authentication system with secure banking system	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	2
		A Secure Decentralized cloud storage framework using block chain technology	International Journal of Advanced Research in Science, Communication and		

			Technology (IJARSCT)		
40.	Dr.K.Velmurugan	Predictive Data Analytics for Covid-19 Using Python	International Journal of All Research Education & Scientific Methods	2021	1
41.	Mr.K.Pazhanivel	Intelligent Compression Scheme for Securing Storage Preservation in Virtualized Hybrid Cloud	ECS Transactions	2021	1
42.	Mrs.P.Immaculate Rexi Jenifer	An Efficient Ranking Model for Multiuser Social Media applications using Customized Page Rank Method	Turkish Online Journal of Qualitative Inquiry	2021	3
		Cooperative spectrum sharing and maximization of throughput using cognitive radio.	International Journal of Scientific & Engineering Research	2021	
		Image Formation Based On Transfer Learning Using CNN	International Journal of Engineering Technology Research & Management	2021	
43.	Mrs.G.Kalaiselvi	An Effective Cloud Broker Framework for knowledge Discovery in Multi Cloud Environment	Book Chapter: EAI/Springer Innovations in Communication and Computing	2021	3
		Real Time Face Mask Detection For Covid-19 Pandemic Using Supervised Learning Of Convolutional Neural Network	International Journal of Research Publication and Reviews	2021	
		Automated Interpersonal Distance Detection To Prevent The Risk Of Covid-19 Using Machine Learning	International Journal of Research Publication and Reviews	2021	
44.	Dr.T.Vigneswari	Non-Invasive Health Monitoring: An Overview of Existing Scenario.	Turkish Journal of Computer and Mathematics Education	2021	5

			(TURCOMAT)		
		Dwell Time Management using Machine Learning in Airport.	Annals of the Romanian Society for Cell Biology		
		Early Prediction Of Cervical Cancer Using Machine Learning Techniques	Turkish Journal of Physiotherapy and Rehabilitation		
		A Survey on Extended Reality Trends And Different Frameworks Used For Augmented Reality Gaming.	Turkish Journal of Physiotherapy and Rehabilitation		
		Smart IOT Cloud Based Livestock Monitoring System: A Survey.	Turkish Journal of Computer and Mathematics Education		
45.	Mrs.K.Karthika	A Novel Block chain Based Model Providing Quality Verification For Cloud Providers	International Research Journal of Modernization in Engineering Technology and Science(Journal)	2021	1
46.	Mr.P.Dinesh	Dynamically Partitionable Multiple Superscalar Core Pipeline for High Instruction per Clock	International Journal of Research Publication and Reviews	2021	1
47.	Mr.P.Manikandaprabu	Block chain inspired IOT based information architecture for medicine logistics	International Research Journal of Modernization in Engineering Technology and Science	2021	1
48.	Dr.K.Velmurugan	A Big Data Analytics Literature Survey Using Machine Learning Algorithms.	International Journal of Computer science and Software Engineering	2020	1
49.	Dr.T.Vigneswari	A Study Of Various Attack Detection Methods For Secure Transactions	Parishodh Journal	2020	7
		Stress Detection Using Social Interactions	Parishodh Journal		

		Dwell Time Management using Machine Learning & Raspberry Pi	Aut Aut Research Journal,		
		A Detailed Survey of Cervical Cancer Using Classification and Segmentation Techniques	Journal of Interdisciplinary Cycle Research		
		A survey on Online Transaction fraud detection	Aut Research Journal		
		Integrated Health And Ambient Assisted Living For Alzheimer Disease Patients	Parishodh Journal		
		Integration of Block chain and IoT in supply chain : A Discussion and its methodologies	Parishodh Journal		
50.	Mr.P.Manikanda Prabu	Cognitive Radio-Based IoMT with Wireless Energy Harvesting for Secure Transmissions	Annals of R.S.C.B	2020	1
51.	Mr.P.Dinesh	Cognitive Radio-Based IoMT with Wireless Energy Harvesting for Secure Transmissions	Annals of R.S.C.B	2020	1
37.	Mr.N.Poongavanam	K-coverage m-connected node placement using Shuffled Frog Leaping Nelder-Mead algorithm in WSN	International Journal of Ambient Intelligence and Humanized Computing	2020	1
38.	Dr.K.Velmurugan	Automated Vehicle: Autonomous Driving using SVM Algorithm in Supervised Learning	International Journal of Engineering Research & Technology (IJERT)	2019	1
39.	Dr.T.Vigneswari	Image Enhancing Methods-An Overview.	International Journal of Scientific & Engineering Research	2019	4
		A Survey On Sign Language Recognition Using Combinational Features	IJRAR - International Journal of Research and Analytical Reviews (IJRAR)		

		A Survey on Machine Learning and Statistical Methods for Bankruptcy Prediction	International Journal of Computer Sciences and Engineering		
		Survey of Deep Learning Applications to Annotation Image Analysis	International Journal of Computer Sciences and Engineering		

Table B.5.7.1.3 List of Publications

Google Scholar Profile Page

https://scholar.google.com/citations?user=UrzgHowAAAAJ&hl=en&oi=ao

10/05/2024, 15:05 VELMURUGAN K - Google Scholar



VELMURUGAN K

PROFESSOR, ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE

SOFTWARE ENGINEERING
WEB SERVICES

	All	Since 2019
Citations	19	12
h-index	3	2
I10-index	0	0

TITLE	CITED BY	YEAR
An empirical performance metrics measurement and analysis of software platforms for implementation of web services K Velmurugan, MAM Mohamed 2009 Eighth IEEE/ACIS International Conference on Computer and Information ...	6	2009
Develop the hybrid Adadelta Stochastic Gradient Classifier with optimized feature selection algorithm to predict the heart disease at earlier stage R Senthil, B Narayanan, K Velmurugan Measurement: Sensors 25, 100602	5	2023
A big data analytics literature survey using machine learning algorithms S Raman, B Narayanan, K Velmurugan International Journal of Computer Science and Software Engineering 9 (7), 39-42	3	2020
A study of network traffic pattern and its impact on performance in implementation of web services K Velmurugan, M Mohamed American Journal of Engineering and Applied Sciences 5 (1)	3	2012
A Model driven Approach for Migrating from Legacy Software Systems to Web Services K Velmurugan, M Mohamed Jan	1	2012
An Effortless Approach for Migrating from Legacy Software Systems to Web Services K Velmurugan, MAM Mohamed Information Systems Reengineering for Modern Business Systems: ERP, Supply ...	1	2012
Empirical Performance Metrics Study of Execution of Database Queries in Implementation of Web Services K Velmurugan, MAM Mohamed Journal of Computer Science 8 (8), 1346		2012
Empirical Study on Performance Metrics of Software Deployed for Implementation of Web Services K Velmurugan, MAM Mohamed European Journal of Scientific Research 83 (2), 173-189		2012

https://scholar.google.com/citations?user=TFS-Z54AAAAJ&hl=en



Dr G.NANTHAKUMAR

Professor,Computer Science and Engineering, Department of Computer Science and Engineering ,Anjalai

Wiresless Networks
Mobile Computing
Computer Networks
Compiler deisgn

	All	Since 2019
Citations	9	5
h-index	2	2
I10-index	0	0

TITLE	CITED BY	YEAR
An efficient combined call admission control and scheduling algorithm to improve quality of service for multimedia services over next generation wireless networks GN Kumar, A Arokiasamy Journal of Computer Science 11 (2), 416	5	2015
Developing an ARM based GNU/Linux Operating System for Single Board Computer–Cubietruck SP Kumar, G Pradeep, GN Kumar, CD Devi International Journal of Engineering and Technology (IJET) 6 (6), 2579-2586	2	2015
Performance improvement of robust call admission control algorithm for QoS support over future generation wireless heterogeneous networks GN Kumar, A Arokiasamy Journal of Theoretical and Applied Information Technology 62 (3)	2	2014

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

https://scholar.google.com/citations?user=GXyUO10AAAAJ&hl=en

10/05/2024, 14:50 vigneswari T - Google Scholar



vigneswari T

Anjalai Ammal Mahalingam Engineering College

Distributed system
IoT

	All	Since 2019
Citations	36	26
h-index	3	2
I10-index	1	1

TITLE	CITED BY	YEAR
Smart IoT cloud based livestock monitoring system: A survey T Vigneswari Turkish Journal of Computer and Mathematics Education (TURCOMAT) 12 (10 ...	12	2021
Scheduling in sensor grid middleware for telemedicine using ABC algorithm T Vigneswari, MAM Mohamed International Journal of Telemedicine and Applications 2014, 18-18	5	2015
Smart livestock management using cloud IoT T Vigneswari, N Vijaya Cloud IoT Systems for Smart Agricultural Engineering, 55-74	4	2022
Optimal Grid Scheduling Using Improved Artificial Bee Colony Algorithm T Vigneswari, MM Mohamed International Journal of Computer and Information Engineering 8 (11), 2070-2076	3	2015
A survey of study on WBAN architecture for biomedical and scientific applications VAA Swetha, T Vigneswari IOSR Journal of Engineering 8 (12), 72-80	2	2018
Scheduling in mobile grid for telemedicine application using improved ABC algorithm T Vigneswari, MAM Mohamed 2016 International Conference on Emerging Trends in Engineering, Technology ...	2	2016
Performance analysis of initialization methods for optimizing artificial bee colony grid scheduling T Vigneswari, MAM Mohamed Proceedings of the International Conference on Parallel and Distributed ...	2	2014
Sensor grid architecture for health care monitoring MAM Mohamed, T Vigneswari Proceedings of the 99th Indian Science Congress 3, 7	2	2012
Research Issues and Solutions in Agro-IoT N Vijaya, T Vigneswari Cloud IoT Systems for Smart Agricultural Engineering, 209-222	1	2022
Early prediction of cervical cancer using machine learning techniques T Vigneswari, N Vijaya, N Kalaiselvi Turkish J. Physiotherapy Rehabil 32 (3), 262-269	1	2021
A review on dimension based parking system G Shanmugasundaram, T Vigneswari, R Abinaya, M Monisha	1	2019

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

5.7.2. Sponsored Research(5)

Funded research:

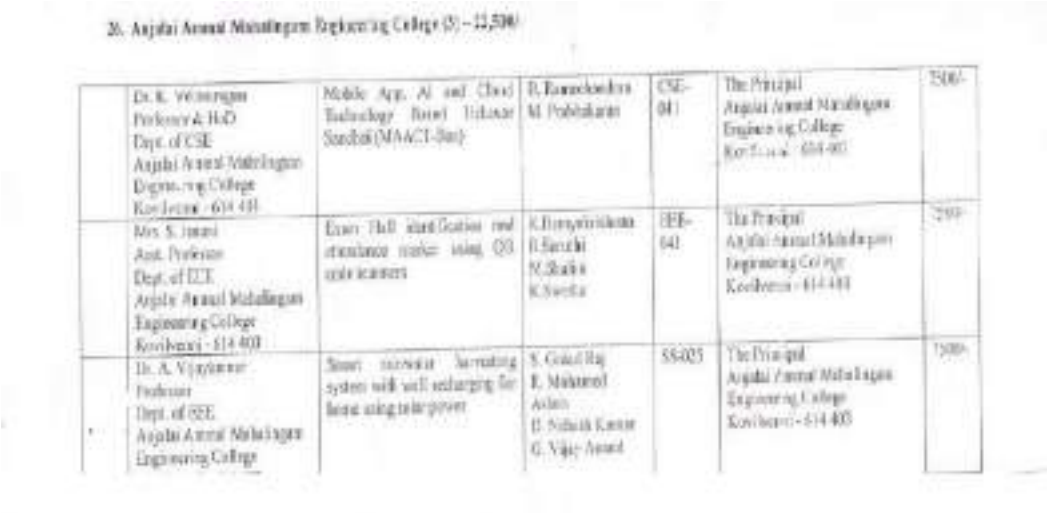
The following projects has been done under **TNSDC – Naan Mudhalvan Anna University - Niral Thiruvizha (Hackathon).**

Sl.No	Title of the project	Register Number	Name of the Student	Project Guide	Fund sanctioned
1.	Awakening the Agriculture Needs Through Web Application	820420104045	R.RagulKulothungan	Mr.G.Rajaraman Assistant Professor , Department of Computer Science and Engineering	10,000
		820420104057	S.Sarukesh		
		820420104076	K.Varun		
2.	Analytic Tool For Healthcare Data Of Patients In Hospitals	820420104055	Sakthiyaseelan.R	Dr. T. Vigneswari Associate Professor Department of Computer Science and Engineering	10,000
		820420104056	Sanjay.S		
		820420104059	Seran.S		
		820420104306	Sivasankaran R		

The following project has been done under Tamilnadu State Council for Science and Technology scheme

Sl.No	Title of the project	Register Number	Name of the Student	Project Guide	Fund sanctioned
1.	Mobile Application and cloud technology based Uzhavarsandhai (MAACT-BUS)	820416104052	M.Prabhakaran B.Ramachandran S.Suriya P.Manibharathi	Dr.K.Velmurugan Professor&HoD, Departmentt of Computer Science and Engineering	Rs.7500/-
		820416104057			
		820416104077			
		820416104304			

Table B.5.7.2.1 Funded Research Details



Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

5.7.3. Development activities (10)

Product Development

Sl.No	Register number	Name of the Student	Batch	Product Developed	Year
1.	820419104085	Vinothkumar M	2019-2023	Software for conducting online symposium	2021
2.	820419104085	Vinothkumar M	2019-2023	Software for Internal Assessment	2021
3.	820415104035	Muthu Manickam C	2015-2019	Software for Department Library	2019
4.	820415104072	Surya S	2015-2019		
5.	820414104043	Muthu Kumaran S	2014-2018	Created website for College EDC Cell	2018

Table B.5.7.3.1 Product Development details

Sl.No	Register number	Name of the Student	Mobile Application Developed	Launch Screen Image
1.	820419104075	Sudharsan S	Travel agency	
2.	820419104085	Vinothkumar M	Goals App	
			Expense Tracker	

			Guess my number	
			Eseva App	

BOSON LABS Future Leaders Program (FLP) is a smart alternative route for students who want to start their career and learn from industry experts before graduating from college. FLP provides an extraordinary insight into the cutting edge IT trends IoT, DApps, Digital Marketing, WordPress and block chain. It's a 12 month program with the following phases and may get extended based on the work allocation timelines

- PHASE 1: Online Training (Internship)
- PHASE 2: Proof of Concept Lab Exercise (Probation)
- PHASE 3: Apprenticeship (Real-Time Project)

Boson Labs will pay a monthly incentive package ranging anywhere from Rs.3000 to Rs.10000 during the real-time project assignment based on their performance during Phase 2 and Phase 3.

Sl.No	Title of the project	Current Year	Register Number	Name of the Student	Current Employment
1.	Yet to be assigned	IV Year (2020-2024)	820420104061	Shwetha A	Final year Student
2.	Solidity Training	2019-2023	820419104039	V.Nandhini	Block chain Programmer / Block chain Coder/ Block chain Consultant
			820419104046	R.Nithyashree	
			820419104075	S.Sudharsan	
3.	Algorand Training	2019-2023	820419104021	R.Divyasree	
			820419104048	S.Peararulselvi	
4.	Monitor Alerting Hub	2018-2022	820418104033	S.Kiruthika	Block chain Developer (from 01.05.2022)
			820418104035	R.Madhubala	
			820418104038	S.Maheswari	
			820418104049	A.Parvatha sri	

5.	Flipping a coin using hash function	2018-2022	820418104033	S.Kiruthika	Block chain Developer (from 01.05.2022)
			820418104035	R.Madhubala	
			820418104038	S.Maheswari	
			820418104049	A.Parvatha sri	
6.	ASA bidding application using pyteal	2018-2022	820418104033	S.Kiruthika	Block chain Developer (from 01.05.2022)
			820418104035	R.Madhubala	
			820418104038	S.Maheswari	
			820418104049	A.Parvatha sri	
7.	Mobile Application and cloud technology based Uzhavarsandhai (MAACT-BUS)	2016-2020	820416104052	M.Prabhakaran	BOSON LABS
			820416104057	B.Ramachandran	BOSON LABS
			820416104077	S.Suriya	Mumbai Metro Rail Projects, ALSTOM factory Sricity,Tada
			820416104304	P.Manibharath	Verticurl Marketing Pvt Ltd,Coimbatore

Table B.5.7.3.2 BOSAN Lab- Product Development details

BOSON LABS

Date: 29-03-2023

Dear Ms. Shwetha A

We are pleased to extend the offer of employment with BOSON Labs. This letter, if executed and returned by you, will confirm the terms and conditions of your work with BOSON Labs, as follows:

1) Employment

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you full-time in the **Blockchain R&D division**, and based on your training status, you will be assigned any one of the following roles

A) Blockchain Programmer
B) Blockchain Coder
C) Blockchain Consultant / Scientist

You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position you are employed in and as may be assigned to you from time to time by BOSON Labs. You agree to begin employment with the BOSON Labs on **Jun 1, 2024** (the "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

2) Compensation and Benefits

a) Compensation (CTC: 4 lakhs to 6 lakhs per annum depends on your training performance / completion).

The package structure includes four components

1. Base salary
2. Performance Bonus
3. Monthly Allowances
4. Profit-Sharing Incentives

Other Allowances: Laptop, Mobile, Internet Access, Crypto Utility Bonus.

BOSON LABS

Date: 27-Apr-2022

Dear Ms. Madhubala. R

We are pleased to offer you employment with BOSON Labs. This letter, if executed and returned by you, will confirm the significant terms and conditions of your work with BOSON Labs, as follows:

1) Employment.

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you as a **Blockchain developer**, and you hereby accept such employment, according to the terms and conditions outlined in this letter.

You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager of the Company as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position in which you are employed and as may be assigned to you from time to time by BOSON Labs. You hereby agree to begin employment with the BOSON Labs on **May 1, 2022** (the "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

2) Compensation and Benefits.

a) Compensation (CTC : 4 lakhs to 6.5 lakhs per annum)

The package structure includes three components

1. You will be paid a base salary at an annual rate of **Three Lakhs (Rs. 3,00,000)** after completing training and probation.
2. You will be paid up to **50% of the annual salary as a bonus** based on your performance after completing the 1st year.
3. If the product meets the stakeholder expectation and delivered on time as expected, a portion of reserved team utility tokens based on the contribution will be awarded to the development team as incentives (ranges from **25,000 to 2 lakh** per developer)

Other Allowances : Laptop, Mobile, Internet Access, Crypto Utility Bonus, Medical Reimbursement and Performance Incentives

computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

BOSON LABS

Date: 17-Dec-2021

Dear Ms. Kiruthika S

We are pleased to offer you employment with BOSON Labs. This letter, if executed and returned by you, will confirm the significant terms and conditions of your work with BOSON Labs, as follows:

1) Employment.

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you as a **Blockchain developer**, and you hereby accept such employment, according to the terms and conditions outlined in this letter.

You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager of the Company as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position in which you are employed and as may be assigned to you from time to time by BOSON Labs. You hereby agree to begin employment with the BOSON Labs on **Jun 1, 2022** (the "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

2) Compensation and Benefits.

a) Compensation (CTC : 4 lakhs to 6.5 lakhs per annum)

The package structure includes three components

1. You will be paid a base salary at an annual rate of **Three Lakhs (Rs. 3,00,000)** after completing training and probation.
2. You will be paid up to **50% of the annual salary as a bonus** based on your performance after completing the 1st year.
3. If the product meets the stakeholder expectation and delivered on time as expected, a portion of reserved team utility tokens based on the contribution will be awarded to the development team as incentives (ranges from **25,000 to 2 lakh** per developer)

Other Allowances : Laptop, Mobile, Internet Access, Crypto Utility Bonus, Medical Reimbursement and Performance Incentives

BOSON LABS

Date: 27-Apr-2022

Dear Ms. Maheswari. S

We are pleased to offer you employment with BOSON Labs. This letter, if executed and returned by you, will confirm the significant terms and conditions of your work with BOSON Labs, as follows:

1) Employment.

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you as a **Blockchain developer**, and you hereby accept such employment, according to the terms and conditions outlined in this letter.

You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager of the Company as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position in which you are employed and as may be assigned to you from time to time by BOSON Labs. You hereby agree to begin employment with the BOSON Labs on **May 1, 2022** (the "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

2) Compensation and Benefits.

a) Compensation (CTC : 4 lakhs to 6.5 lakhs per annum)

The package structure includes three components

1. You will be paid a base salary at an annual rate of **Three Lakhs (Rs. 3,00,000)** after completing training and probation.
2. You will be paid up to **50% of the annual salary as a bonus** based on your performance after completing the 1st year.
3. If the product meets the stakeholder expectation and delivered on time as expected, a portion of reserved team utility tokens based on the contribution will be awarded to the development team as incentives (ranges from **25,000 to 2 lakh** per developer)

Other Allowances : Laptop, Mobile, Internet Access, Crypto Utility Bonus, Medical Reimbursement and Performance Incentives

BOSON LABS

Date: 17-Dec-2021

Dear Ms. Parvatha Sri A

We are pleased to offer you employment with BOSON Labs. This letter, if executed and returned by you, will confirm the significant terms and conditions of your work with BOSON Labs, as follows:

1) Employment.

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you as a **Blockchain developer**, and you hereby accept such employment, according to the terms and conditions outlined in this letter.

You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager of the Company as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position in which you are employed and as may be assigned to you from time to time by BOSON Labs. You hereby agree to begin employment with the BOSON Labs on **Jun 1, 2022** (the "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

2) Compensation and Benefits.

a) Compensation (CTC : 4 lakhs to 6.5 lakhs per annum)

The package structure includes three components

1. You will be paid a base salary at an annual rate of **Three Lakhs (Rs. 3,00,000)** after completing training and probation.
2. You will be paid up to **50% of the annual salary as a bonus** based on your performance after completing the 1st year.
3. If the product meets the stakeholder expectation and delivered on time as expected, a portion of reserved team utility tokens based on the contribution will be awarded to the development team as incentives (ranges from **25,000 to 2 lakh** per developer)

Other Allowances : Laptop, Mobile, Internet Access, Crypto Utility Bonus, Medical Reimbursement and Performance Incentives

BOSON LABS

Date: 6-Mar-2022

Dear Ms. NANDHINI V

We are pleased to extend the offer of employment with BOSON Labs. This letter, if executed and returned by you, will confirm the terms and conditions of your work with BOSON Labs, as follows:

1) Employment.

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you full-time in the **Blockchain R&D division**, and based on your training status, you will be assigned any one of the following roles

A) Blockchain Programmer
B) Blockchain Coder
C) Blockchain Consultant / Scientist

You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position you are employed in and as may be assigned to you from time to time by BOSON Labs. You agree to begin employment with the BOSON Labs on **Jun 1, 2023** (the "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

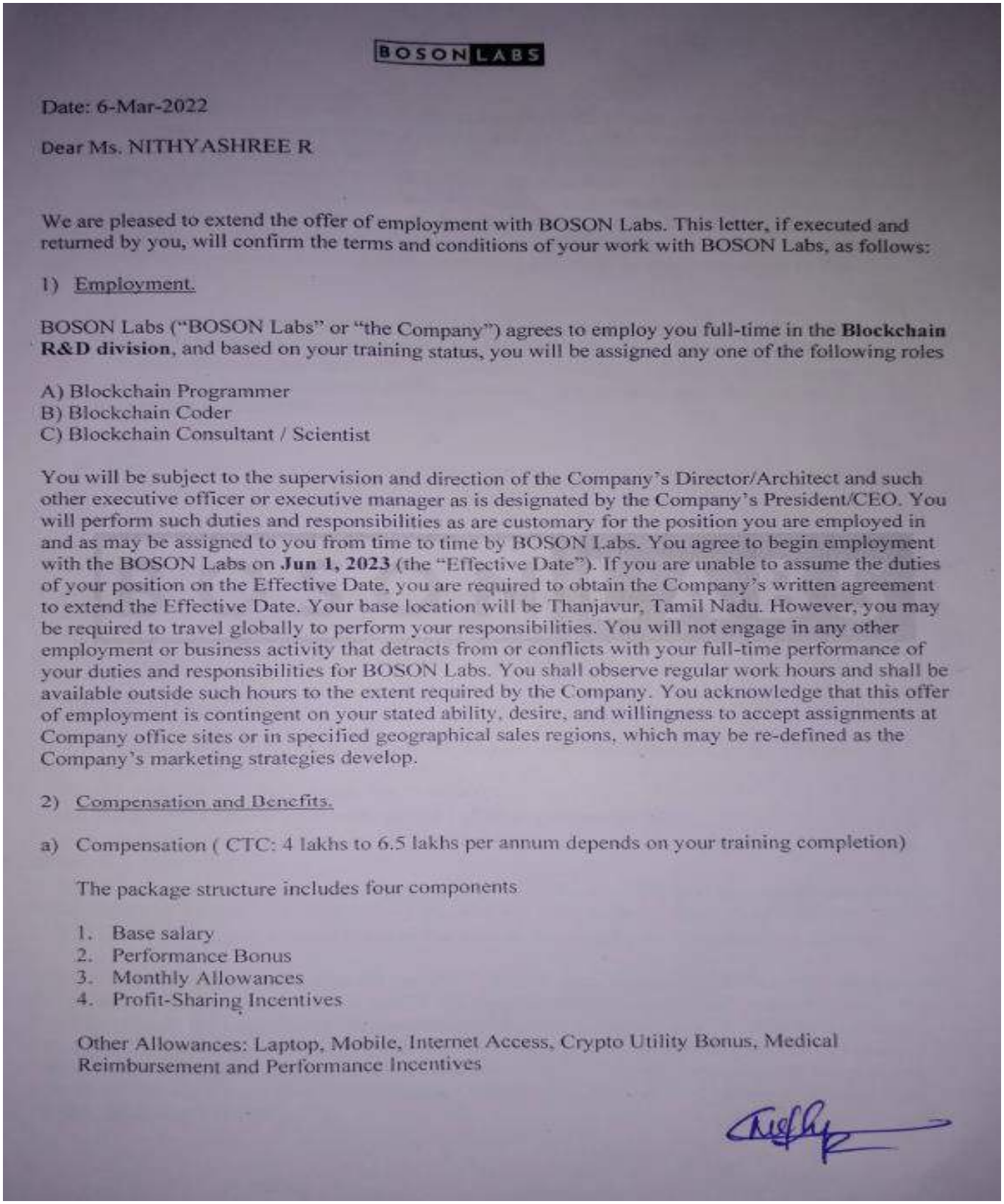
2) Compensation and Benefits.

a) Compensation (CTC: 4 lakhs to 6.5 lakhs per annum depends on your training completion)

The package structure includes four components

1. Base salary
2. Performance Bonus
3. Monthly Allowances
4. Profit-Sharing Incentives

Other Allowances: Laptop, Mobile, Internet Access, Crypto Utility Bonus, Medical Reimbursement and Performance Incentives



BOSON LABS

Date: 6-Mar-2022

Dear Ms. NITHYASHREE R

We are pleased to extend the offer of employment with BOSON Labs. This letter, if executed and returned by you, will confirm the terms and conditions of your work with BOSON Labs, as follows:

1) Employment.

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you full-time in the **Blockchain R&D division**, and based on your training status, you will be assigned any one of the following roles

A) Blockchain Programmer
B) Blockchain Coder
C) Blockchain Consultant / Scientist

You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position you are employed in and as may be assigned to you from time to time by BOSON Labs. You agree to begin employment with the BOSON Labs on **Jun 1, 2023** (the "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

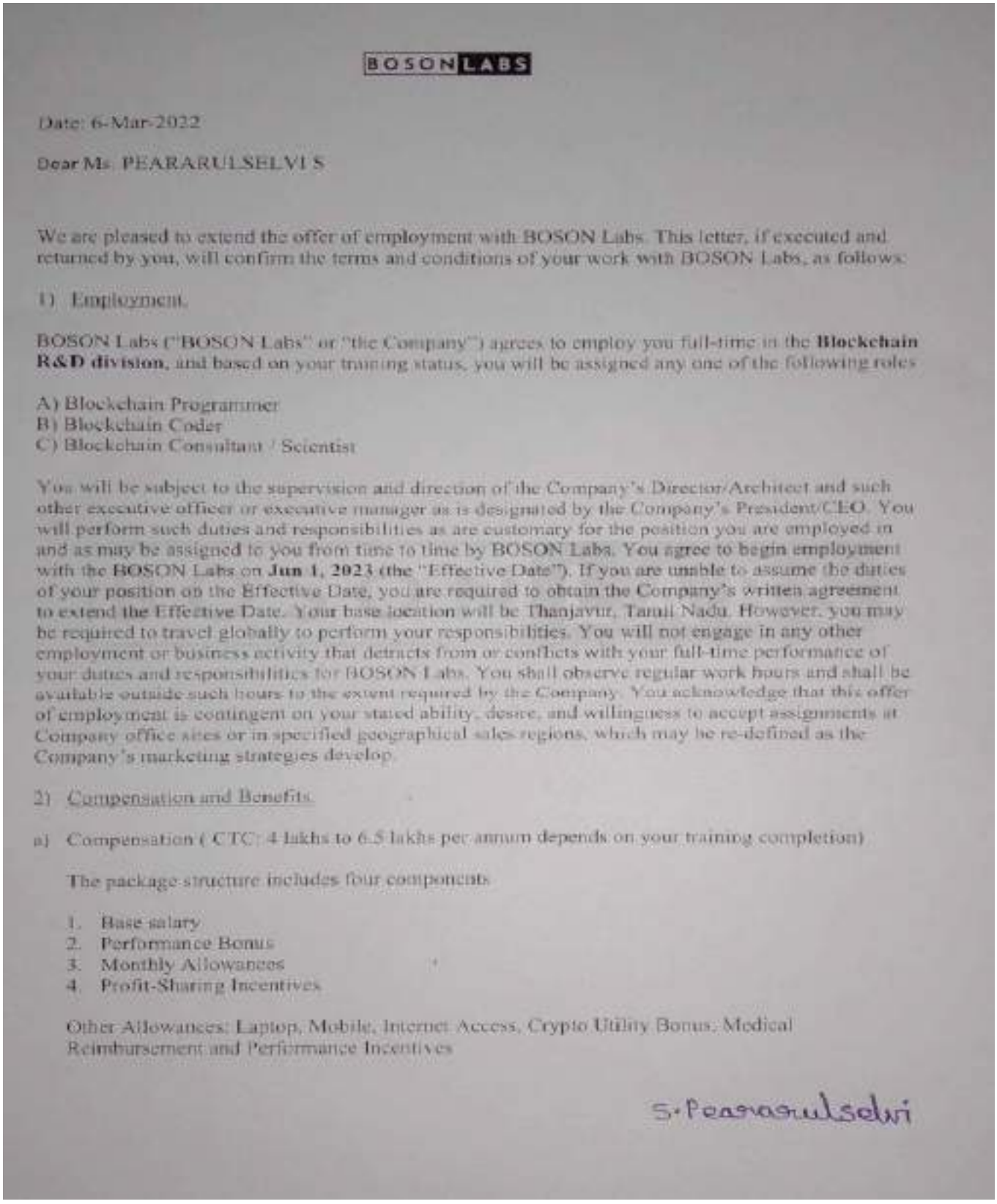
2) Compensation and Benefits.

a) Compensation (CTC: 4 lakhs to 6.5 lakhs per annum depends on your training completion)

The package structure includes four components

1. Base salary
2. Performance Bonus
3. Monthly Allowances
4. Profit-Sharing Incentives

Other Allowances: Laptop, Mobile, Internet Access, Crypto Utility Bonus, Medical Reimbursement and Performance Incentives



BOSON LABS

Date: 6-Mar-2022

Dear Ms. PEARARULSELVI S

We are pleased to extend the offer of employment with BOSON Labs. This letter, if executed and returned by you, will confirm the terms and conditions of your work with BOSON Labs, as follows:

1) Employment.

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you full-time in the **Blockchain R&D division**, and based on your training status, you will be assigned any one of the following roles

A) Blockchain Programmer
B) Blockchain Coder
C) Blockchain Consultant / Scientist

You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position you are employed in and as may be assigned to you from time to time by BOSON Labs. You agree to begin employment with the BOSON Labs on **Jun 1, 2023 (the** "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

2) Compensation and Benefits.

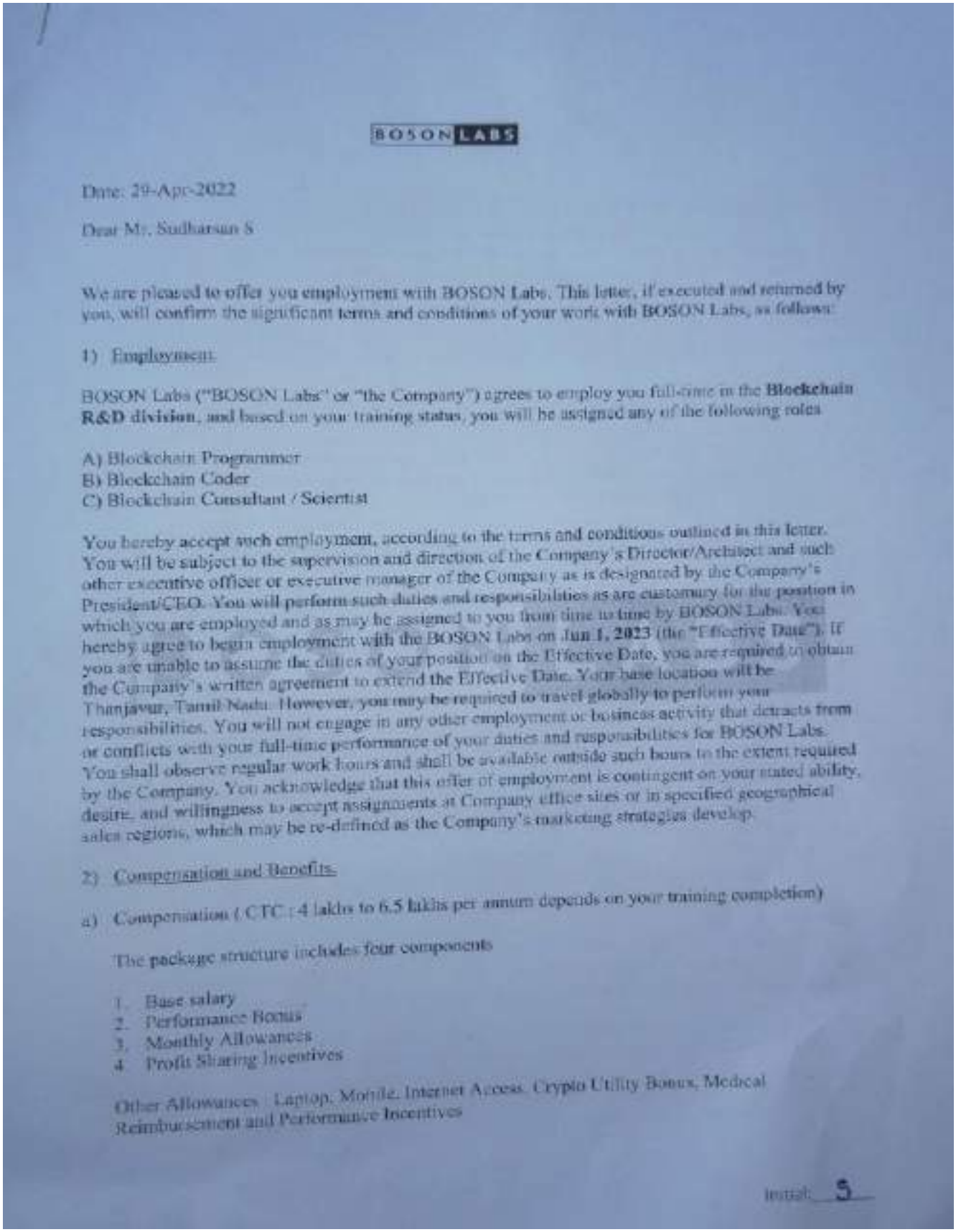
a) Compensation (CTC: 4 lakhs to 6.5 lakhs per annum depends on your training completion)

The package structure includes four components:

1. Base salary
2. Performance Bonus
3. Monthly Allowances
4. Profit-Sharing Incentives

Other Allowances: Laptop, Mobile, Internet Access, Crypto Utility Bonus, Medical Reimbursement and Performance Incentives

S.Peararulselvi



BOSON LABS

Date: 29-Apr-2022

Dear Mr. Sudharsan S

We are pleased to offer you employment with BOSON Labs. This letter, if executed and returned by you, will confirm the significant terms and conditions of your work with BOSON Labs, as follows:

1) Employment:

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you full-time in the **Blockchain R&D division**, and based on your training status, you will be assigned any of the following roles

A) Blockchain Programmer
B) Blockchain Coder
C) Blockchain Consultant / Scientist

You hereby accept such employment, according to the terms and conditions outlined in this letter. You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager of the Company as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position in which you are employed and as may be assigned to you from time to time by BOSON Labs. You hereby agree to begin employment with the BOSON Labs on **Jun 1, 2023** (the "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

2) Compensation and Benefits:

a) Compensation (CTC : 4 lakhs to 6.5 lakhs per annum depends on your training completion)

The package structure includes four components

1. Base salary
2. Performance Bonus
3. Monthly Allowances
4. Profit Sharing Incentives

Other Allowances : Laptop, Mobile, Internet Access, Crypto Utility Bonus, Medical Reimbursement and Performance Incentives

Initial: S

Research laboratories

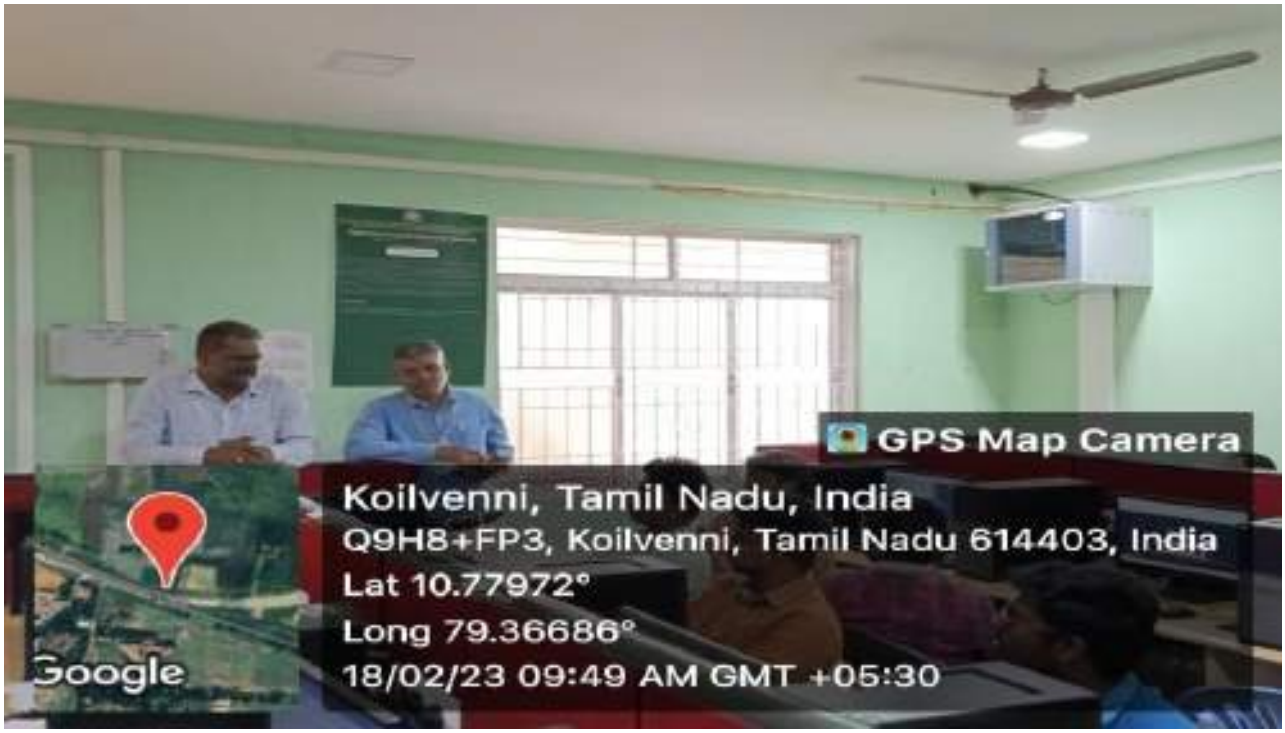
FREE OPEN SOURCE SOFTWARE LAB is used for project work purpose, the students are given freedom to download and install software required for their project. In addition the following companies utilize this lab for training the students to meet the industry needs.

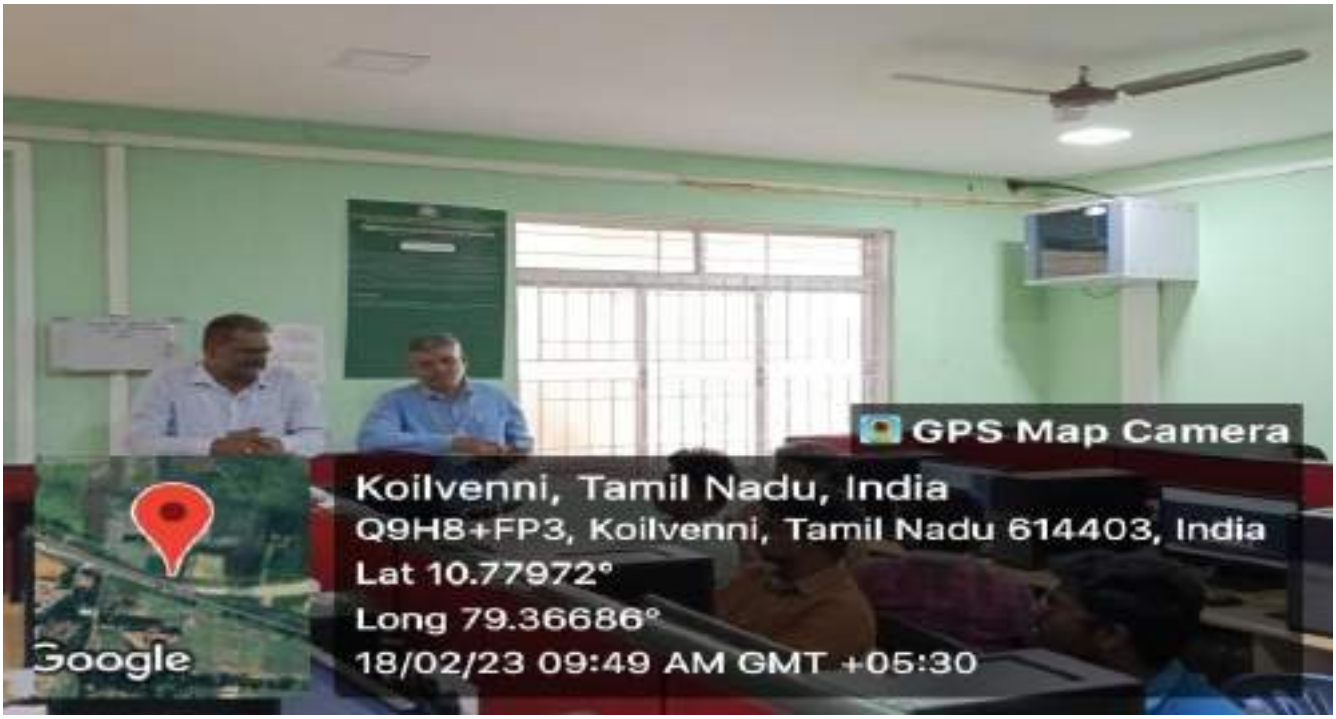
1. Vuram Technologies
2. SJK
3. BASS INFRATEL
4. Sri Sri Rural Talent Innovation Center

Training on Latest Technologies-Sri Sri Rural Talent Innovation Center

The aim of this training is to enhance the curriculum with industry relevant advanced training, improve student's creativity skills and sharing ideas. It will help to develop skills in the application of theory to practical work situations and develop skills and techniques directly applicable to their careers. The student will be able instilled with good moral values such as responsibility, commitment and trustworthy during their training.

- JAVA & SQL Programming
- Real World Projects
- Employability Skills
- Internship & Mentoring
- Placement Assistance





Vuram Technologies- Vuram Enable Uplift Program

Vuram Enable Uplift Program for the students conducted by Vuram Technologies **in FOSS LAB by industry expert Mr. Silambarasan, Vuram** Technology, and Chennai.

Students List - Vuram Enable Uplift Program

Sl. No	Name	Register Number	Current Employment
1.	Veenaa Rajagopal	820416104085	Vuram Technologies
2.	Subasri Manimaran	820416104702	Vuram Technologies
3.	Subathra S	820416104075	Vuram Technologies
4.	Priyangha Rajan	820416104055	Vuram Technologies
5.	Nithya Sri	820416104050	Vuram Technologies
6.	Abinaya V	820416104004	Vuram Technologies
7.	Abarna N	820416104002	TCS
8.	Yukesh Raaj S	820417104077	Vuram Technologies
9.	Harini S	820417104018	Vuram Technologies
10.	Nusrath Jahan A B	820417104040	Higher Studies
11.	Ragamaliga P	820417104048	Vuram Technologies
12.	A.G.sudheshna	820417104071	Vuram Technologies
13.	Divyadharani A K	820417104014	Vuram Technologies
14.	Preethi R	820417104045	Postal Department
15.	Monica T	820417104032	Vuram Technologies

5/28/22, 3:48 PM ANJALAI AMMAL MAHALINGAM ENGG COLLEGE Mail - Training Program at AAMEC | Draft to be sent

placement officer <placement@aamec.edu.in>

Training Program at AAMEC | Draft to be sent
2 messages

Shanthipriya Shantharam <shanthipriyas@vuram.com> Tue, Oct 22, 2019 at 1:32 PM
To: placement officer <placement@aamec.edu.in>

Dear Sir,

Inline with our campus hiring process for this year, we have plans to train the shortlisted students for training on certain topics that would match Vuram requirements and post training they will undergo an interview process for selection.

The shortlisting candidates generally covers the following topics we want to build over and above this.

Skills	Concepts	Subject Name	Topics in Details
Design	**Architecture**	Computer Organisation Advanced Computer Architecture Operating System Computer Organization and Architecture System Software and Principles of Compiler Design Design & Analysis of Algorithms Data Structures and Algorithms Data processing & File organization Cloud Technology	Data Structures and Algorithms Hash tables Linked lists Trees Binary search trees Directed and undirected graphs Standard template library Array Stack: LIFO (push,pop,empty,top) Queue: FIFO (push,pop,empty,top) Linear Search Binary Search Struct Cloud computing & types Virtualisation Remote PC Load balancer
Networking	**Networks/System Administration**	Computer Networks Network Theory Data Communications Neural Networks Network Security Network Forensics Network Infrastructure Management 4G Networks TCP/IP Design and Implementation	Network classification: Size (LAN,WAN & MAN) Topology(physical:Bus, Star, Ring, Mesh and ../ Logical) Management Method (Peer to Peer, Client/Server) Transmission media(Guided, Unguided) Firewall Router Gateway OSI Model, TCP, IP, UDP VPN ipconfig / ping Ip address range: 0.0.0.0 to 255.255.255.255 MAC address Subnet IPv4 What is meant by troubleshooting? Tracing? Client-Server Peer-to-peer Packet Switching List the OSI layers SSH FTP Telnet SMTP DHCP, HTTP, HTTPS Ports Wi-Fi Nslookup
Creativity Logical Thinking Programming Knowledge	**Programming Languages**	Principles of Programming Language System Programming Java and Internet Programming Software Engineering Programming paradigms Object Oriented Programming Open Source Scripting Languages Dot Net Framework Foundations of Parallel Programming	Constructors Struct Function/method Access specifiers Standard libraries Pass by reference & pass by value Initiation Declaration Variable Objects Classes Inheritance Polymorphism Memory allocation/deallocation (new) Try catch Loops
Software	**Software engineering**	Object Oriented Software Engineering User experience design OOAD	Software engineering activities/lifecycle: (Requirement gathering, Planning, Design, Development, Testing and Maintenance) Requirements (Functional, Non-functional)

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

			P&D (prototyping, modularisation, cohesion, coupling) Process model: Waterfall/linear sequential, incremental, RAD, unified, prototype, spiral, agile Process flow: linear and iterative Software metrics, Size metrics COCOMO Model(Constructive cost model) Scenario-based model Risk management Requirement Engineering: Feasibility study, Requirement analysis, Requirement definition, Requirement document Problem solving strategies UML, Entity relationship diagram
Web	**Web**	Web Technology and Web Services Web Design Web Mining Web Data Design and Management Web Engineering Web Content Management Web Security Web Development	Basics of web development knowledge Cloud Computing WWW SSL Internet DNS Sample TLD SSH Proxy Hosting Server Client Web Server vs Application Server Applications & Types: Web, Window and etc. API SOAP REST API FTP HTML, Javascript, PHP
Mobile	**Mobile**	Wireless and Mobile Networking Mobile Adhoc Networks Mobile Application Development Mobile Databases	GPS
General Knowledge	**Internet**	Basics of Internet Concepts	Internet Browsers Websites Protocols Meta data SEO DNS Captcha Bot Doodle Page Drive App URL URN WWW Client Server/Request Response Homepage Emails, CC, BCC
Optional	**Security**	Cyber Security Essentials Information Security Management	Basics of security Vulnerabilities and Cryptography Hacking Virus Anti-Virus Malware WEP WAP2 SSL Eavesdropping Firewall Information security: Confidentiality, Integrity and Availability

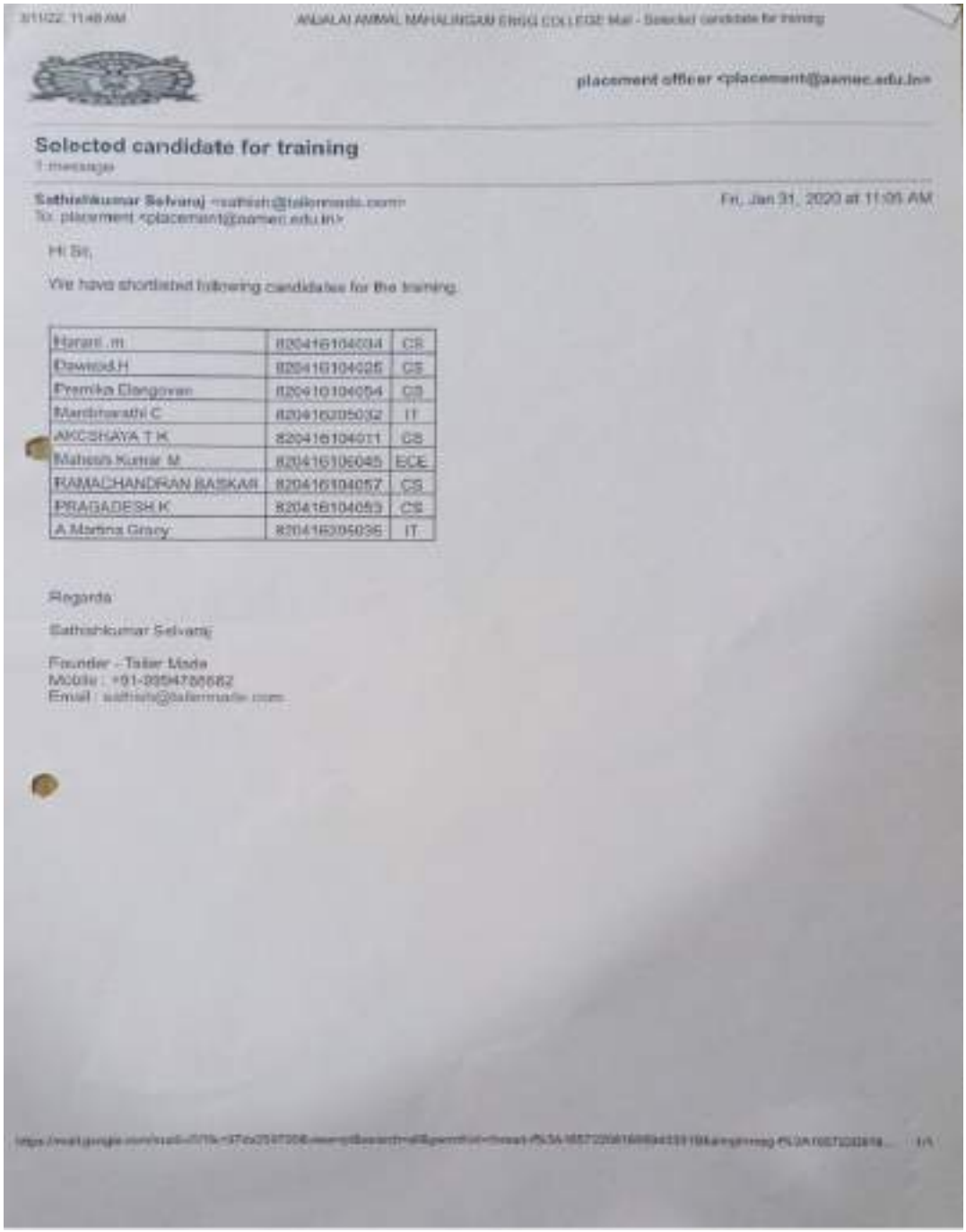
We assume the shortlisted candidate dealt these topics in greater with hands on experience. If that's not done please start coaching them on this as regular faculties will be abundantly available for these topics.

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

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SJK

1	03/02/2020	Mr.Sathish, SJK,Tech,Trichy	Technical skill training



3/11/22, 11:48 AM ANJALAI AMMAL MAHALINGAM ENGG COLLEGE Mail - Selected candidate for training

placement officer <placement@aamec.edu.in>

Selected candidate for training

1 message

Sathishkumar Selvaraj <sathish@talentmode.com> Fri, Jan 31, 2020 at 11:05 AM
To: placement <placement@aamec.edu.in>

Hi Sir,

We have shortlisted following candidates for the training

Harani .m	820416104034	CS
Dawood.H	820416104025	CS
Premika Elangovan	820410104054	CS
Manbharathi C	820416205032	IT
AKCSHAYA T K	820416104011	CS
Mahesh Kumar M	820416106045	ECE
RAMACHANDRAN BASKAR	820416104057	CS
PRAGADESH K	820416104053	CS
A Martina Gracy	820416205036	IT

Regards

Sathishkumar Selvaraj

Founder - Taler Mode
Mobile : +91-9994786682
Email : sathish@talentmode.com

https://mail.google.com/mail/u/0?ik=47ce2197b6&view=pt&search=all&permthid=thread-f%3A1657208169894339196&simpl=msg-f%3A1657208... 1/1

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

BASS INFRATEL



5/23/22, 2:17 PM ANJALAI AMMAL MAHALINGAM ENGG COLLEGE Mail - Ca

placement officer <placement@aamec.edu.in>

Ca

6 messages

Sathishkumar Selvaraj <sathish@senchola.com> Fri, Feb 7, 2020 at 3:32 PM
To: placement@aamec.edu.in

Hi Sir,

Following candidates can be selected for the next interview at Trichy

Vinothini V(IT) 820416205089
kaviya Rajendran(MCA) 820417621316
Veenaa(CS) 820416104085
Poojaa(ECE) 820416106062
indrajit(CS) 820416104036
DEVADARSINI RAMAIYAN(CS) 820416104027
abipriya.s(CS) 820416104005

Office Location:
BASS INFRATEL PRIVATE LIMITED
No 3, Mary Thozhilagam
3rd Street, Cross Street
Alpha Nagar, Karumandapam
Tiruchirappalli 620001
M: +91-9381500600

https://g.page/bassinfratel

Thanks

Sathishkumar Selvaraj

Instructional materials

Mrs.S.Farjana Farvin, Assistant Professor, is acting as the **translator** for translating the content of the courses offered by NPTEL SWAYAM. She has already translated the following course content to tamil language.

Sl.No	Course Title	No. of hours translated	Date of Certification
1.	Computational Thinking - IITM	3.5	24/01/2022
2.	Computer Vision - IIT Kharagpur	5.25	21/09/2020
3.	Natural Language Processing -IIT Kharagpur	5.5	11/09/2020

Table B.5.7.3.3 List of courses translated



NPTEL

swayam

CERTIFICATE

OF APPRECIATION

This Certificate is presented to

FARANA FARVIN S

for translating the files of the course

Natural Language Processing (106105158)

offered by **IIT Kharagpur**

in **Tamil** *language. Hours translated:* **5.5**

Date : **11/09/2020**

Andrew Thangaraj
Coordinator, NPTEL

Instructional materials

- Peer Learning
- NPTEL Lectures
- Guest lectures on Emerging Trends
- Course Study Material
- Gate Study Material

Peer Learning

Peer learning is the process of students learning with and from each other. This is usually facilitated through teaching and learning activities such as student–led workshops, study groups, peer-to-peer learning partnerships, and group work. Some benefits include, development of student collaboration and communication skills, enhancement of student confidence and the ability to take control of their own learning. Students feel more comfortable working with their peers, so may interact and engage in

reflection and explore ideas more deeply than in a teacher led environment.

S.VinothKumar (820420104081),II Year CSE giving presentation on Cryptocurrencies for the same class



S.VinothKumar (820420104080),II Year CSE handling a session on Visualization for the same class



Sample NPTEL Lecture video links for the Courses

GE3151 –Problem Solving and Python Programming

https://archive.nptel.ac.in/courses/106/106/106106182/

CS3251- Programming in c

https://archive.nptel.ac.in/courses/106/105/106105171/

CS3301-Datastructures

https://nptel.ac.in/courses/106102064

CS3451-Introduction to Operating Systems

https://nptel.ac.in/courses/106102132

https://nptel.ac.in/courses/106105214

https://nptel.ac.in/courses/106106144

CS3491-Artificial Intelligence and Machine Leaning

https://archive.nptel.ac.in/courses/106/106/106106126

https://archive.nptel.ac.in/courses/112/103/112103280

https://archive.nptel.ac.in/courses/106/106/106106236

https://archive.nptel.ac.in/courses/106/105/106105215

https://archive.nptel.ac.in/courses/106/106/106106139

https://archive.nptel.ac.in/courses/117/105/117105101

CS8075-Datawarehousing and Data mining

https://nptel.ac.in/courses/106105174

CS8492-Database Management systems

https://nptel.ac.in/courses/106/105/106105175

CS8592- Object Oriented Analysis and Design

Object Oriented System Development Using UML, Java and Patterns

https://nptel.ac.in/courses/106105224

CS8451-Design and Analysis of Algorithms

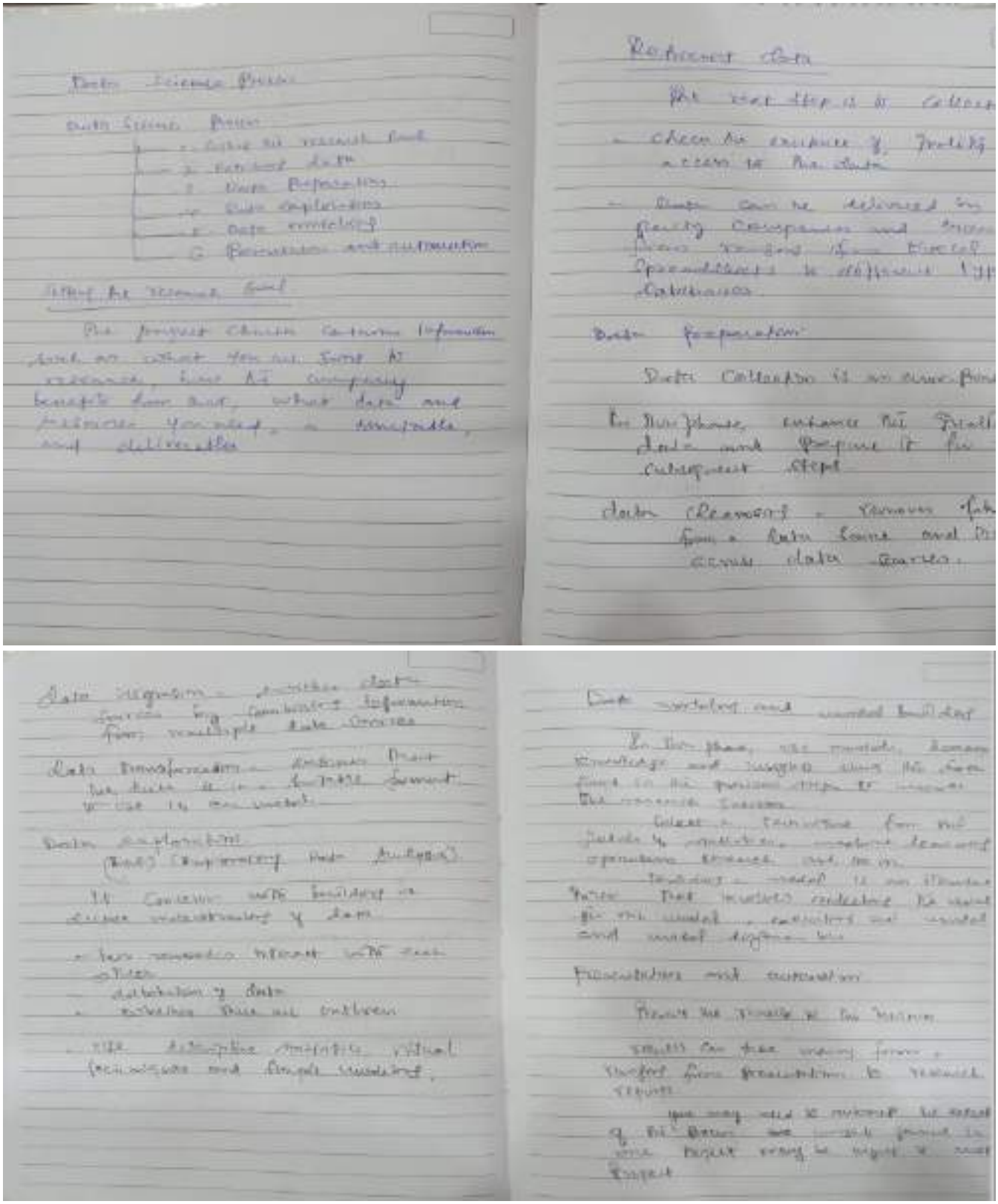
https://nptel.ac.in/courses/106106131

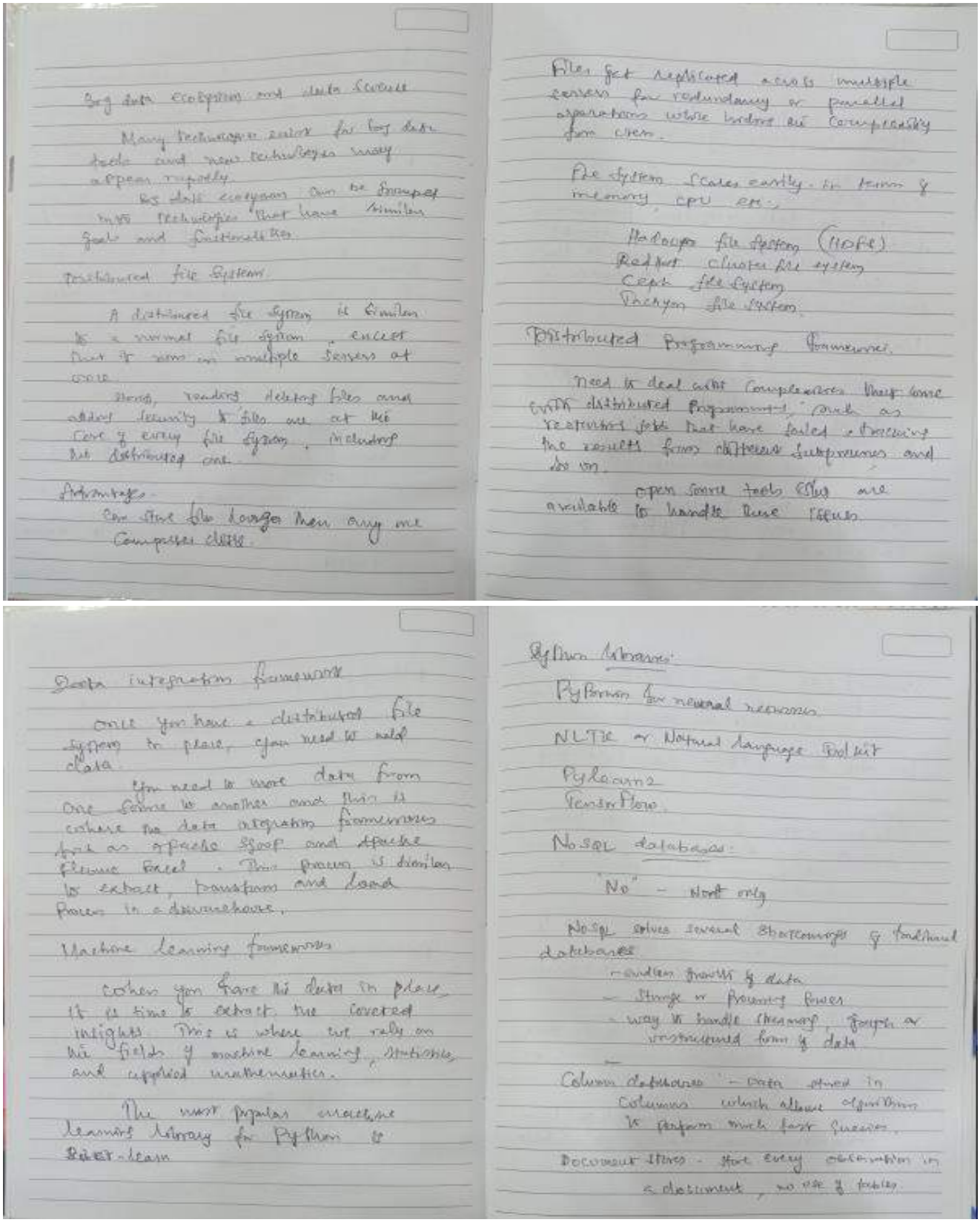
CS8080 – Information Retrieval Techniques

https://nptel.ac.in/courses/106101007

Course Study Material

Sample Handwritten Course Material - CS3352 Foundations of Data Science





Big data ecosystem and data science

Many technologies exist for big data tools and new technologies may appear rapidly.

Big data ecosystem can be grouped into technologies that have similar goal and functionality.

Distributed file System

A distributed file system is similar to a normal file system, except that it runs on multiple servers at once.

Here, readers deleting files and added security to files are at the core of every file system, including the distributed one.

Advantage:

Can store the larger than any one computer disk.

Files get replicated across multiple servers for redundancy or parallel operations while hiding the complexity for them.

File system scales easily in terms of memory, CPU etc.,

Hadoop file system (HDFS)
Red hat cluster file system
Ceph file system
Tachyon file system

Distributed Programming framework

Need to deal with complexities that come with distributed Programming, such as restarting jobs that have failed, combining the results from different computers and so on.

open source tools that are available to handle these issues

Data integration framework

Once you have a distributed file system in place, you need to add data.

You need to move data from one source to another and this is where the data integration frameworks such as Apache Sqoop and Apache Flume excel. The process is similar to extract, transform and load process in a data warehouse.

Machine learning framework

When you have the data in place it is time to extract the coveted insights. This is where we rely on the fields of machine learning, statistics and applied mathematics.

The most popular environment learning library for Python is Scikit-learn

Python libraries:

Pylearn2
TensorFlow

NoSQL database:

"No" - Not only

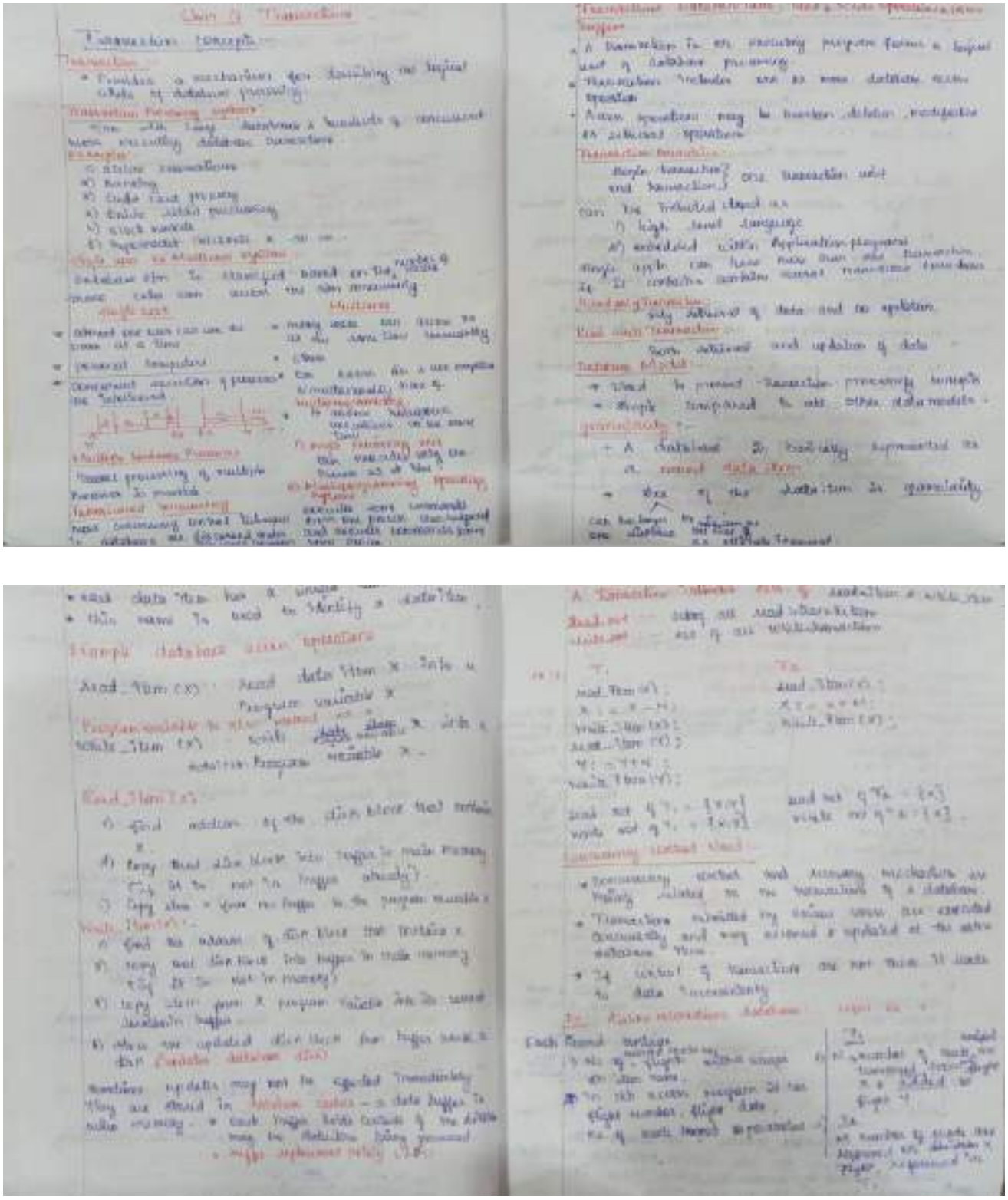
NoSQL solves several shortcomings of traditional databases

- sudden growth of data
- Storage or processing power
- way to handle streaming, graph or unstructured form of data

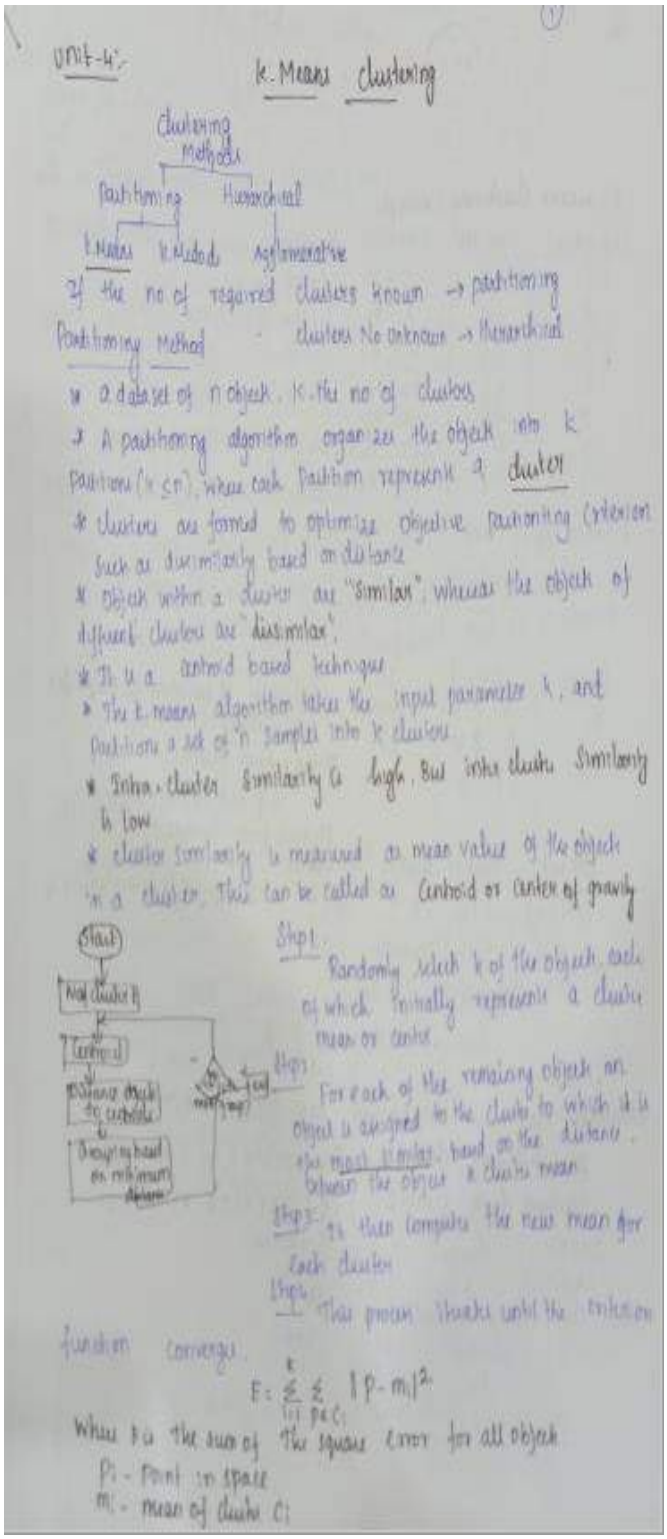
Column databases - Data stored in columns which allows algorithms to perform much faster queries.

Document stores - store every observation in a document, no use of tables

Sample Handwritten Course Material -CS3492 Database Management Systems



Sample Handwritten Course Material - CS3491 Artificial Intelligence and Machine Learning



Unit-4:

K-Means clustering

Clustering methods

Partitioning | Hierarchical

K-means | K-Medoids | Agglomerative

If the no of required clusters known → partitioning

Partitioning method - clusters No unknown → Hierarchical

* A dataset of n object, K the no of clusters
* A partitioning algorithm organizes the objects into k partitions ($k \leq n$), where each partition represents a cluster
* clusters are formed to optimize objective partitioning criterion such as dissimilarity based on distance
* Object within a cluster are "similar" whereas the object of different clusters are "dissimilar".
* It is a centroid based technique
* The k-means algorithm takes the input parameter k, and partitions a set of n samples into k clusters
* Intra-cluster similarity is high but inter cluster similarity is low
* cluster similarity is measured as mean value of the objects in a cluster. This can be called as centroid or center of gravity

Step1: Randomly select k of the objects each of which initially represents a cluster mean or centre

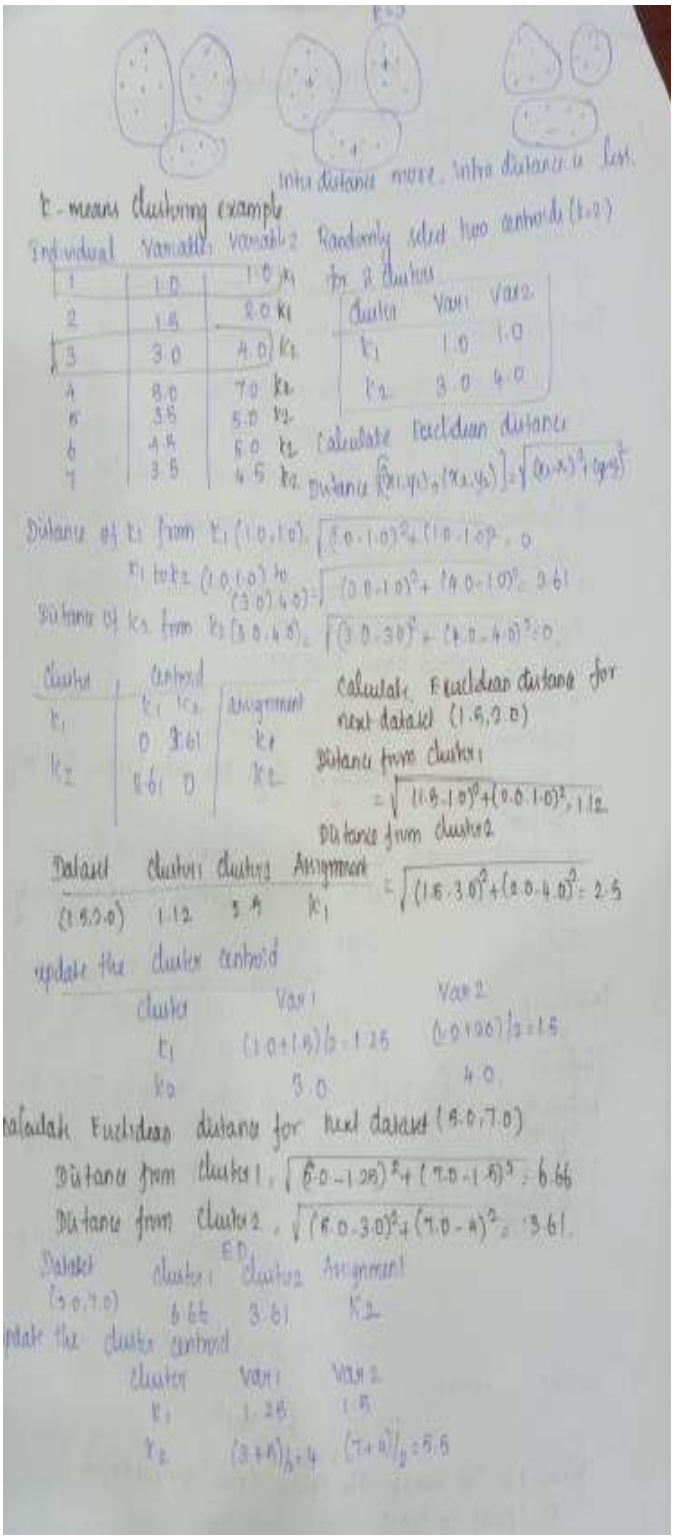
Step2: For each of the remaining objects an object is assigned to the cluster to which it is the most similar, based on the distance between the object & cluster mean

Step3: It then computes the new mean for each cluster

Step4: This process iterates until the criterion function converges.

$$E = \sum_{i=1}^{k} \sum_{p \in C_i} |p - m_i|^2$$

Where E is the sum of the square error for all object
Pi - Point in space
m_i - mean of cluster C_i



Intra distance more, inter distance is less.

k-means clustering example

Individual	Variable 1	Variable 2	
1	1.0	1.0	K_1
2	1.5	2.0	
3	3.0	4.0	K_2
4	5.0	7.0	K_2
5	3.5	5.0	K_2
6	4.5	5.0	K_2
7	3.5	4.5	K_2

Randomly select two centroids (k=2) for 2 clusters

Cluster	Var1	Var2
k_1	1.0	1.0
k_2	3.0	4.0

Calculate Euclidean distance

Distance $[(x_1,y_1),(x_2,y_2)] = \sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$

Distance of k_1 from $k_1(1.0,1.0)$ $\sqrt{(1.0-1.0)^2+(1.0-1.0)^2} = 0$

k_1 to $k_2(3.0,4.0)$ $\sqrt{(3.0-1.0)^2+(4.0-1.0)^2} = 3.61$

Distance of k_2 from $k_2(3.0,4.0)$ $\sqrt{(3.0-3.0)^2+(4.0-4.0)^2} = 0$

Cluster	Centroid k_1	Centroid k_2	Assignment
k_1	0	3.61	k_1
k_2	3.61	0	k_2

Calculate Euclidean distance for next dataset (1.5, 2.0)

Distance from cluster1 $= \sqrt{(1.5-1.0)^2+(2.0-1.0)^2} = 1.12$

Distance from cluster2 $= \sqrt{(1.5-3.0)^2+(2.0-4.0)^2} = 2.5$

Dataset	Cluster1	Cluster2	Assignment
(1.5,2.0)	1.12	2.5	k_1

update the cluster centroid

Cluster	Var1	Var2
k_1	$(1.0+1.5)/2 = 1.25$	$(1.0+2.0)/2 = 1.5$
k_2	3.0	4.0

Calculate Euclidean distance for next dataset (5.0, 7.0)

Distance from cluster1 $\sqrt{(5.0-1.25)^2+(7.0-1.5)^2} = 6.66$

Distance from cluster2 $\sqrt{(5.0-3.0)^2+(7.0-4)^2} = 3.61$

Dataset	Cluster1	Cluster2	Assignment
(5.0,7.0)	6.66	3.61	k_2

update the cluster centroid

Cluster	Var1	Var2
k_1	1.25	1.5
k_2	$(3+5)/2 = 4$	$(4+7)/2 = 5.5$

Sample Course Material - CS3301-DataStructures

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI-614 403

CS3301-DATA STRUCTURES

STUDY MATERIAL

UNIT I -LISTS

OBJECTIVES

The student should be made to:

- To understand the concepts of ADTs.
- To Learn linear data structures – lists, stacks, and queues.
- To understand non-linear data structures – trees and graphs.
- To understand sorting, searching and hashing algorithms.
- To apply Tree and Graph structures.

COURSE OUTCOMES

At the end of the course, the student will be able to

CO1: Define linear and non-linear data structures.
CO2: Implement linear and non-linear data structure operations.
CO3: Use appropriate linear/non-linear data structure operations for solving a given problem.
CO4: Apply appropriate graph algorithms for graph applications.
CO5: Analyze the various searching and sorting algorithms.

SYLLABUS

UNIT I LISTS 9

Abstract Data Types (ADTs) – List ADT – Array-based implementation – Linked list implementation – Singly linked lists – Circularly linked lists – Doubly-linked lists – Applications of lists – Polynomial ADT – Radix Sort – Multilists.

UNIT II STACKS AND QUEUES 9

Stack ADT – Operations – Applications – Balancing Symbols – Evaluating arithmetic expressions- Infix to Postfix conversion – Function Calls – Queue ADT – Operations – Circular Queue – DeQueue – Applications of Queues.

UNIT III TREES 9

Tree ADT – Tree Traversals - Binary Tree ADT – Expression trees – Binary Search Tree ADT – AVLTrees – Priority Queue (Heaps) – Binary Heap.

UNIT IV MULTIWAY SEARCH TREES AND GRAPHS 9

B-Tree – B+ Tree – Graph Definition – Representation of Graphs – Types of Graph - Breadth-firsttraversal – Depth-first traversal — Bi-connectivity – Euler circuits – Topological Sort – Dijkstra'salgorithm – Minimum Spanning Tree – Prim's algorithm – Kruskal's algorithm

UNIT V SEARCHING, SORTING AND HASHING TECHNIQUES 9

Searching – Linear Search – Binary Search. Sorting – Bubble sort – Selection sort – Insertion sort- Shell sort – Merge Sort – Hashing – Hash Functions – Separate Chaining – Open Addressing –Rehashing – Extendible Hashing.

Total: 45 Periods

TEXT BOOK

1. Mark Allen Weiss. Data Structures and Algorithm Analysis in C. 2nd Edition. PearsonEducation. 2005.
2. Karumanchi. Introduction to Data Structures in C. 1st Edition. Pearson Education. 2007

REFERENCE BOOKS

1. Langsam, Augenstein, and Tanenbaum. Data Structures Using C and C++. 2nd Edition. PearsonEducation. 2015.
2. Thomas H. Cormen. Charles E. Leiserson. Ronald L.Rivest. Clifford Stein. Introduction to Algorithms". Fourth Edition. Mcgraw Hill/ MIT Press. 2022.
3. Alfred V. Aho. Jeffrey D. Ullman. John E. Hopcroft .Data Structures and Algorithms. 1st edition.Pearson. 2002.
4. Kruse. Data Structures and Program Design in C. 2nd Edition. Pearson Education. 2006.
5. Reema Thareja Data Structures Using c. 2ndEdition.Oxford Press

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UNIT I –LISTS

Syllabus

UNIT I LISTS 9

Abstract Data Types (ADTs) – List ADT – Array-based implementation – Linked list implementation – Singly linked lists – Circularly linked lists – Doubly-linked lists – Applications of lists – Polynomial ADT – Radix Sort – Multilists.

Introduction

Data: A collection of facts concepts, figures, observations, occurrences or instructions in a formalized manner

Information: Processed data

Record: Collection of related fields.

Data Type: set of elements that share common set of properties used to solve a program.

Data Structures

A data structure is a group of data elements that provides the easiest way to store and perform different actions on the data of the computer.

A data structure is a particular way of organizing data in a computer so that it can be used effectively.

Characteristics of data structures

1. It depicts the logical representation of data in computer memory.
2. It represents the logical relationship between the various data elements.
3. It helps in efficient manipulation of stored data elements.
4. It allows the programs to process the data in an efficient manner.

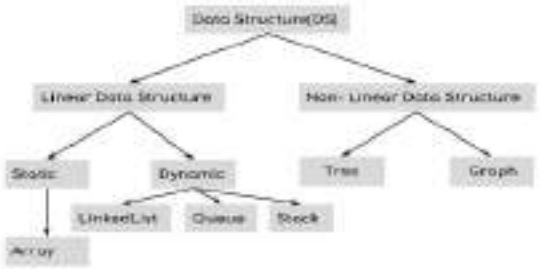
Classification of data structures

a) Primitive data structure

- All the fundamental types of data structures that can be directly manipulated by machine level instructions.
- integer, float, character, pointer

b) Non-primitive data structure

- Types of data structure that are derived from one are more primitive data structures.
- **Array, Linked list, stack**



A) Linear Data Structure

- Elements are stored in a sequential manner
- Array: Array is a homogeneous collection of elements.
  - array can store only similar data types at once
- **Linked List:** The functionality of a list is similar to an array.
  - uses dynamic memory allocation to store its elements at different memory locations
  - Stack: Stack is similar to a list but follows the LIFO principle to store and retrieve elements.
  - Queues: The Queue data structure is just the opposite of the stack since it uses the FIFO principle.

UNIT I –LISTS

B) Non-Linear Data Structure

- The storage of elements doesn't follow a sequential order.
- **Graph:** Used for network representation.
- **Tree:** The tree data structure uses a hierarchical form of structure to represent its elements.

Primitive data structure	Non-primitive data structure
Primitive data structure is a kind of data structure that stores the data of only one type.	Non-primitive data structure is a type of data structure that can store the data of more than one type.
Examples of primitive data structure are integer, character, and float.	Examples of non-primitive data structure are Array, Linked list, stack.
Primitive data structure will contain some value, i.e., it cannot be NULL.	Non-primitive data structure can consist of a NULL value.
The size depends on the type of the data structure.	In case of non-primitive data structure, size is not fixed.
It starts with a lowercase character.	It starts with an uppercase character.
Primitive data structure can be used to call the methods.	Non-primitive data structure cannot be used to call the methods.

1.1Abstract Data Types (ADTs)

- Data Type
  - Define certain domain of values
  - Define the operations allowed on those values
  - Example
    - int type –takes only integer value
    - Operations-addition, subtraction, multiplication,division,etc.
- User Defined Data type
  - A typical data type that we can derive out of any existing data type in a program.
  - Example: Structure, Union and enumerations.

Abstract Data Types (ADTs)

- A collection of data items together with the operations on the data.
- A set of objects together with a set of operations.
  - Example : lists ,set & graphs as ADT
- A mathematical model with a collection of operations defined on the model.
- ADT consists of data together with functions that operate on that data.
- **Advantages of ADT**
  1. Modularity
  2. Reuse
  3. Easy to understand
  4. Implementation of ADTs can be changed anytime without changing the program that uses it.

1.2 List ADT

List is a collection of ordered set of elements.The general form of the list is $A_1, A_2 \ldots A_N$.The size of the list is$N.A_1$ – First element of the list.A_2- second element of the list. If the element at position i is A_i, then its successor is A_{i+1} and its predecessor is A_{i-1}.

Various operations performed on List

1. Insert (X, 5) - Insert the element X after the position 5.

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2. Delete (X) - The element X is deleted
3. Find (X) - Returns the position of X.
4. Next (i) - Returns the position of its successor element i+1.
5. Previous (i) Returns the position of its predecessor i-1.
6. Print list - Contents of the list is displayed.
7. Make empty- Makes the list empty.
8. Find (k^{th}) - Find the element in the k^{th} position

Implementation of list ADT

1. Array based implementation
2. Linked List based implementation

1.2.1.Array-based implementation

A list of finite numbers of homogeneous elements .All function of a list can be implemented using an array. Maximum size of the list is to be declared. Array is a collection of specific number of same type of data stored in consecutive memory locations. Array is a static data structure i.e., the memory should be allocated in advance and the size is fixed. This will waste the memory space when used space is less than the allocated space.

- This implementation allows print_list and finds to be carried out in linear time.
- Find_kth operation takes constant time.
- Insertion and deletion are expensive.
  - Inserting at position 0 requires first pushing the entire array down one spot to make room.
  - Deleting the first element requires shifting all the elements in the list up one, so the worst case of these operations is O(n).
- On average, half the list needs to be moved for either operation, so linear time is still required.

1.2.2 Linked list implementation

A) Singly linked lists

The linked list consists of a series of structures, which are not necessarily adjacent in memory. Each structure contains the element and a pointer to a structure containing its successor. This is called as **next pointer**. The last cell's next pointer points to **NULL**.

A pointer variable is just a variable that contains the address where some other data is stored. Thus, if p is declared to be a pointer to a structure, then the value stored in p is interpreted as the location, in main memory, where a structure can be found. A field of that structure can be accessed by p ->Field Name. Field name is the name of the field to be examined.



Fig No.1 Linked list

The list contains five structures, that resides in memory locations 1000, 800, 712, 992, and 692 respectively. The next pointer in the first structure has the value 800, which provides the indication of where the second structure is. The other structures each have a pointer that serves a similar purpose. In order to access this list, need to know where the first cell can be found. A pointer variable can be used for this purpose. It is important to remember that a pointer is just a number.

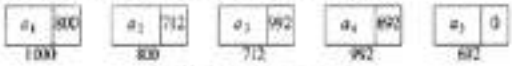


Fig No.2 Linked list with values

Insertion of Linked List

The insert command requires obtaining a new cell from the system by using a **malloc** call and then executing two pointer maneuvers



Fig No.3 Insertion of Linked list

Deletion of Linked List

The delete command can be executed in one pointer change



Fig No.4 Deletion of Linked list

Linked list with a header

A sentinel node may be kept to point to the first node in the list. Sentinel node is sometimes referred to as a header or dummy node.

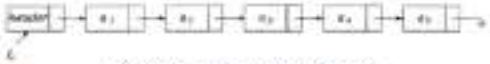


Fig No.5 Linked list with header node

To avoid the problems associated with deletions, a routine to find_ previous, is needed which will return the position of the predecessor of the cell we wish to delete. If the header is used, then to delete the first element in the list, find_previous will return the position of the header.

Print_list (L) or find (L,key)

To execute print_list(L) or find(L,key), a pointer is passed to the first element in the list and then traverse the list by following the next pointers.

Declaration of Linked List	**Routine to insert an element in list**

void insert(int X,List L,position P);
void find(List L,int X);
void delete(int x , List L);
typedef struct node *position;
position L,p,newnode;
struct node
{
int data;
position next;
};
	Void insert(int X,List L, position p)
	{
	position newnode;
	newnode=malloc(sizeof(struct node));
	If(newnode==NULL)
	Fatal error("Out of Space");
	else
	{
	newnode->data=x;
	newnode->next=p->next;
	p->next=newnode;
	}}

Routine to check whether a list is Empty
int IsEmpty(List L)
{
if (L->next==NULL)
return(1);
}
	Routine to check whether the current position is last in the List
	int IsLast (List L , position p)
	{
	if(p->next==NULL)
	return(1);
	}

Routine to Find the Element in the List
position find(List L,int X)
{
position p;
p=L->next;
while(p!=NULL &&& p->data!=X)
p=p->next;
return(p);
}
	Routine to Find the Element in the List
	position find(List L,int X)
	{
	position p;
	p=L->next;
	while(p!=NULL &&& p->data!=X)
	p=p->next;
	return(p);
	}

Find Previous

```
position find previous (int X,list L)
{
position p;
p=L;
while(p->next!=NULL && p->next->data!=X)
p=p->next;
return P;
}
```

Routine to find next Element in the List

```
void findnext(int X, List L)
{
position P;
P=L->next;
while(P!=NULL && P->data!=X)
P->next;
return P->next;
}
```

Routine to Delete an Element in the List

```
void delete(int x , List L)
{position p,Temp;
p=find previous(X,L);
if(!IsLast(p,L))
{
temp=p->next;
p->next=temp->next;
free(temp);
} }
```

Routine to Delete the List

```
void delete list(List L)
{
position P,temp;
P=L->next;
L->next=NULL;
while(P!=NULL)
{
temp=P->next;
free(P);
P=temp;
} }
```

B) Doubly-linked list:

- It is convenient to traverse lists backwards.
- An extra field is added to the data structure, containing a pointer to the previous cell.
- The cost of this is an extra link, which adds to the space requirement and also doubles the cost of insertions and deletions because there are more pointers to fix.
- It simplifies deletion, because no longer to refer to a key by using a pointer to the previous cell.

- A doubly linked list is a linked list in which each node has three fields:
  - Data-This field stores the value of the element
  - Next-This field points to the successor node in the list
  - Prev-This field points to the predecessor node in the list



Fig No.6 (a) Doubly Linked list - node



Fig No.6 (b) Doubly Linked list

Structure

```
struct node
{
struct node *prev;
int data;
struct node *next;
};
```

Inserting a New Node in a Doubly Linked List

Case 1: The new node is inserted at the beginning.
Case 2: The new node is inserted at the end.
Case 3: The new node is inserted after a given node.
Case 4: The new node is inserted before a given node.

Deleting a Node from a Doubly Linked List

Case 1: The first node is deleted.
Case 2: The last node is deleted.
Case 3: The node after a given node is deleted.
Case 4: The node before a given node is deleted.

Inserting a Node at the Beginning of a Doubly Linked List

Algorithm

```
Step 1: IF AVAIL = NULL
          Write OVERFLOW
          Go to Step 7
        [END OF IF]
Step 2: SET NEW_NODE = AVAIL
Step 3: SET AVAIL = AVAIL -> NEXT
Step 4: SET NEW_NODE -> DATA = VAL
Step 5: SET NEW_NODE -> NEXT = START
Step 6: SET START = NEW_NODE
Step 7: EXIT
```

- In Step 1, check whether memory is available for the new node. If the free memory has exhausted, then an OVERFLOW message is printed.
- Otherwise, if free memory cell is available, then a space is allocated for the new node.
- Set its DATA part with the given VAL and the NEXT part is initialized with the address of the first node of the list, which is stored in START.
- Now, since the new node is added as the first node of the list, it will now be known as the START node, that is, the START pointer variable will now hold the address of NEW_NODE.

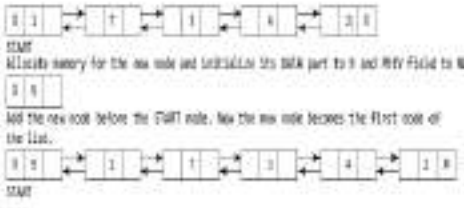


Fig No.7 Insertion at the Beginning of a Doubly Linked List

Inserting a Node at the End of a Doubly Linked List

To add a new node with data 9 as the last node of the list.



Fig No.8 Insertion at the end of a Doubly Linked List

Algorithm

```
Step 1: IF AVAIL = NULL
          Write OVERFLOW
          Go to Step 11
        [END OF IF]
Step 2: SET NEW_NODE = AVAIL
Step 3: SET AVAIL = AVAIL->NEXT
Step 4: SET NEW_NODE -> DATA = VAL
Step 5: SET NEW_NODE -> NEXT = NULL
Step 6: SET PTR = START
Step 7: Repeat Step 8 while PTR->NEXT != NULL
Step 8:     SET PTR = PTR->NEXT
        [END OF LOOP]
Step 9: SET PTR->NEXT = NEW_NODE
Step 10: SET NEW_NODE->PREV = PTR
Step 11: EXIT
```

- Step 6, a pointer variable PTR is taken and initialized it with START. That is, PTR now points to the first node of the linked list.
- In the while loop, the linked list is traversed to reach the last node.
- Once the last node is reached, in Step 9, NEXT pointer of the last node is changed to store the address of the new node.
- NEXT field of the new node contains NULL, which signifies the end of the linked list.

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Inserting a Node after a Given Node in a Linked List

To add a new node with data 9 after node of data 3 of the list.

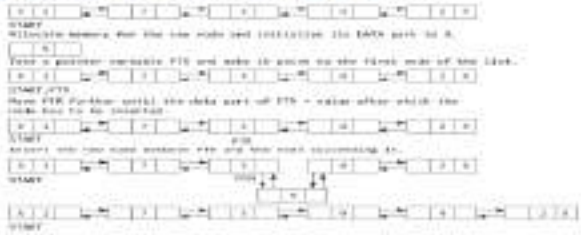


Fig No.9 Insertion at the after a given node

Algorithm

```
Step 1: IF AVAIL = NULL
            Write OVERFLOW
            Go to Step 12
        [END OF IF]
Step 2: SET NEW_NODE = AVAIL
Step 3: SET AVAIL = AVAIL->NEXT
Step 4: SET NEW_NODE->DATA = VAL
Step 5: SET PTR = START
Step 6: Repeat Step 7 while PTR->DATA != NUM
Step 7:     SET PTR = PTR->NEXT
        [END OF LOOP]
Step 8: SET NEW_NODE->NEXT = PTR->NEXT
Step 9: SET NEW_NODE->PREV = PTR
Step 10: SET PTR->NEXT = NEW_NODE
Step 11: SET PTR->NEXT->PREV = NEW_NODE
Step 12: EXIT
```

- A pointer PTR is initialized with START.
- PTR now points to the first node of the linked list.
- While loop,
  - through the linked list to reach the node that has its value equal to NUM.

  This node is to reached because the new node will be inserted after this node.
  - Change the NEXT and PREV fields in such a way that the new node is inserted after the desired node.

Inserting a Node before a Given Node in a Doubly Linked List

To add a new node with data 9 before node of data 3 of the list.



Fig No.10 Insertion at the before a given node

Algorithm

- A pointer variable PTR and initialize it with START.
  - PTR now points to the first node of the linked list.
- while loop
  - linked list is traversed to reach the node that has its value equal to NUM.
  - as the new node will be inserted before this node.
  - the NEXT and PREV fields in such a way that the new node is inserted before the desired node.

```
Step 1: IF AVAIL = NULL
            write OVERFLOW
            Go to Step 12
        [END OF IF]
Step 2: SET NEW_NODE = AVAIL
Step 3: SET AVAIL = AVAIL->NEXT
Step 4: SET NEW_NODE->DATA = VAL
Step 5: SET PTR = START
Step 6: Repeat Step 7 while PTR->DATA != NUM
Step 7:     SET PTR = PTR->NEXT
        [END OF LOOP]
Step 8: SET NEW_NODE->NEXT = PTR
Step 9: SET NEW_NODE->PREV = PTR->PREV
Step 10: SET PTR->PREV = NEW_NODE
Step 11: SET PTR ->PREV->NEXT = NEW_NODE
Step 12: EXIT
```


Deleting the First Node from a Doubly Linked List

Algorithm

```
Step 1: IF START = NULL
            Write UNDERFLOW
            GO TO STEP 6
        [END OF IF]
Step 2: SET PTR = START
Step 3: SET START = START->NEXT
Step 4: SET START->PREV = NULL
Step 5: FREE PTR
Step 6: EXIT
```

- If START = NULL, then no nodes in the list so go to last statement of the algorithm.
- If there are nodes in the linked list, then, a temporary pointer variable PTR that is set to point to the first node of the list.
- Initialize PTR with START that stores the address of the first node of the list.
- In Step 3, START is made to point to the next node in sequence and finally the memory occupied by PTR is freed and returned to the free pool.



Fig No.11 Deletion of the first node

Deleting the Last Node from a Doubly Linked List



Fig No.11 Deletion of the Last node

Algorithm

```
Step 1: IF START = NULL
            Write UNDERFLOW
            Go to Step 7
        [END OF IF]
Step 2: SET PTR = START
Step 3: Repeat Step 4 while PTR->NEXT != NULL
Step 4:     SET PTR = PTR->NEXT
        [END OF LOOP]
Step 5: SET PTR->PREV->NEXT = NULL
Step 6: FREE PTR
Step 7: EXIT
```

- In Step 2, a pointer variable PTR is used and initialized with START.
- While loop traverses through the list to reach the last node.
- When the last node is reached, the second last node can be accessed by taking its address from the PREV field of the last node.
- To delete the last node, set the next field of second last node to NULL.
- Now becomes the (new) last node of the linked list.
- The memory of the previous last node is freed and returned to the free pool.

Deleting the Node after a Given Node in a Doubly Linked List

Algorithm

```
Step 1: IF START = NULL
            Write UNDERFLOW
            Go To Step 9
        [END OF IF]
Step 2: SET PTR = START
Step 3: Repeat Step 4 while PTR->DATA != num
Step 4:     SET PTR = PTR->NEXT
        [END OF LOOP]
Step 5: SET TEMP = PTR->NEXT
Step 6: SET PTR->NEXT = TEMP->NEXT
Step 7: SET TEMP->NEXT->PREV = PTR
Step 8: FREE TEMP
Step 9: EXIT
```

- In Step 2, a pointer variable PTR is taken and initialized with START.
- While loop traverses through the linked list to reach the given node.
- When the node containing VAL is reached the node succeeding it can be accessed by using the address stored in its NEXT field.
- The NEXT field of the given node is set to contain the contents in the NEXT field of the succeeding node.
- the memory of the node succeeding the given node is freed and returned to the free pool.

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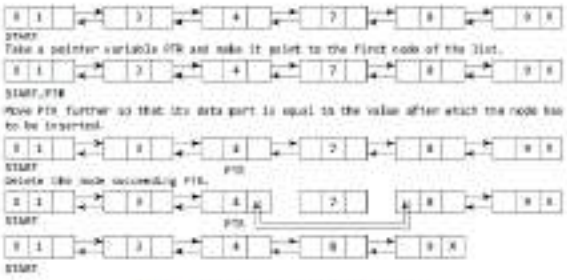


Fig No.12 Deletion after a given node

Deleting the Node before a Given Node in a Doubly Linked List

Algorithm

- In Step 2, a pointer variable PTR is taken and initialized with START.
- While loop traverses through the linked list to reach the given node.
- When the node containing VAL is reached the node succeeding it can be accessed by using the address stored in its PREV field.
- PREV field of PTR is set to contain the address of the node preceding the node which comes before PTR.
- The memory of the node preceding the PTR is freed and returned to the free pool.

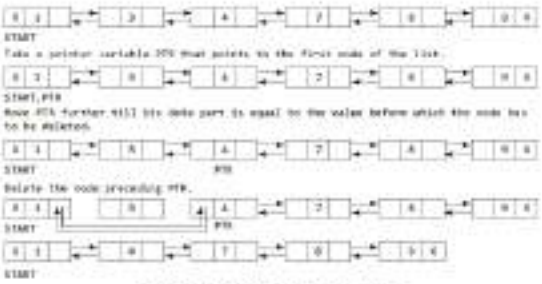


Fig No.13 Deletion before given node

C) Circularly linked lists

- The last node contains a pointer to the first node of the list.
  - Circular Singly linked List
  - Circular Doubly Linked list
- With or without a header
  - if the header is present, the last cell points to it
  - It can also be done with doubly linked lists
    - the first cell's previous pointer points to the last cell
- Circular linked list traverse can
  - begin at any node
  - any direction, forward or backward, until the initial node is reached
- A circular linked list has no beginning and no ending.



Fig No.14 Circular singly linked list

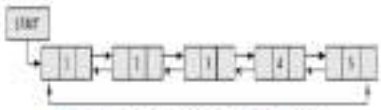


Fig No.15 Circular doubly linked list

Inserting a New Node in a Circular Linked List

Case 1: The new node is inserted at the beginning of the circular linked list.

Case 2: The new node is inserted at the end of the circular linked list.

Inserting a Node at the beginning of a Circular Linked List

To add a new node with data 9 as the first node of the list.

Algorithm

- In Step 1, memory availability for the new node is checked. If no free memory then an OVERFLOW message is printed.
- Otherwise, if free memory cell is available, then space is allocated for the new node.
- Set its DATA part with the given VAL and the NEXT part is initialized with the address of the first node of the list, which is stored in START.
- The new node is added as the first node of the list, it will now be known as the START node.
- The START pointer variable will now hold the address of the NEW_NODE.
- While loop is used to traverse to the last node of the list during insertion.
- Because the last node contains a pointer to START, its NEXT field is updated so that after insertion it points to the new node where START pointer is present.

To add a new node with data 9 as the first node of the list.



Fig No.16 Insertion at the beginning of circular singly linked list

Inserting a Node at the end of a Circular Linked List

Algorithm

- In Step 6, a pointer variable PTR is taken and initialized with START.
- While loop is used to traverse through the linked list to reach the last node.
- In Step 9, the last node is reached, the NEXT pointer of the last node is changed to store the address of the new node.
- The NEXT field of the new node contains the address of the first node which is denoted by START.

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To add a new node with data 9 at the end of the list.

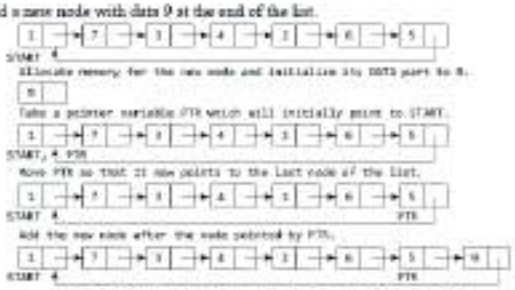


Fig No.17 Insertion at the end of circular singly linked list

Deleting a Node from a Circular Doubly Linked List

Case 1: The first node is deleted.

Case 2: The last node is deleted.

Deleting the First Node from a Circular Linked List

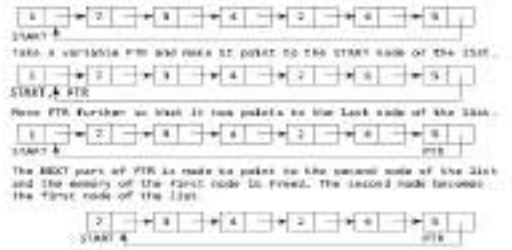


Fig No.18 Deletion at the first node of circular singly linked list

Algorithm

```
Step 1: IF START = NULL
            Write UNDERFLOW
            Go to Step 8
        [END OF IF]
Step 2: SET PTR = START
Step 3: Repeat Step 4 while PTR->NEXT != START
Step 4:     SET PTR = PTR->NEXT
        [END OF LOOP]
Step 5: SET PTR->NEXT = START->NEXT
Step 6: FREE START
Step 7: SET START = PTR->NEXT
Step 8: EXIT
```

- In Step 1, If START = NULL is checked, if so that there are no nodes in the list then go to the last statement of the algorithm.
- If there are nodes in the linked list, then a pointer variable PTR which is used to traverse the list to ultimately reach the last node.
- In Step 5, the next pointer of the last node is changed to point to the second node of the circular linked list.
- In Step 6, the memory occupied by the first node is freed.
- In Step 7, the second node now becomes the first node of the list and its address is stored in the pointer variable START.

Deleting the Last Node from a Circular Linked List



Fig No.18 Deletion at the last node of circular singly linked list

Algorithm

```
Step 1: IF START = NULL
            Write UNDERFLOW
            Go to Step 8
        [END OF IF]
Step 2: SET PTR = START
Step 3: Repeat Step 4 and 5 while PTR->NEXT != START
Step 4:     SET PREPTR = PTR
Step 5:     SET PTR = PTR->NEXT
        [END OF LOOP]
Step 6: SET PREPTR->NEXT = START
Step 7: FREE PTR
Step 8: EXIT
```

- In Step 2, a pointer variable PTR is taken and initialized with START.
- While loop, another pointer variable is taken PREPTR and it always points to one node before PTR.
- When the last node and the second last node is reached ,t the next pointer of the second last node is set to START, so that it now becomes the (new) last node of the linked list.
- The memory of the previous last node is freed and returned to the free pool.

D) Circular doubly linked list

- A circular two-way linked list is a more complex type of linked list
  - contains a pointer to the next as well as the previous node in the sequence.
- The circular doubly linked list
  - does not contain NULL in the previous field of the first node and the next field of the last node.
  - the next field of the last node stores the address of the first node of the list, i.e., START.
  - Similarly, the previous field of the first field stores the address of the last node.
- It contains three parts in its structure,
  - it calls for more space per node and more expensive basic operations.
- Provides the ease to manipulate the elements of the list as it maintains pointers to nodes in both the directions (forward and backward).
- Advantage :
  - Makes search operation twice as efficient.



Fig No.19circular Doubly linked list

Inserting a New Node in a Circular Doubly Linked List

Case 1: The new node is inserted at the beginning.

Case 2: The new node is inserted at the end.

Inserting a Node at the Beginning of a Circular Doubly Linked List

Algorithm

```
Step 1: IF AVAIL = NULL
            write OVERFLOW
            Go to Step 11
        [END OF IF]
Step 2: SET NEW_NODE = AVAIL
Step 3: SET AVAIL = AVAIL -> NEXT
Step 4: SET NEW_NODE->DATA = VAL
Step 5: SET PTR = START
Step 6: Repeat Step 7 while PTR->NEXT != START
Step 7:     SET PTR = PTR->NEXT
        [END OF LOOP]
Step 8: SET PTR->NEXT = NEW_NODE
Step 9: SET NEW_NODE->PREV = PTR
Step 10: SET NEW_NODE->NEXT = START
Step 11: SET START->PREV = NEW_NODE
Step 12: SET START = NEW_NODE
Step 13: EXIT
```

- In Step 1, memory availability for the new node is checked. If no free memory then an OVERFLOW message is printed.
- Otherwise, if free memory cell is available, then space is allocated for the new node.
- Set its data part with the given VAL and its next part is initialized with the address of the first node of the list, stored in START.
- The new node is added as the first node of the list, the START pointer variable will now hold the address of NEW_NODE.
- Since it is a circular doubly linked list, the PREV field of the NEW_NODE is set to contain the address of the last node.

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To add a new node with data 9 as the first node of the list



Fig No.20 Insertion at the first node of circular doubly linked list

Inserting a Node at the End of a Circular Doubly Linked List

Algorithm

```
Step 1: IF AVAIL = NULL
            Write OVERFLOW
            Go to Step 12
        [END OF IF]
Step 2: SET NEW_NODE = AVAIL
Step 3: SET AVAIL = AVAIL -> NEXT
Step 4: SET NEW_NODE -> DATA = VAL
Step 5: SET NEW_NODE -> NEXT = START
Step 6: SET PTR = START
Step 7: Repeat Step 8 while PTR -> NEXT != START
Step 8:     SET PTR = PTR -> NEXT
        [END OF LOOP]
Step 9: SET PTR -> NEXT = NEW_NODE
Step 10: SET NEW_NODE -> PREV = PTR
Step 11: SET START -> PREV = NEW_NODE
Step 12: EXIT
```

- In Step 6, pointer variable PTR is taken and initialized with START.
- While loop, is used to traverse through the linked list till the last node is reached.
- In Step 9, the NEXT pointer of the last node is changed to store the address of the new node.
- The PREV field of the NEW_NODE is set to point to the node pointed by PTR.

To add a new node with data 9 as the last node of the list

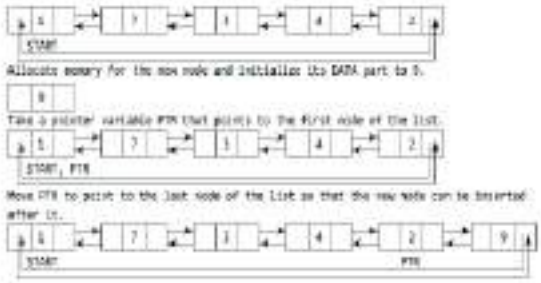


Fig No.21 Insertion at the Last node of circular doubly linked list

Deleting the First Node from a Circular Doubly Linked List

Algorithm

```
Step 1: IF START = NULL
            Write UNDERFLOW
            Go to Step 12
        [END OF IF]
Step 2: SET NEW_NODE = AVAIL
Step 3: SET AVAIL = AVAIL -> NEXT
Step 4: SET NEW_NODE -> DATA = VAL
Step 5: SET NEW_NODE -> NEXT = START
Step 6: SET PTR = START
Step 7: Repeat Step 8 while PTR -> NEXT != START
Step 8:     SET PTR = PTR -> NEXT
        [END OF LOOP]
Step 9: SET PTR -> NEXT = NEW_NODE
Step 10: SET NEW_NODE -> PREV = PTR
Step 11: SET START -> PREV = NEW_NODE
Step 12: EXIT
```

- In Step 1, IF START = NULL, then it signifies that there are no nodes in the list and go to the last statement of the algorithm.
- If there are nodes in the linked list, PTR is initialized with START that stores the address of the first node of the list.
- While loop traverses through the list to reach the last node, the NEXT pointer of PTR is set to contain the address of the node that succeeds START when the last node is reached.
- START is made to point to the next node in the sequence and the memory occupied by the first node of the list is freed and returned to the free pool.



Fig No.22 Deletion at the first node of circular doubly linked list

Deleting the Last Node from a Circular Doubly Linked List

```
Step 1: IF START = NULL
            Write UNDERFLOW
            Go to Step 9
        [END OF IF]
Step 2: SET PTR = START
Step 3: Repeat Step 4 while PTR -> NEXT != START
Step 4:     SET PTR = PTR -> NEXT
        [END OF LOOP]
Step 5: SET PTR -> PREV -> NEXT = START
Step 6: SET START -> PREV = PTR -> PREV
Step 7: FREE PTR
Step 8: EXIT
```

- In Step 2, a pointer variable PTR is taken and initialized with START.
- While loop traverses through the list to reach the last node.
- When the last node is reached the second last node also can be accessed by taking its address from the PREV field of the last node.
- To delete the last node, set the next field of the second last node to contain the address of START, it becomes the (new) last node of the linked list.
- The memory of the previous last node is freed and returned to the free pool.

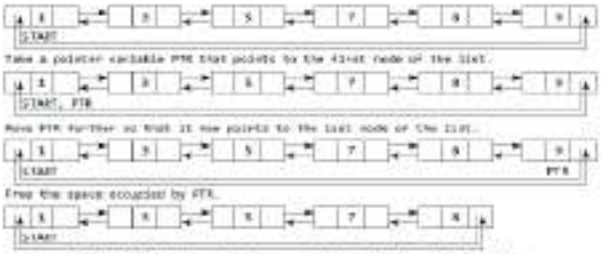


Fig No.23 Deletion at the last node of circular doubly linked list

1.3 Applications of lists

- Polynomial ADT
- Radix sort
- Multilists

1.3.1 Polynomial ADT

- A single variable polynomial can be generalized as

$$f(x) = \sum_{i=0}^{n} a_i x^i$$

- Polynomial can be represented in the various ways
  - Arrays
  - Linked List

A) Array implementation

- Index represents exponents
- Example:

$P1(x) = 8x^3 + 3x^2 + 2x + 6$, $P2(x) = 23x^4 - 18x - 3$

$P3(x) = 16x^{21} - 3x^4 + 2x - 6$

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- Array Representation of the above polynomials are
  - Index represents the Powers of the polynomial

$P1(x) = 8x^3 + 3x^2 + 2x + 6$

Index	0	1	2	3
	6	2	3	8

$P2(x) = 23x^4 + 18x - 3$

Index	0	1	2	3	4
	-3	18	0	0	23

$P3(x) = 16x^{21} - 3x^5 + 2x + 6$

Index	0	1	2	3	4	5	....	21
	6	2	0	0	0	-3		16

Advantages

- Ease of storage and retrieval
- Only good for non-sparse polynomial

Disadvantages

- Have to allocate array size ahead of time.
- Huge array size required for sparse polynomials. Waste of space and runtime.

Linked list implementation

- Every individual term in a polynomial consists of two parts,
  a coefficient and a power
- Every term of a polynomial can be represented as a node of the linked list.
- Polynomial manipulations such as addition, subtraction etc. can be performed using linked list.

- Example $6x^3 + 9x^2 + 7x + 1$ coefficients of the terms : 6, 9, 7,1
  3, 2, 1, 0 are their powers.



Fig No.24 Polynomial representation as linked list

Declaration of Polynomial	**Creation of Polynomial**

struct poly{
int coeff;
int power;
struct poly *next;
} *list1, *list2, *list3;
	poly create(poly *head, poly *newnode)
	{ poly*ptr;
	if(head==NULL)
	{ head=newnode;
	return(head); }
	else
	{ ptr=head;
	while(ptr-> next!=NULL)
	ptr=ptr->next;
	ptr->next=newnode; }
	return(head);
	}

Addition of Polynomials

To add two polynomials follow the following steps:

- Read two polynomials.
- Add them.
  - If terms are with the same exponent in the two polynomials, then the coefficients are added;
  - Otherwise, the terms of larger exponent is copied into the sum and go on.

  - When the end of one of the polynomial is reached, the remaining part of the other is copied into the sum.
- Display the resultant polynomial.

```
void add()
{
poly *ptr1, *ptr2, *newnode;
ptr1=list1;
ptr2=list2;
while(ptr1!=NULL && ptr2!=
NULL)
{ newnode=malloc(sizeof(struct
poly));
if(ptr1->power==ptr2->power)
{ newnode->coeff = ptr1->coeff +
ptr2->coeff;
newnode->power=ptr1->power;
newnode->next=NULL;
list3=create(list3,newnode);
ptr1=ptr->next;
ptr2=ptr2->next;
}
```

```
else
{
if(ptr1->power > ptr2->power)
{
newnode->coeff = ptr1->coeff;
newnode->power=ptr1->power;
newnode->next=NULL;
list3=create(list3,newnode);
ptr1=ptr1->next;
}
else
{
newnode->coeff = ptr2->coeff;
newnode->power=ptr2->power;
newnode->next=NULL;
list3=create(list3,newnode);
ptr2=ptr2->next;
}}}
```

Subtraction of Polynomials

To subtract two polynomials follow the following steps:

- Read two polynomials.
- Subtract them.
  - If terms are with the same exponent in the two polynomials, then the coefficients are subtracted.
  - Otherwise, the terms of larger exponent is copied into the sum and go on.
  - When the end of one of the polynomial is reached, the remaining part of the other is copied into the sum.
- Display the resultant polynomial.

```
void sub()
{
poly *ptr1, *ptr2, *newnode;
ptr1=list1;
ptr2=list2;
while(ptr1!=NULL && ptr2!=
NULL)
{ newnode=malloc(sizeof(struct
poly));
if(ptr1->power==ptr2->power)
{ newnode->coeff =
ptr1->coeff - ptr2->coeff;
newnode->power=ptr1->power;
newnode->next=NULL;
list3=create(list3,newnode);
ptr1=ptr->next;
ptr2=ptr2->next;
}
```

```
else
{
if(ptr1->power > ptr2->power)
{
newnode->coeff = ptr1->coeff;
newnode->power=ptr1->power;
newnode->next=NULL;
list3=create(list3,newnode);
ptr1=ptr1->next;
}
else
{
newnode->coeff = ptr2->coeff;
newnode->power=ptr2->power;
newnode->next=NULL;
list3=create(list3,newnode);
ptr2=ptr2->next;
}}}
```

Multiplication of Polynomials

- Multiplication of two polynomials requires manipulation of each node such that the exponents are added up and the coefficients are multiplied.

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- After each term of first polynomial is operated upon with each term of the second polynomial
- Then the result has to be added up by comparing the exponents and adding the coefficients for similar exponents and including terms as such with dissimilar exponents in the result

```
void Mul()
{
poly *ptr1, *ptr2, *newnode;
ptr1=list1;
ptr2=list2;
if(ptr1 == NULL && ptr2 == NULL)
return;
if(ptr1 == NULL) // I polynomial
does not exist
list3 = list2;
else if(ptr2 ==NULL) // II polynomial
does not exist
list3 =list1;
else // Both polynomial exist
{ if(ptr1!=NULL && ptr2!=
NULL)
{ while(ptr1!=NULL)
{ newnode=malloc(sizeof(struct
poly));
while(ptr2!=NULL)
{ newnode->coeff = ptr1->coeff *
ptr2 ->coeff;
newnode->power=ptr1->power +
ptr2->power;
list3=create(list3,newnode);
ptr2=ptr2->next;
}
ptr2=list2;
ptr1=ptr1->next;
} } } }
```

Radix Sort

Radix sort is a linear sorting algorithm for integers and uses the concept of sorting names in alphabetical order. So it is also known as bucket sort or card sort.When radix sort is used on integers, sorting is done on each of the digits in the number.

The sorting procedure proceeds by sorting the least significant to the most significant digit. While sorting the numbers, we have ten buckets, each for one digit (0, 1, 2.... 9) and the number of passes will depend on the length of the number having maximum number of digits.

Number of passes depends on the large number of digits.After each pass, the numbers are collected bucket by bucket. The new list thus formed is usedas an input for the next pass.

Algorithm for Radix Sort (ARR, N)

Step 1: Find the largest number in ARR as LARGE
Step 2: [INITIALIZE] SET NOP = Number of digits in LARGE
Step 3: SET PASS = 0
Step 4: Repeat Step 5 while PASS <= NOP-1
Step 5: SET I = and INITIALIZE buckets
Step 6: Repeat Steps 7 to 9 while I<N-1
Step 7: SET DIGIT = digit at PASSth place in A[I]
Step 8: Add A [I] to the bucket numbered DIGIT
Step 9: INCEREMENT bucket count for bucket numbered DIGIT
[END OF LOOP]
Step 10: Collect the numbers in the bucket [END OF LOOP]
Step 11: END

Example 1:Sort the numbers given below using radix sort 345, 654, 924, 123, 567, 472, 555, 808, 911

Number of digits =3
Number of passes =3
Buckets after first pass

	911	472	123	924 654	555 345		567	808	
0	1	2	3	4	5	6	7	8	9

911,472,123,654,924,345,555,567,808

Buckets after second pass

	911	924 123		345	555 654	567	472		
0	1	2	3	4	5	6	7	8	9

911,924,123,345,555,654,567,472

Buckets after third pass

	123			345	472	567 555	654		924 911
0	1	2	3	4	5	6	7	8	9

123,345, 472,567,555,654,924,911

Complexity of Radix Sort

- There are n numbers that have to be sorted and k is the number of digits in the largest number.
- The algorithm is called a total of k times and the inner loop is executed n times.
- O (kn) time is taken to execute.
- When radix sort is applied on a data set of finite size (very small set of numbers), then the algorithm runs in O(n) asymptotic time

Pros and Cons of Radix Sort

- one of the fastest sorting algorithms for numbers or strings of letters
- Requires more space than other sorting algorithms.
- The algorithm is dependent on digits or letters.
- Takes more time to write and writing a general purpose radix sort algorithm.

Multilists

A general multi-linked list each node can have any number of pointers to other nodes, and there may or may not be inverses for each pointer.Multi-lists are essentially the technique of embedding multiple lists into a single data structure.A multi-list has more than one next pointer, like a doubly linked list, but the pointers create separate lists.

Given a linked list where in addition to the next pointer, each node has a child pointer, which may or may not point to a separate list.These child lists may have one or more children of their own, and so on, to produce a multilevel data structure. The entire list must have a header and circular.

A university with40, 000 students and 2,500 courses needs to be able to generate two types ofreports. The first report lists the class registration for each class, and thesecond report lists, by student, the classes that each student is registered for.

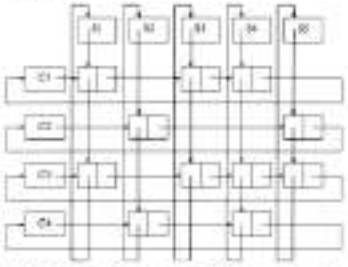


Fig no.24 Multilist implementation for registration problem

- To list all of the students in class C3,start at C3 and traverse its list (by going right).
  C3 → S1 → S3 → S4 → S5
- To list all of the classes a student S1 registered,start at S1 and traverse down in the list.
  S1 → C1 → C3
- Using a circular list saves space but does so at the expense of time.

UNIT I –LISTS

PART A

1. Explain the term data structure.

The data structure can be defined as the collection of elements and all the possible operations which are required for those set of elements. Formally data structure can be defined as a data structure is a set of domains D, a set of domains F and a set of axioms A. this triple (D,F,A) denotes the data structure d.

2. What do you mean by non-linear data structure? Give example.

The non-linear data structure is the kind of data structure in which the data may be arranged in hierarchical fashion. For example- Trees and graphs.

3. What do you linear data structure? Give example.

The linear data structure is the kind of data structure in which the data is linearly arranged. For example- stacks, queues, linked list.

4. Enlist the various operations that can be performed on data structure.

Various operations that can be performed on the data structure are

- Create
- Insertion of element
- Deletion of element
- Searching for the desired element
- Sorting the elements in the data structure
- Reversing the list of elements

5. What is abstract data type? What are all not concerned in an ADT?

The abstract data type is a triple of D i.e. set of axioms, F-set of functions and A-Axioms in which only what is to be done is mentioned but how is to be done is not mentioned. Thus ADT is not concerned with implementation details.

6. List out the areas in which data structures are applied extensively.

Following are the areas in which data structures are applied extensively.

- **Operating systems**- the data structures like priority queues are used for scheduling the jobs in the operating system.
- **Compiler design**- the tree data structure is used in parsing the source program. Stack data structure is used in handling recursive calls.
- **Database management systems**- The file data structure is used in database management systems. Sorting and searching techniques can be applied on these data in the file.
- **Numerical analysis package**- the array is used to perform the numerical analysis on the given set of data.
- **Graphics**- the array and the linked list are useful in graphics applications.
- **Artificial intelligence**- the graph and trees are used for the applications like building expression trees, game playing.

7. What is a linked list?

A linked list is a set of nodes where each node has two fields 'data' and 'link'. The data field is used to store actual piece of information and link field is used to store address of next node.

8. What are the pitfall encountered in singly linked list?

Following are the pitfall encountered in singly linked list

- The singly linked list has only forward pointer and no backward link is provided. Hence the traversing of the list is possible only in one direction. Backward traversing is not possible.
- Insertion and deletion operations are less efficient because for inserting the element at desired position the list needs to be traversed. Similarly, traversing of the list is required for locating the element which needs to be deleted.

UNIT I –LISTS

9. Define doubly linked list.

Doubly linked list is a kind of linked list in which each node has two link fields. One link field stores the address of previous node and the other link field stores the address of the next node.

10. Write down the steps to modify a node in linked lists.

- Enter the position of the node which is to be modified.
- Enter the new value for the node to be modified.
- Search the corresponding node in the linked list.
- Replace the original value of that node by a new value.
- Display the messages as "the node is modified".

11. Difference between arrays and lists.

In arrays any element can be accessed randomly with the help of index of array, whereas in lists any element can be accessed by sequential access only. Insertion and deletion of data is difficult in arrays on the other hand insertion and deletion of data is easy in lists.

12. State the properties of LIST abstract data type with suitable example.

Various properties of LIST abstract data type are

(i) It is linear data structure in which the elements are arranged adjacent to each other.

(ii) It allows storing single variable polynomial.

(iii)If the LIST is implemented using dynamic memory then it is called linked list. Example of LIST are- stacks, queues, linked list.

13. State the advantages of circular lists over doubly linked list.

In circular list the next pointer of last node points to head node, whereas in doubly linked list each node has two pointers: one previous pointer and another is next pointer. The main advantage of circular list over doubly linked list is that with the help of single pointer field we can access head node quickly. Hence some amount of memory get saved because in circular list only one pointer is reserved.

14. What are the advantages of doubly linked list over singly linked list?

The doubly linked list has two pointer fields. One field is previous link field and another is next link field. Because of these two pointer fields we can access any node efficiently whereas in singly linked list only one pointer field is there which stores forward pointer.

15. Why is the linked list used for polynomial arithmetic?

Separate fields for coefficient and exponent are used representing each term of polynomial. Hence there is no limit for exponent. We can have any number as an exponent.

16. What is the advantage of linked list over arrays?

The linked list makes use of the dynamic memory allocation. Hence the user can allocate or de allocate the memory as per his requirements. On the other hand, the array makes use of the static memory location. Hence there are chances of wastage of the memory or shortage of memory for allocation.

17. What is the circular linked list?

The circular linked list is a kind of linked list in which the last node is connected to the first node or head node of the linked list.

18. What is the basic purpose of header of the linked list?

The header node is the very first node of the linked list. Sometimes a dummy value such - 999 is stored in the data field of header node. This node is useful for getting the starting address of the linked list.

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UNIT I -LISTS

19. What is the advantage of an ADT?

➢ **Change:** the implementation of the ADT can be changed without making changes in the client program that uses the ADT.

➢ **Understandability:** ADT specifies what is to be done and does not specify the implementation details. Hence code becomes easy to understand due to ADT.

➢ **Reusability:** the ADT can be reused by some program in future.

20. What is static linked list? State any two applications of it.

➢ The linked list structure which can be represented using arrays is called static linked list.

➢ It is easy to implement, hence for creation of small databases, it is useful.

➢ The searching of any record is efficient, hence the applications in which the record need to be searched quickly, the static linked list are used.

PART B

1. Explain the insertion operation in linked list. How nodes are inserted after a specified node.
2. Write an algorithm to insert a node at the beginning of list?
3. Discuss the merge operation in circular linked lists.
4. What are the applications of linked list in dynamic storage management?
5. How polynomial expression can be represented using linked list?
6. What are the benefit and limitations of linked list?
7. Define the deletion operation from a linked list.
8. What are the different types of data structure?
9. Explain the operation of traversing linked list. Write the algorithm and give an example.

4. State the polynomial representation using linked list. Write procedure to declare, create and add two polynomials. Perform addition operation on the following polynomials $5x^5+6x^4+2x^3$ and $8x^6+3x^3+4x+5$.

AAMEC-DEPT OF CSE | CS3301-Data Structures | Mrs.G.Kalaiselvi AP/CSE | 23

Sample Course Material for First Unit of CS8592-Object Oriented Analysis and Design

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI-614 403
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CS8592- OBJECT ORIENTED ANALYSIS AND DESIGN

STUDY MATERIAL

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

UNIT I –UNIFIED PROCESS AND USE CASE DIAGRAMS

OBJECTIVES

The student should be made to:

- To understand the fundamentals of object modeling
- To understand and differentiate Unified Process from other approaches.
- To design with static UML diagrams.
- To design with the UML dynamic and implementation diagrams.
- To improve the software design with design patterns.
- To test the software against its requirements specification

COURSE OUTCOMES

At the end of the course, the student will be able to

1. Express software design with UML diagrams
2. Design software applications using OO concepts.
3. Identify various scenarios based on software requirements
4. Transform UML based software design into pattern based design using design patterns
5. Identify with the various testing methodologies for OO software

SYLLABUS

UNIT I UNIFIED PROCESS AND USE CASE DIAGRAMS 9

Introduction to OOAD with OO Basics – Unified Process – UML diagrams – Use Case – Case study – the Next Gen POS system, Inception -Use case Modeling - Relating Use cases – include, extend and generalization -When to use Use-cases.

UNIT II STATIC UML DIAGRAMS 9

Class Diagram- Elaboration – Domain Model – Finding conceptual classes and description classes – Associations – Attributes – Domain model refinement – Finding conceptual class Hierarchies – Aggregation and Composition - Relationship between sequence diagrams and use cases – When to use Class Diagrams

UNIT III DYNAMIC AND IMPLEMENTATION UML DIAGRAM 9

Dynamic Diagrams – UML interaction diagrams - System sequence diagram – Collaboration diagram – When to use Communication Diagrams - State machine diagram and Modeling -When to use State Diagrams – Activity diagram – When to use activity diagrams

Implementation Diagrams – UML package diagram - When to use package diagrams -Component and Deployment Diagrams – When to use Component and Deployment diagrams

UNIT IV DESIGN PATTERNS 9

GRASP: Designing objects with responsibilities – Creator – Information expert – Low Coupling – High Cohesion – Controller

Design Patterns – creational – factory method – structural – Bridge – Adapter – behavioral – Strategy – observer–Applying GoF design patterns – Mapping design to code

UNIT V TESTING 9

Object Oriented Methodologies – Software Quality Assurance – Impact of object orientation on Testing – Develop Test Cases and Test Plans.

Total: 45 Periods

TEXT BOOK

1. Craig Larman, "Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development", Third Edition, Pearson Education, 2005.
2. Ali Bahrami - Object Oriented Systems Development – McGraw Hill International Edition - 1999

UNIT I –UNIFIED PROCESS AND USE CASE DIAGRAMS

REFERENCE BOOKS

1. Erich Gamma, and Richard Helm, Ralph Johnson and John Vlissides, "Design patterns: Elements of Reusable Object-Oriented Software", Addison-Wesley, 1995.
2. Martin Fowler, "UML Distilled: A Brief Guide to the Standard Object Modeling Language", Third edition, Addison Wesley, 2003.

Syllabus

UNIT I UNIFIED PROCESS AND USE CASE DIAGRAMS 9

Introduction to OOAD – Unified Process - UML diagrams – Use Case – Case study – the Next Gen POS system, Inception -Use case Modeling - Relating Use cases – include, extend and generalization -When to use Use-cases.

1.1 Introduction to OOAD with OO Basics

Analysis

- It is an investigation of the problem and requirements, rather than a solution.
- "Analysis" in requirements analysis is an investigation of the requirements

Design

- It is a conceptual solution in software and hardware that fulfills the requirements, rather than its implementation.

Object-oriented analysis

- It is an emphasis on finding and describing the objects or concepts in the problem domain.
- **Example**, in the case of the flight information system, some of the concepts include Plane, Flight, and Pilot.

Object-oriented design (or simply, object design)

- It is an emphasis on defining software objects and how they collaborate to fulfill the requirements.
- **Example**, a Plane software object may have a tailNumber attribute and a getFlightHistory method.

1.2 Unified Process

A software development process describes an approach to building, deploying, and possibly maintaining software.

The Unified Process has emerged as a popular software development process for building object-oriented systems.

In particular, the **Rational Unified Process** or RUP a detailed refinement of the Unified Process has been widely adopted.

1.2.1 Iterative Development

- In UP approach, development is organized into a series of short, fixed-length mini-projects called iterations;
- The outcome of each is a tested, integrated, and executable system.
- Each iteration includes its own requirements analysis, design, implementation, and testing activities.
- The **iterative lifecycle** is based on the successive enlargement and refinement of a system through multiple iterations, with cyclic feedback and adaptation as core drivers to converge upon a suitable system.
- The system grows incrementally over time, iteration by iteration, and thus this approach is also known as **iterative and incremental development.**

Benefits

Benefits of iterative development include:

- early rather than late mitigation of high risks (technical, requirements, objectives, usability, and so forth)

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UNIT I –UNIFIED PROCESS AND USE CASE DIAGRAMS

- early visible progress
- early feedback, user engagement, and adaptation, leading to a refined system that more closely meets the real needs of the stakeholders
- managed complexity; the team is not overwhelmed by "analysis paralysis" or very long and complex steps
- the learning within an iteration can be methodically used to improve the development process itself, iteration by iteration

1.2.2The UP Phases

A UP project organizes the work and iterations across four major phases:

1. **Inception**
2. **Elaboration**
3. **Construction**
4. **Transition**

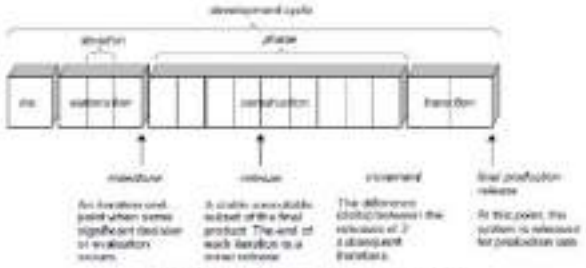


Figure1.1Schedule-oriented terms in the UP

Inception

i. Approximate vision, business case, scope, vague estimates.
ii. It is the initial short step to establish a common vision and scope for the project.
iii. It will include analysis of perhaps 10% of the use cases, analysis of the critical non-functional requirement, and creation of the business case and preparation of the development environment.
iv. The inception phase should be relatively short for most projects, such as one or a few weeks long.

Some likely **activities and artifacts** in inception includes,

- a short requirements workshop
- most actors, goals, and use cases named
- most use cases written in brief format; 10-20% of the use cases are written in fully dressed detail to improve understanding of the scope and complexity.
- Most influential and risky quality requirements are identified.
- user interface –oriented prototypes to clarify the vision of functional requirements
- Recommendations on what components to buy/build/reuse, to be refined in elaboration.
- plan for the first iteration.

Elaboration

i. Refined vision,
ii. iterative implementation of the core architecture,
iii. resolution of high risks,
iv. Identification of most requirements and scope, more realistic estimates.

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Elaboration is the initial series of iterations during which, on a normal project:

- the core, risky software architecture is programmed and tested
- the majority of requirements are discovered and stabilized
- the major risks are mitigated or retired

Elaboration often consists of two or more iterations; each iteration is recommended to be between two and six weeks.

Some key ideas and best practices will manifest in elaboration:

- do short time boxed risk-driven iterations
- start programming early
- adaptively design, implement, and test the core and risky parts of the architecture
- Adapt based on feedback from test, users and developers

Construction

i. Iterative implementation of the remaining lower risk and easier elements
ii. Preparation for deployment.

Transition

i. Beta tests, deployment, performance tuning and user training
ii. Optimization (performance improvement) should be left always at the end
iii. During transition there is no development to add functionality unless is small and absolutely essential.

1.2.3UP Disciplines

The UP describes work activities, such as writing a use case, within disciplines (**workflows**)a set of activities (and related artifacts) in one subject area, such as the activities within requirements analysis.

In the UP, an artifact is the general term for any work product:

- Code,
- Web graphics,
- Database schema,
- Text documents,
- Diagrams, models, and so on.

There are several disciplines in the UP; some artifacts focus on the following three:

1. **Business Modeling**
   a. The Domain Model artifact, to visualize noteworthy concepts in the application domain.
2. **Requirements**
   a. The Use-Case Model and Supplementary Specification artifacts to capture functional and non-functional requirements.
3. **Design**
   a. The Design Model artifact, to design the software objects.

1.3 UML diagrams

The Unified Modeling Language is a visual language for specifying, constructing and documenting the artifacts of systems [OMG03a].

The word visual is a key point the UML is the de facto standard diagramming notation for drawing or presenting pictures with some text related to software primarily OO software.

Three Ways to Apply UML

1. **UML as sketch** – Informal and incomplete diagrams created to explore difficult parts of the problem or solution space, exploiting the power of visual languages.

2. **UML as a blueprint** – Relatively detailed design diagrams used either for:
   a) **Reverse engineering** to visualize and better understanding existing code in UML diagrams
      - These "blueprints" can help the reader understand the big-picture elements, structure, and collaborations.
   b) **Code generation (forward engineering).**Before programming, some detailed diagrams can provide guidance for code generation. (E.g., in Java), either manually or automatically with a tool.
3. **UML as programming language** – Complete executable specification of a software system in UML.

UML defines **nine graphical diagrams**:

1. Class diagram (static)
2. Use-case diagram
3. Behavior diagram (dynamic):
   3.1. Interaction diagram:
      3.1.1. Sequence diagram
      3.1.2. Collaboration diagram
   3.2. State chart diagram
   3.3. Activity diagram
4. Implementation diagram:
   4.1. Component diagram
   4.2. Deployment diagram
5. Package diagram

Class diagram (static)

- The UML includes class diagrams to illustrate classes, interfaces, and their associations.
- They are used for static object modeling.
- A class diagram is a collection of static modeling elements, such as classes and their relationships, connected as a graph to each other and to their contents.
- In class diagram real world objects are mapped to logical objects in computer program.
- In a conceptual perspective the class diagram can be used to visualize a domain model.
- A common modeling term for this purpose is design class diagram (DCD).



Figure 1.2 UML Class diagram

Use-case diagram

- A use-case diagram is a graph of actors, a set of use cases enclosed by a system boundary, communication (participation) associations between the actors and the use cases, and generalization among the use cases.
- A use-case diagram shows the relationship among actors and use cases within a system.
- A use case is shown as an ellipse containing the name of the use case.
- The name of the use case can be placed below or inside the ellipse.
- Actors' names and use case names should follow the capitalization and punctuation guidelines of the model.

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- An actor is shown as a class rectangle with the label <<actor>>, or the label and a stick fig, or just the stick fig with the name of the actor below the fig.



Figure 1.3 UML Use Case Diagram

Interaction Diagrams

- The UML includes interaction diagrams to illustrate how objects interact via messages.
- They are used for dynamic object modeling.
- There are two common types: **sequence and communication interaction diagrams**.

UML Sequence Diagram

- It shows an interaction arranged in a time sequence.
- It shows the objects participating in the interaction by their lifelines and the messages they exchange, arranged in a time sequence.
- A sequence diagram has two dimensions:
  - Vertical dimension - time.
  - Horizontal dimension - different objects.
- The vertical line is called the object's *lifeline*. The *lifeline* represents the object's existence during the interaction.
- An object is shown as a box at the top of a dashed vertical line.
- Each message is represented by an arrow between the lifelines of two objects. Each message is labeled with the message name.

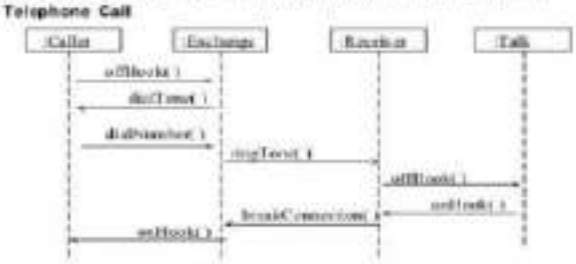


Figure 1.4 UML Sequence Diagram

UML Collaboration Diagram

- It represents collaboration, between a set of objects related in a particular context, and their interaction to achieve a desired outcome.
- Arrows indicate the message sent within the given use case.

- The sequence is indicated by numbering the messages.

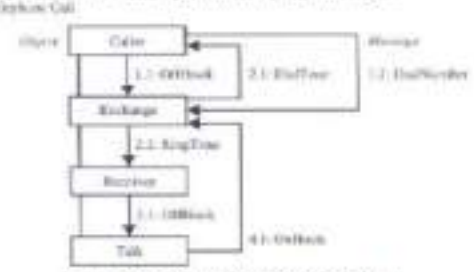


Figure 1.4 UML Collaboration Diagram

UML State chart Diagram

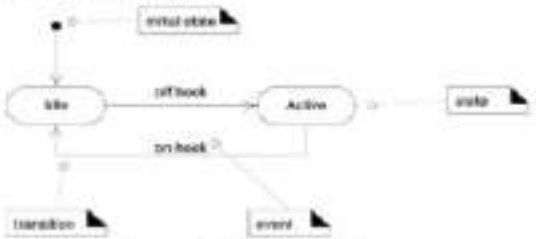


Figure 1.5 UML State chart Diagram

- UML state diagrams show a dynamic view.
- It illustrates the interesting events and states of an object, and the behavior of an object in reaction to an event.
- Transitions are shown as arrows, labeled with their event.
- States are shown in rounded rectangles.
- It is common to include an initial pseudo-state, which automatically transitions to another state when the instance is created.

UML activity diagram

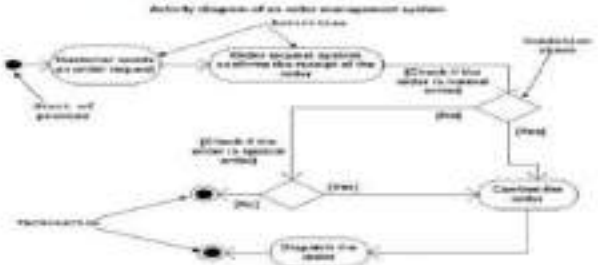


Figure 1.6 UML Activity Diagram

- It offers rich notation to show sequential and parallel activities in a process.
- They are useful for modeling business processes, workflows, data flows, use cases and complex algorithms.
- It illustrates an action, partition, fork, join, and object node.

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- Most of the notation is self-explanatory; two subtle points:
  - once an action is finished, there is an automatic outgoing transition
  - the diagram can show both control flow and data flow

Implementation Diagrams

i. It shows the implementation phase of systems development, such as the source code structure and the run-time implementation structure.
ii. These are relatively simple, high-level diagrams.
iii. There are two types of implementation diagrams,
   a. **Component diagrams** - show the structure of the code
   b. **Deployment diagrams** - show the structure of the runtime system.

a. Component diagrams

i. It models the physical components such as source code, executable program, and user interface in a design.
ii. A component is represented by the boxed figure and the design's components connected by dependency relationships usually through interfaces, which indicate one component uses the services of another.
iii. Dependency is shown as a dashed arrow.

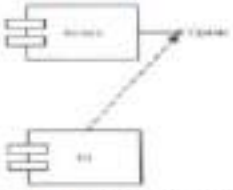


Figure 1.6 UML Component Diagram

b. Deployment diagrams

i. It shows the configuration of run-time processing elements and software components, processes, and objects that live in them.
ii. A deployment diagram is a graph of nodes connected communication association.
iii. Nodes may contain component instances, which mean the component lives or runs at that node.
iv. Each node or processing element in the system is represented three-dimensional box; connections between the nodes are show solid lines.

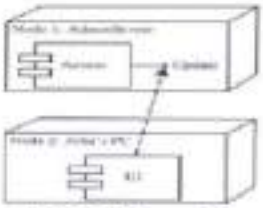


Figure 1.7 UML Deployment Diagram

UML Package Diagram

i. A package is a grouping of model elements. Packages themselv may contain other packages.
ii. All UML model elements and diagrams can be organized into packages.
iii. A package is represented as a folder, shown as a large rectangle a tab attached to its upper left corner.
iv. If contents of the package are not shown, then the name of the package is placed within the large rectangle.

v. If contents of the package are shown, then the name of the package may be placed on the tab.

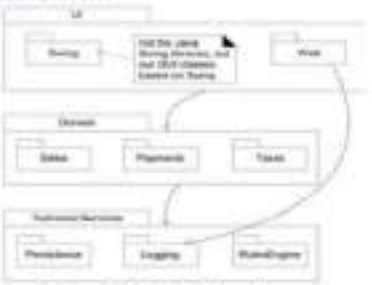


Figure 1.8 UML Package diagram

1.4 Case study – the Next Gen POS system

- A POS system is a computerized application used (in part) to record sales and handle payments; it is typically used in a retail store.
- It includes hardware components such as a computer and bar code scanner, and software to run the system.
- It interfaces to various service applications, such as a third-party tax calculator and inventory control.
- These systems must be relatively fault-tolerant;
  - that is, even if remote services are temporarily unavailable (such as the inventory system), they must still be capable of capturing sales and handling at least cash payments (so that the business is not crippled).
- A POS system increasingly must support multiple and varied client-side terminals and interfaces.
- It must provide a mechanism to provide this flexibility and customization. These include
  - a thin-client Web browser terminal,
  - a regular personal computer with something like a Java Swing graphical user interface,
  - Touch screen input,
  - Wireless PDAs (Personal Digital Assistants)

User-Level Goals

The users (and external systems) need a system to fulfill these goals:

- Cashier: process sales, handle returns, cash in, cash out
- System administrator: manage users, manage security, manage system tables
- Manager: start up, shut down
- Sales activity system: analyze sales data

Use Case UC1: Process Sale

Scope: NextGen POS application
Level: user goal
Primary Actor: Cashier
Stakeholders and Interests:
- Cashier: Wants accurate, fast entry, and no payment errors, as cash drawer shortages are deducted from his/her salary.
- Salesperson: Wants sales commissions updated.
- Customer: Wants purchase and fast service with minimal effort. Wants easily visible display of entered items and prices. Wants proof of purchase to support returns.

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- Company: Wants to accurately record transactions and satisfy customer interests. Wants to ensure that Payment Authorization Service payment receivables are recorded. Wants some fault tolerance to allow sales capture even if server components (e.g., remote credit validation) are unavailable. Wants automatic and fast update of accounting and inventory.
- Manager: Wants to be able to quickly perform override operations, and easily debug Cashier problems.
- Government Tax Agencies: Want to collect tax from every sale. May be multiple agencies, such as national, state, and county.
- Payment Authorization Service: Wants to receive digital authorization requests in the correct format and protocol. Wants to accurately account for their payables to the store.

Preconditions: Cashier is identified and authenticated.
Success Guarantee (Post conditions): Sale is saved. Tax is correctly calculated. Accounting and Inventory are updated. Commissions recorded. Receipt is generated. Payment authorization approvals are recorded.
Main Success Scenario (Basic Flow):
1. Customer arrives at POS checkout with goods and/or services to purchase.
2. Cashier starts a new sale.
3. Cashier enters item identifier.
4. System records sale line item and presents item description, price, and running total. Price calculated from a set of price rules.

Cashier repeats steps 3-4 until indicates done.
5. System presents total with taxes calculated.
6. Cashier tells Customer the total, and asks for payment.
7. Customer pays and System handles payment.
8. System logs completed sale and sends sale and payment information to the external Accounting system (for accounting and commissions) and Inventory system (to update inventory).
9. System presents receipt.
10. Customer leaves with receipt and goods (if any).

Extensions (Alternative Flows):
***a. At any time, Manager requests an override operation:**
1. System enters Manager-authorized mode.
2. Manager or Cashier performs one Manager-mode operation, e.g., cash balance change, resume a suspended sale on another register, void a sale, etc.
3. System reverts to Cashier-authorized mode.

***b. At any time, System fails:**
To support recovery and correct accounting, ensure all transaction sensitive state and events can be recovered from any step of the scenario.
1. Cashier restarts System, logs in, and requests recovery of prior state.
2. System reconstructs prior state.
   2a. System detects anomalies preventing recovery:
      1. System signals error to the Cashier, records the error, and enters a clean state.
      2. Cashier starts a new sale.

1a. Customer or Manager indicate to resume a suspended sale.
   1. Cashier performs resume operation, and enters the ID to retrieve the sale.
   2. System displays the state of the resumed sale, with subtotal.
      2a. Sale not found.
         1. System signals error to the Cashier.
         2. Cashier probably starts new sale and re-enters all items.
   3. Cashier continues with sale (probably entering more items or handling payment).

2-4a. Customer tells Cashier they have a tax-exempt status (e.g., seniors, native peoples)

   1. Cashier verifies, and then enters tax-exempt status code.
   2. System records status (which it will use during tax calculations)

3a. Invalid item ID (not found in system):
   1. System signals error and rejects entry.
   2. Cashier responds to the error.
   2a. There is a human-readable item ID (e.g., a numeric UPC):
      1. Cashier manually enters the item ID.
      2. System displays description and price.
   2a. Invalid item ID: System signals error. Cashier tries alternate method.
   2b. There is no item ID, but there is a price on the tag.
      1. Cashier asks Manager to perform an override operation.
      2. Manager performs override.
      3. Cashier indicates manual price entry, enters price, and requests standard taxation for this amount (because there is no product information, the tax engine can't otherwise deduce how to tax it).
   2c. Cashier performs Find Product Help to obtain true item ID and price.
   2d. Otherwise, Cashier asks an employee for the true item ID or price, and does either manual ID or manual price entry (see above).

3b. There are multiple of same item category and tracking unique item identity not important (e.g., 5 packages of veggie-burgers):
   1. Cashier can enter item category identifier and the quantity.

3c. Item requires manual category and price entry (such as flowers or cards with a price on them):
   1. Cashier enters special manual category code, plus the price.

3-6a. Customer asks Cashier to remove (i.e., void) an item from the purchase:
This is only legal if the item value is less than the void limit for Cashiers, otherwise a Manager override is needed.
   1. Cashier enters item identifier for removal from sale.
   2. System removes item and displays updated running total.
      2a. Item price exceeds void limit for Cashiers:
         1. System signals error, and suggests Manager override.
         2. Cashier requests Manager override, gets it, and repeats operation.

3-6b. Customer tells Cashier to cancel sale:
   1. Cashier cancels sale on System.

3-6c. Cashier suspends the sale:
   1. System records sale so that it is available for retrieval on any POS register.
   2. System presents a "suspend receipt" that includes the line items, and a sale ID used to retrieve and resume the sale.

4a. The system supplied item price is not wanted (e.g., Customer complained about something and is offered a lower price):
   1. Cashier requests approval from Manager.
   2. Manager performs override operation.
   3. Cashier enters manual override price.
   4. System presents new price.

5a. System detects failure to communicate with external tax calculation system service:
   1. System restarts the service on the POS node, and continues.
      1a. System detects that the service does not restart.
         1. System signals error.
   2. Cashier may manually calculate and enter the tax, or cancel the sale.

5b. Customer says they are eligible for a discount (e.g., employee, preferred customer):
   1. Cashier signals discount request.
   2. Cashier enters Customer identification.
   3. System presents discount total, based on discount rules.

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3c. Customer says they have credit in their account, to apply to the sale:
1. Cashier signals credit request.
2. Cashier enters Customer identification.
3. System applies credit up to price=0, and reduces remaining credit.

6a. Customer says they intended to pay by cash but don't have enough cash:
1. Cashier asks for alternate payment method.
1a. Customer tells Cashier to cancel sale. Cashier cancels sale on System.

7a. Paying by cash:
1. Cashier enters the cash amount tendered.
2. System presents the balance due, and releases the cash drawer.
3. Cashier deposits cash tendered and returns balance in cash to Customer.
4. System records the cash payment.

7b. Paying by credit:
1. Customer enters their credit account information.
2. System displays their payment for verification.
3. Cashier confirms.
3a. Cashier cancels payment step:
1. System reverts to "item entry" mode.
4. System sends payment authorization request to an external Payment Authorization Service System, and requests payment approval.
4a. System detects failure to collaborate with external system:
1. System signals error to Cashier.
2. Cashier asks Customer for alternate payment.
5. System receives payment approval, signals approval to Cashier, and releases cash drawer (to insert signed credit payment receipt).

5a. System receives payment denial:
1. System signals denial to Cashier.
2. Cashier asks Customer for alternate payment.

5b. Timeout waiting for response.
3. System signals timeout to Cashier.
4. Cashier may try again, or ask Customer for alternate payment.
6. System records the credit payment, which includes the payment approval.
7. System presents credit payment signature input mechanism.
8. Cashier asks Customer for a credit payment signature. Customer enters signature.
9. If signature on paper receipt, Cashier places receipt in cash drawer and closes it.

7c. Paying by check...
7d. Paying by debit...
7e. Cashier cancels payment step:
1. System reverts to "item entry" mode.

7f. Customer presents coupons:
1. Before handling payment, Cashier records each coupon and System reduces price as appropriate. System records the used coupons for accounting reasons.
1a. Coupon entered is not for any purchased item:
1. System signals error to Cashier.

9a. There are product rebates:
1. System presents the rebate forms and rebate receipts for each item with a rebate.

9b. Customer requests gift receipt (no prices visible):
1. Cashier requests gift receipt and System presents it.

9c. Printer out of paper:
1. If System can detect the fault, will signal the problem.
2. Cashier replaces paper.
3. Cashier requests another receipt.

1.5 Inception

- Inception is the initial short step to establish a common vision and basic scope for the project.
- It includes analysis of perhaps 10% of the use cases, analysis of the critical non-functional requirement, creation of a business case, and preparation of the development environment so that programming can start in the following elaboration phase.

The purpose of the inception phase is not to define all the requirements, or generate a believable estimate or project plan. Most requirements analysis occurs during the elaboration phase, in parallel with early production-quality programming and testing.

Example:

- In the oil business, when a new field is being considered, some of the steps include:
1. Decide if there is enough evidence or a business case to even justify exploratory drilling.
2. If so, do measurements and exploratory drilling.
3. Provide scope and estimate information.
4. Further steps...
- The inception phase is like step one in this analogy.
- In step one people do not predict how much oil there is, or how much cost or effort is needed to extract it.
- Although it would be nice to be able to answer "how much" and "when" questions without the cost and effort of the exploration, in the oil business it is understood to not be realistic.

Inception artifacts

Artifact	Comment
Vision and Business Case	Describes the high-level goals and constraints, the business case, and provides an executive summary.
Use Case Model	Describes the functional requirements. During inception, the scope of most use cases will be identified, and perhaps 10% of the use cases will be analyzed in detail.
Supplementary Specification	Describes other requirements, mostly non-functional. During inception, it is useful to have some idea of the key non-functional requirements that have will have a major impact on the architecture.
Glossary	Key domain terminology, and data dictionary.
Risk List & Risk Management Plan	Describes the risks (business, technical, resource, schedule) and ideas for their mitigation or response.
Prototypes and proof-of-concepts	To clarify the vision, and validate technical ideas.
Iteration Plan	Describes what to do in the first elaboration iteration.
Phase Plan & Software Development Plan	Low-precision guess for elaboration phase duration and effort. Tools, people, education, and other resources.
Development Case	A description of the customized UP steps and artifacts for this project. In the UP one always customizes it for the project.

1.7 USE CASES-Use case Modeling

Use cases are not diagrams, they are text stories, used to discover and record requirements.

1.7.1 Actor

An actor is something with behavior, such as a person (identified by role), computer system, or organization; for example, a cashier.

Three Kinds of Actors

1. **Primary actor**
   - has user goals fulfilled through using services of the System Under Discussion (SuD).
2. **Supporting actor**
   - provides a service to the SuD, for example, information.

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3. **Offstage actor**
   - has an interest in the behavior of the use case, but is not primary or supporting

1.7.2 Scenario

- A **scenario** is a specific sequence of actions and interactions between actors and the system.
- It is also called a **use case instance.**
- It is one particular story of using a system, or one path through the use case.

1.7.3Use case

A use case is a collection of related success and failure scenarios that describe an actor using a system to support a goal.

1.7.4 Use cases and the Use-Case Model

1. Use cases are text documents, not diagrams, and use-case modeling is primarily an act of writing text, not drawing diagrams.
2. The UP defines the Use-case Model within the requirements discipline.
3. The Use-Case Model may optionally include a UML use case diagram to show the names of use cases and actors, and their relationships.
4. This gives a nice **context diagram** of a system and its environment. It also provides a quick way to list the use cases by name.
5. Use cases are requirements, primarily **functional or behavioral requirements** that indicate what the system will do.

1.7.5 Notation

Use cases can be written in different formats and levels of formality.

1. **brief:** Terse one-paragraph summary, usually of the main success scenario. Example: Process Sale
2. **casual** Informal paragraph format. Multiple paragraphs that cover various scenarios. Example: HandleReturns
3. **fully dressed** All steps and variations are written in detail, and there are supporting sections, such as preconditions and success guarantees.

Example: Fully Dressed use case template

Use Case Section	Comment
Use Case Name	Start with a verb.
Scope	The system under design.
Level	"user-goal" or "sub function"
Primary Actor	Calls on the system to deliver its services.
Stakeholders and Interests	Who cares about this use case, and what do they want?
Preconditions	What must be true on start, and worth telling the reader?
Success Guarantee	What must be true on successful completion, and worth telling the reader?
Main Success Scenario	A typical, unconditional happy path scenario of success.
Extensions	Alternate scenarios of success or failure.
Special Requirements	Related non-functional requirements.
Technology and Data Variations List	Varying I/O methods and data formats.
Frequency of Occurrence	Influences investigation, testing, and timing of implementation.
Miscellaneous	Such as open issues.

1.7.6Applying UML: Use Case Diagrams

1. The UML provides use case diagram notation to illustrate the names of use cases and actors, and the relationships between them.
2. Use case diagrams and use case relationships are secondary in use case work. Use cases are text documents. Doing use case work means to write text.
3. A use case diagram is an excellent picture of the system context; it makes a good **context diagram** that is, showing the boundary of a system, what lies outside of it, and how it gets used.

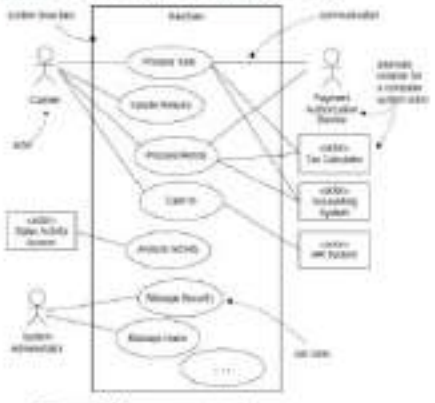


Figure 1.9 Use case context diagram

4. It serves as a communication tool that summarizes the behavior of a system and its actors.
5. Notice the actor box with the symbol «actor».
6. This style is used for UML keywords and stereotypes, and includes guillemet symbols - special single-character brackets («actor», not <<actor>>) most widely known by their use in French typography to indicate a quote.

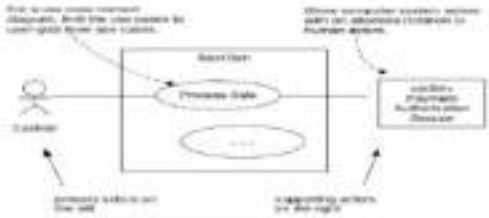


Figure 1.10.Notation suggestions

1.7.7 How to Find Use Cases

Use cases are defined to satisfy the goals of the primary actors. Hence, the basic procedure is:

1. Choose the system boundary. Is it just a software application, the hardware and application as a unit, that plus a person using it, or an entire organization?
2. Identify the primary actors: those that have goals fulfilled through using services of the system.
3. Identify the goals for each primary actor.

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4. Define use cases that satisfy user goals; name them according to their goal.

1.8 Relating Use cases – include, extend and generalization

Use cases can be related to each other. For example, a sub function use case such as *Handle Credit Payment* may be part of several regular use cases, such as *Process Sale* and *Process Rental*. Organizing use cases into relationships has no impact on the behavior or requirements of the system.

1.8.1 The include Relationship

It is common to have some partial behavior that is common across several use cases.

Include is used when repetition occurs in two or more separate use cases and that repetition must be avoided.



Figure 1.11 Use case include relationship in the Use-Case Model

For example, the description of paying by credit occurs in several use cases, including Process Sale, Process Rental, Contribute to Lay-away Plan, and so forth. Rather than duplicate this text, it is desirable to separate it into its own sub function use case, and indicate its inclusion. This is simply refactoring and linking text to avoid duplication

Example:

UC1: Process Sale

Extensions:

7b. Paying by credit: Include Handle Credit Payment

7c. Paying by check: Include Handle Check Payment

1.8.2 The extend Relationship

In extend relationships, the idea is to create an extending or addition use case, and within it, describe where and under what condition it extends the behavior of some base use case.

Example:



Figure 1.12 the extend relationship

***1.8.3* The generalize Relationship**

1. Generalization is the activity of identifying commonality among concepts.
2. Generalization is a relationship between a general use case and a more specific use case that inherits features from general use case.
3. It is shown as a solid line with a fat triangular arrow.

An operation is not a method. A UML operation is a declaration, with a name, parameters, return type, exceptions list, and possibly a set of constraints of pre-and post-conditions.

Methods

A UML method is the implementation of an operation; if constraints are defined, the method must satisfy them. A method may be illustrated several ways, including:

- in interaction diagrams, by the details and sequence of messages
- in class diagrams, with a UML note symbol stereotyped with «method»

When a UML note is used to show a method, it is mixing static and dynamic views in the same diagram. The method body (which defines dynamic behavior) adds a dynamic element to the static class diagram.

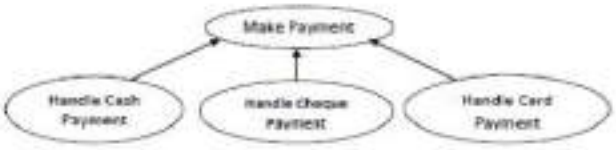


Figure 1.13GeneralizationRelationship

1.9 When to use Use-cases

- Use cases are requirements, primarily functional or behavioral requirements that indicate what the system will do.
- In the UP and many modern methods use cases are the central mechanism that is recommended for their discovery and definition.

- A related viewpoint is that a use case defines a contract of how a system will behave.
- a use case describes use of one software (or hardware plus software) system; in this case it is known as a system use case.
- At a broader scope, use cases can also describe how a business is used by its customers and partners. Such an enterprise-level process description is called a business use case.
- use cases are classified as at the user-goal level or the sub function level, among others.
- A user-goal level use case is the common kind that describe the scenarios to fulfill the goals of a primary actor to get work done; it roughly corresponds to an elementary business process (EBP) in business process engineering.
- A sub function-level use case describes sub steps required to support a user goal, and is usually created to factor out duplicate sub steps shared by several regular use cases.

UNIT I –UNIFIED PROCESS AND USE CASE DIAGRAMS

PART A

1. **What is inception?**
Inception is the initial short step to establish a common vision and basic scope for the Project. It will include analysis of perhaps 10% of the use cases, analysis of the critical non- Functional requirement, creation of a business case, and preparation of the development Environment so that programming can start in the elaboration phase.

2. **What the purpose is of extends and include relationship in use case diagram?**
Include is used when repetition occurs in two or more separate use cases and that repetition must be avoided. It is common to have some partial behavior that is common across several use cases.

In extend relationships, the idea is to create an extending or addition use case, and within it, describe where and under what condition it extends the behavior of some base use case.

3. **What is UML?**
The Unified Modeling Language is a visual language for specifying, constructing and documenting the artifacts of systems.
UML is the de facto standard diagramming notation for drawing or presenting pictures with some text related to software primarily OO software.

4. **Define OOAD.**
Object-oriented analysis and design is a popular technical approach for analyzing and designing an application, system, or business by applying object-oriented programming as well as using visual modeling throughout the development life cycles.

5. **What is analysis and design?**
Analysis emphasizes an investigation of the problem and requirements, rather than a solution.

Design emphasizes a conceptual solution (in software and hardware) that fulfills the requirements, rather than its implementation. For example, a description of a database schema and software objects.

6. **What are the three ways and perspectives to apply UML?**
Ways - UML as sketch, UML as blueprint, UML as programming language
Perspectives-Conceptual, Specification, Implementation

7. **What are the primary goals in the design of UML?**
   - Provide users a ready to use expressive visual modeling language so they can develop and exchange meaningful models.
   - Provide extensibility and specialization mechanisms to extend the core concepts.

8. **Define Design Class Diagram.**
A static view of the class definitions is usefully shown with a design class diagram. This illustrates the attributes and methods of the classes.

9. **What is the need for modeling?**
Good models are essential for communication among project teams. A modeling language includes: Model Elements, Notation, and Guidelines
Benefits:
Clarity, Familiarity, Maintenance and Simplification

10. **Define Object.**
The term object means a combination of data and logic that represents some real world entity. An object has a set of properties and a set of procedures to do with.

11. **What test can help to find useful usecases?**
The BOSS test
The EBP- Elementary Business Process test
The size test

UNIT I –UNIFIED PROCESS AND USE CASE DIAGRAMS

12. **What is UP?**
A software development process describes an approach to building, deploying and possibly maintaining software. The unified process has emerged as a popular iterative software development process for building object oriented system.

13. **List out the components of a POS system.**
Sale, Cash payment , SaleLineItem , Item, Register ,Ledger ,Cashier, Customer ,Store, Product Description, Product Catalog.
Hardware Components: Computer, Barcode Reader and printer.

14. **Distinguish between method and message in object.**

Method	Message
Methods are similar to functions, procedures or subroutines in more traditional programming languages	Message essentially are nonspecific function calls
Method is an implementation	Message is an instruction
In an object oriented system, a method is invoked by sending an object a message.	An object understands a message when it can match the message to a method that has the same name as the message.

15. **What is Object Oriented Analysis and Design?**
Object-oriented analysis
   - It is an emphasis on finding and describing the objects or concepts in the problem domain.

Object-oriented design (or simply, object design)
   - It is an emphasis on defining software objects and how they collaborate to fulfill the requirements

16. **What is a scenario?**
   - A scenario is a specific sequence of actions and interactions between actors and the system.
   - It is also called a use case instance.
   - It is one particular story of using a system, or one path through the use case.

17. **Define Use case.**
   - A use case is a collection of related success and failure scenarios that describe an actor using a system to support a goal.
   - Use cases are text documents, not diagrams, and use-case modeling is primarily an act of writing text, not drawing diagrams.

18. **Define actor.**
An actor is something with behavior, such as a person (identified by role), computer system, or organization; for example, a cashier.

19. **What is iterative evolutionary development?**
The iterative lifecycle is based on the successive enlargement and refinement of a system through multiple iterations, with cyclic feedback and adaptation to converge upon a suitable system. The system grows incrementally over time, iteration by iteration and thus this approach is also known as iterative and incremental development.

20. **What is iteration?**
A key practice in both the UP and most other modern methods is iterative development. In this lifecycle approach, development is organized into a series of short, fixed length mini projects called iterations.

21. **What is interaction diagram? Mention its types.**
The interaction diagrams illustrate how objects interact via messages.
Types:
   - Sequence diagram
   - Collaboration diagram

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UNIT I -UNIFIED PROCESS AND USE CASE DIAGRAMS

22. What are the tasks performed in elaboration?
- the core, risky software architecture is programmed and tested
- the majority of requirements are discovered and stabilized
- the major risks are mitigated or retired

23. List the principles of modeling in UML.
- The model chosen have a profound influence on the solution.
- Every model may be expressed at different levels of abstraction.
- The best models are connected in reality.
- Set of models is needed to solve any non-trivial system.

24. Outline the purpose of using use cases to describe requirements
Writing use cases is a simple intuitive means for capturing system requirements. Use cases are valuable because they keep system development focused on the needs of the end user. They also capture the requirements of a system in a form that is readable and understandable to the end user.

PART B
1. Explain in detail about unified process in OOAD? Explain the phases with neat diagram.
2. Briefly explain the different phases of unified process.
3. Explain about UML diagrams in detail with neat example.
4. Explain about use case diagrams.
5. What is the purpose of a use case model / identify the actors, scenarios and use cases for a Next Gen POS System.
6. Explain with an example, how use case modeling is used to describe functional requirements. Identify the actors, scenarios and use cases.
7. Present an outline of object oriented analysis and object oriented design.(7)

AAMEC-DEPT OF CSE CS8592-Object Oriented Analysis and Design Mrs.G.Kalaiselvi AP/CSE 21

GATE Guidance

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI-614 403
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

List of Activities

(Pertaining to GATE EXAM)

Date	Activity
27.4.2022	Circular to Faculty members through HODs
07.5.2022	Seminar for II CSE
11.5.2022	Seminar for II CSE B
12.5.2022	Seminar for II CSE A
	• Collecting Relevant Information about GATE 2023. • Formation of student group and facilitating discussion in department library. • Collection of GATE Materials as softcopy in studcommun GATE 2023 folder

Faculty Incharge

HOD – CSE

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

List of Planned Activities

(Pertaining to GATE Coaching)

Month	Activity
August 2022 – October 2022	Circular about GATE Exam Registration
	Awareness about Timeline of GATE 2023
	Orientation Session and Mock test by GATEFORUM, Trichy.
	Motivating students to register for GATE Exam through regular follow-up
	Facilitate students for GATE preparation by forming study groups.
	Group discussion among students and Doubt clearing sessions by faculty in Department library

Faculty In charge

HOD – CSE

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Event Report

Title	B.E. CSE - Opportunities and Scope for Higher studies
Speaker	Dr. T. Vigneswari, Associate Professor, Dept of CSE
Venue	Conference Hall - Anjalai Ammal Mahalingam Engineering College
Date & Time	7.5.2022, 12.20- 1.10 pm
Total Participants	89





A seminar on "Opportunities and Scope for Higher studies" was delivered to CSE -III year students. An overview about various higher studies opportunities such as M.E/ M. Tech / M.S, MBA and Ph.D was detailed to students. The seminar created awareness about time line, syllabus and question paper pattern for the qualifying exams such as GATE/ TANCET/ CAT/ GMAT. This discussion served as an eye opener for the job opportunities available in both private and public sector after completing the courses briefed during the seminar.

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CERT

Event Report

Title	B. E: CSE - Opportunities and Scope for Higher studies
Speaker	Dr. T. Vigneswari , Associate Professor, Dept of CSE
Venue	Conference Hall – Anjalai Ammal Mahalingam Engineering College
Date & Time	12.5.2022, 11.30- 12.20 pm
Total Participants	III CSE A , 38



A seminar on "Opportunities and Scope for Higher studies" was delivered to CSE -III year students. An overview about various higher studies opportunities such as M.E/ M. Tech / M.S, MBA and Ph.D was detailed to students. The seminar created awareness about time line, syllabus and question paper pattern for the qualifying exams such as GATE/ TANCET/ CAT/ GMAT. This discussion served as an eye opener for the job opportunities available in both private and public sector after completing the courses briefed during the seminar.

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GATE Subject Materials

Subject	Faculty Incharge	Signature
Engineering Mathematics • Discrete Mathematics • Linear Algebra • Calculus • Probability and Statistics	Dr.K.Balasubramanian Mr.N.Vijayakrishnan	
Digital Logic	Mr. P.Dinesh	
Computer Organization and Architecture	Dr. T. Vigneswari	
Programming and Data Structures	Mr.J.Ganesh Ms.K.Karthika	
Algorithms	Mrs.P.Immaculate Rexi Jenifer	
Theory of Computation	Mrs.R.P.Sathya	
Compiler Design	Mr.P.ManikandaPrabu	
Operating System	Mrs.G.Kalaiselvi	
Databases	Dr. K.Velmurugan	
Computer Networks	Dr.G.Nantha Kumar	

HOD-CSE

Sample Gate study material for CS8493-Operating Systems

CS8493-OPERATING SYSTEMS GATE QUESTIONS

1. Consider the following code fragment:

```
if (fork() == 0)
{ a = a + 5; printf("%d,%dn", a, &a); }
else { a = a –5; printf("%d, %dn", a, &a); }
```

Let u, v be the values printed by the parent process, and x, y be the values printed by the child process. Which one of the following is TRUE?

(A) u = x + 10 and v = y
(B) u = x + 10 and v != y
(C) u + 10 = x and v = y
(D) u + 10 = x and v != y

Answer: (C)

Explanation:

fork() returns 0 in child process and process ID of child process in parent process.
In Child (x), a = a + 5
In Parent (u), a = a – 5;
Therefore x = u + 10.
The physical addresses of 'a' in parent and child must be different. But our program accesses virtual addresses (assuming we are running on an OS that uses virtual memory). The child process gets an exact copy of parent process and virtual address of 'a' doesn't change in child process. Therefore, we get same addresses in both parent and child.

2. The atomic fetch-and-set x, y instruction unconditionally sets the memory location x to 1 and fetches the old value of x in y without allowing any intervening access to the memory location x. consider the following implementation of P and V functions on a binary semaphore .

```
void P (binary_semaphore *s) {
 unsigned y;
 unsigned *x = &(s->value);
 do {
   fetch-and-set x, y;
 } while (y);
}

void V (binary_semaphore *s) {
 S->value = 0;
}
```

Which one of the following is true?

(A) The implementation may not work if context switching is disabled in P.
(B) Instead of using fetch-and-set, a pair of normal load/store can be used
(C) The implementation of V is wrong
(D) The code does not implement a binary semaphore

Answer: (A)

Explanation:

Let us talk about the operation P(). It stores the value of s in x, then it fetches the old value of x, stores it in y and sets x as 1. The while loop of a process will continue forever if some other process doesn't execute V() and sets the value of s as 0. If context switching is disabled in P, the while loop will run forever as no other process will be able to execute V ().

any given time and for multi-threaded applications-there are multiple threads within a single process, each having their own program counter, stack and set of registers, but sharing common code, data, and certain structures such as open files.

6. Consider the methods used by processes P1 and P2 for accessing their critical sections whenever needed, as given below. The initial values of shared boolean variables S1 and S2 are randomly assigned.

Method Used by P1
while (S1 == S2) ;
Critical Section
S1 = S2;

Method Used by P2
while (S1 != S2) ;
Critical Section
S2 = not (S1);

Which one of the following statements describes the properties achieved?
A Mutual exclusion but not progress
B Progress but not mutual exclusion
C Neither mutual exclusion nor progress
D Both mutual exclusion and progress
Answer (A)
It can be easily observed that the Mutual Exclusion requirement is satisfied by the above solution. P1 can enter critical section only if S1 is not equal to S2, and P2 can enter critical section only if S1 is equal to S2. But here Progress Requirement is not satisfied. Suppose when s1=1 and s2=0 and process p1 is not interested to enter into critical section but p2 want to enter critical section. P2 is not able to enter critical section in this as only when p1 finishes execution, then only p2 can enter (then only s1 = s2 condition be satisfied). Progress will not be satisfied when any process which is not interested to enter into the critical section will not allow other interested process to enter into the critical section

7. A process executes the following code
for (i = 0; i < n; i++) fork();
The total number of child processes created is
A n
B 2n - 1
C 2n
D 2(n+1) – 1
Answer: (B)

Explanation:

```
        F0      // There will be 1 child process created by first fork
      /   \
    F1     F1   // There will be 2 child processes created by second fork
   / \    / \
 F2  F2 F2  F2  // There will be 4 child processes created by third fork
/ \  / \/ \ / \
.....           // and so on
```

If we sum all levels of above tree for i = 0 to n-1, we get $2^n - 1$. So there will be $2^n - 1$ child processes.

3. Three concurrent processes X, Y, and Z execute three different code segments that access and update certain shared variables. Process X executes the P operation (i.e., wait) on semaphores a, b and c; process Y executes the P operation on semaphores b, c and d; process Z executes the P operation on semaphores c, d, and a before entering the respective code segments. After completing the execution of its code segment, each process invokes the V operation (i.e., signal) on its three semaphores. All semaphores are binary semaphores initialized to one. Which one of the following represents a deadlock free order of invoking the P operations by the processes?

(A) X: P(a)P(b)P(c) Y:P(b)P(c)P(d) Z:P(c)P(d)P(a)

(B) X: P(b)P(a)P(c) Y:P(b)P(c)P(d) Z:P(a)P(c)P(d)

(C) X: P(b)P(a)P(c) Y:P(c)P(b)P(d) Z:P(a)P(c)P(d)

(D) X: P(a)P(b)P(c) Y:P(c)P(b)P(d) Z:P(c)P(d)P(a)

Answer: (B)

Explanation: Option A can cause deadlock. Imagine a situation process X has acquired a, process Y has acquired b and process Z has acquired c and d. There is circular wait now.
Option C can also cause deadlock. Imagine a situation process X has acquired b, process Y has acquired c and process Z has acquired a. There is circular wait now.
Option D can also cause deadlock. Imagine a situation process X has acquired a and b, process Y has acquired c. X and Y circularly waiting for each other.
Consider option A) for example here all 3 processes are concurrent so X will get semaphore a, Y will get b and Z will get c, now X is blocked for b, Y is blocked for c, Z gets d and blocked for a. Thus it will lead to deadlock.
Similarly one can figure out that for B) completion order is Z,X then Y.

4. The time taken to switch between user and kernel modes of execution be t1 while the time taken to switch between two processes be t2. Which of the following is TRUE?
A t1 > t2
B t1 = t2
C t1 < t2
D nothing can be said about the relation between t1 and t2
Answer(D)
Explanation: Process switches or Context switches can occur in only kernel mode . So for process switches first we have to move from user to kernel mode . Then we have to save the PCB of the process from which we are taking off CPU and then we have to load PCB of the required process . At switching from kernel to user mode is done. But switching from user to kernel mode is a very fast operation(OS has to just change single bit at hardware level)
Thus T1< T2

5. A thread is usually defined as a "light weight process" because an operating system (OS) maintains smaller data structures for a thread than for a process. In relation to this, which of the following is TRUE?
A On per-thread basis, the OS maintains only CPU register state
B The OS does not maintain a separate stack for each thread
C On per-thread basis, the OS does not maintain virtual memory state
DOn per-thread basis, the OS maintains only scheduling and accounting information
Answer: (C)
Explanation: Threads share address space of Process. Virtually memory is concerned with processes not with Threads.A thread is a basic unit of CPU utilization, consisting of a program counter, a stack, and a set of registers, (and a thread ID.) As you can see, for a single thread of control – there is one program counter, and one sequence of instructions that can be carried out at

Sample Gate study material for CS8492-Database Management Systems

MCQ – Single Answer DBMS GATE Questions

1. If you take these entities 'hotel room', and 'person' with a many-to-many relationship, 'lodging' as shown in the figure below.



To store information about the rent payment to be made by person(s) occupying different hotel rooms, then this information should appear as an attribute of_____

a. Hotel Room
b. Person
c. Lodging
d. None of the Above

2. From the basic ER and relational models given below, which of the statements below is "Incorrect"?

a. An attribute of an entity can be composite
b. In a row of a relational table, an attribute can have exactly one or Null value
c. An attribute of an entity can have more than one value
d. In a row of relational table, an attribute can have more than one value

3. Which of the given statements is considered "TRUE" about an SQL query?

P: An SQL query can contain a HAVING clause even if it does not have a GROUP BY clause

Q: An SQL query can contain a HAVING clause only if it has a GROUP BY clause

R: All attributes used in the GROUP BY clause must appear in the SELECT clause

S: Not all attributes used in the GROUP BY clause need to appear in the SELECT clause

a. P and R
b. P and S
c. Q and R
d. Q and S

4. An instance of a relational scheme R(A, B, C) is given with distinct values for attribute A. Can you conclude that A is a candidate key for R?

(a) True

(b) False

5. Which normal form is considered adequate for normal relational database design?

(a) 3 N F

(b) 5 N F

(c) 2 N F

(d) 4 N F

6. The following table has two attributes, A and C, where A is the primary key and C is the foreign key referencing A with on-delete cascade.

A	B
2	4
3	4
4	3
5	2
7	2
9	5
6	4

The set of all tuples that must be additionally deleted to preserve referential integrity. When the tuple (2,4) is deleted is:

(a) (3, 4) and (6, 4)

(b) (5,2) and (7,2)

(c) (5,2), (7,2) and (9,5)

(d) (3,4), (4,3) and (6,4)

7. Which of these statements below is/ are correct?

(a) SQL permits attribute names to be repeated in the same relation

(b) SQL query automatically eliminates duplicates

(c) SQL query will work if there are no indexes on the relations

(d) None of the above-mentioned

8. Given that the order of an internal node in a B+ tree, index is the maximum number of children it can have. Imagine a child pointer takes 6 bytes, the search field value takes 14 bytes, and the block size is 512 bytes. Then, what is the order of the internal node?

(a) 27

(b) 26

(c) 25

(d) 24

Working models/charts/monograms

Learning Models

Model for Tower of Hanoi



Description Charts

Description Chart for Database Management System Architecture



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Description Chart for Android Versions



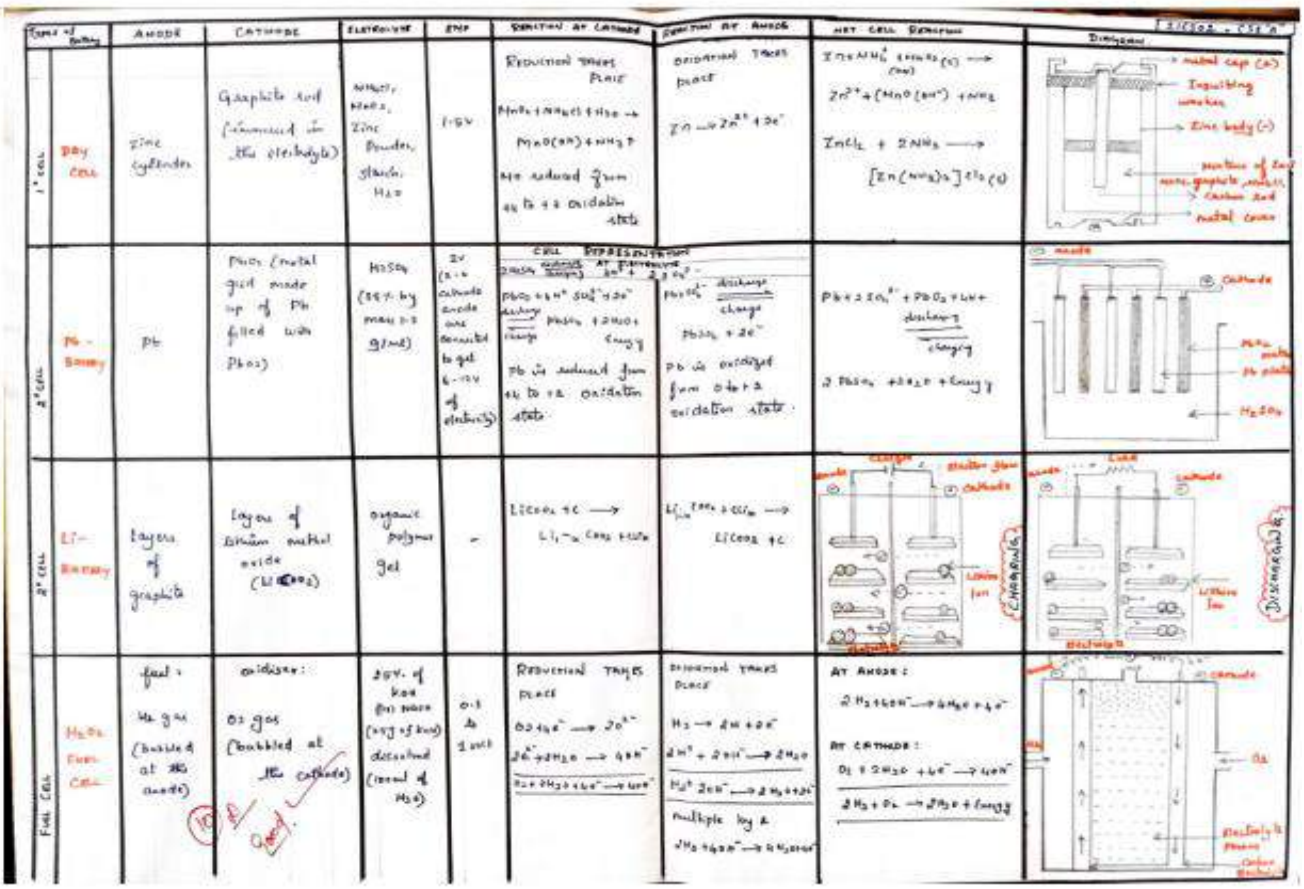
Description Chart for Mobile Computing



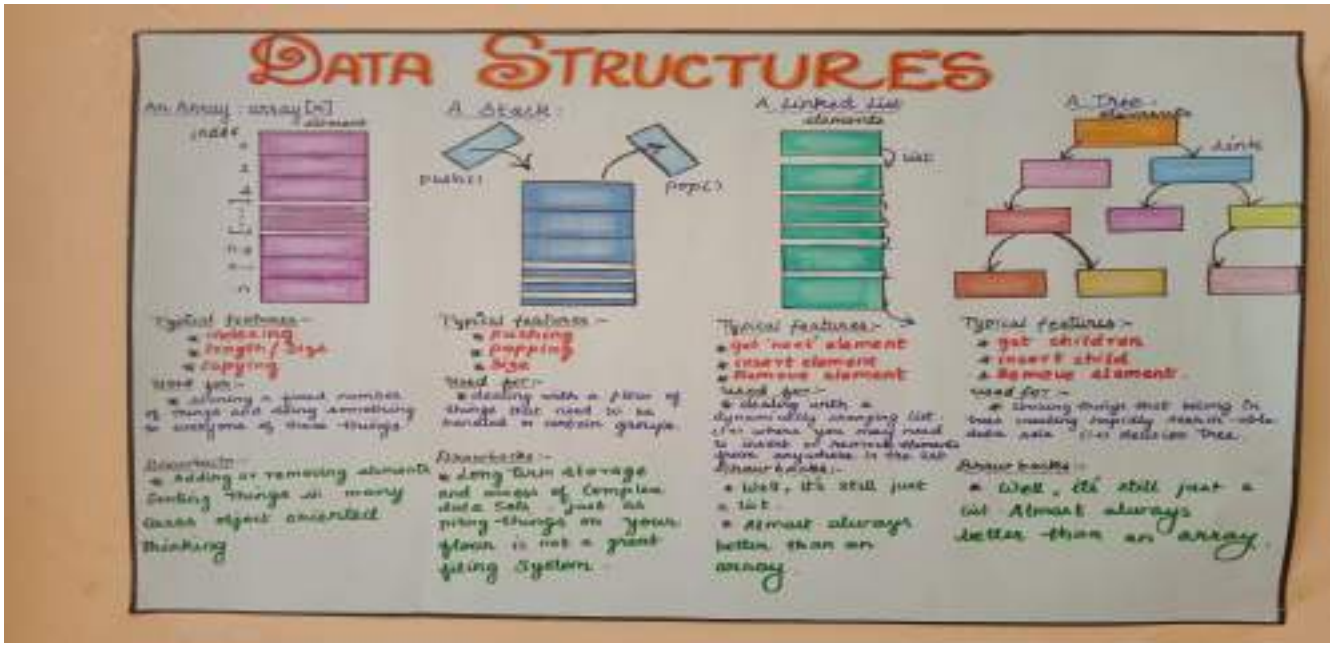
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Description Chart for types of battery



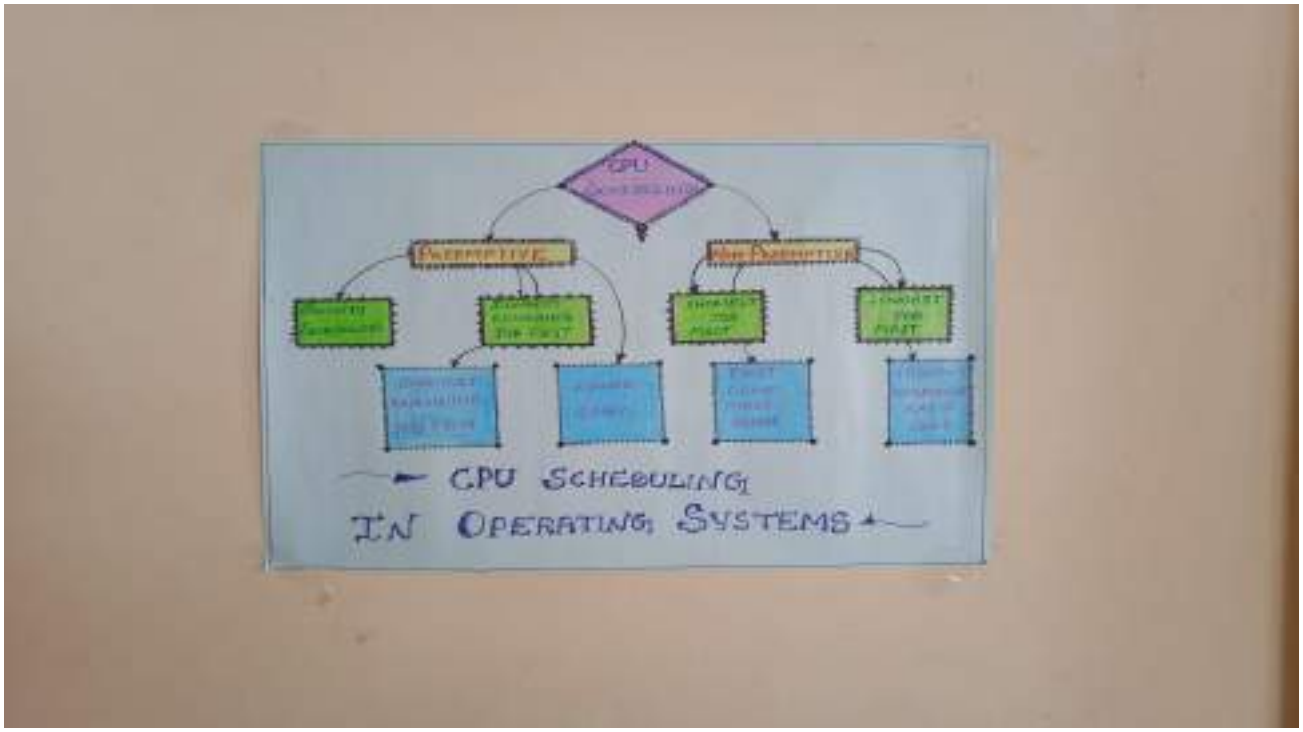
Description Chart for Data Structures



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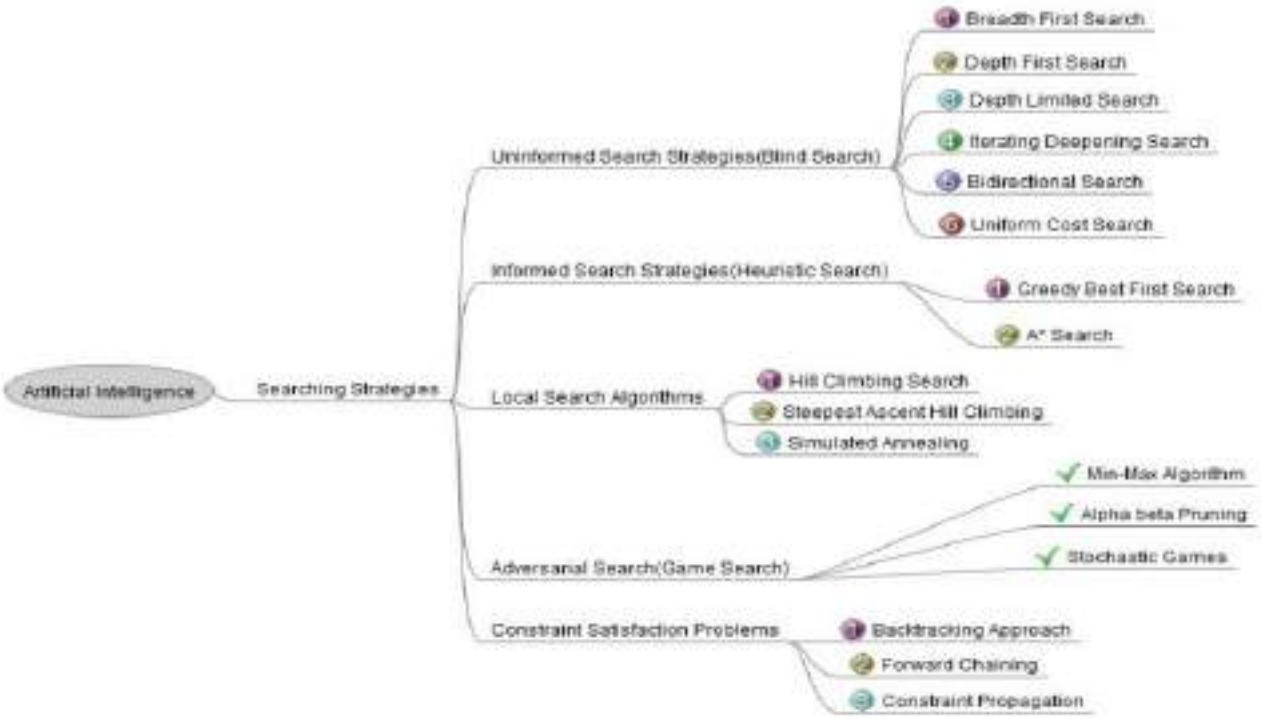
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Description Chart for Introduction to Operating Systems



Monograms

Mind Map for Artificial intelligence



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5.7.4. Consultancy (from Industry) (5)

NIL

Funding amount (Cumulative during CAYm1, CAYm2 andCAYm3):

Amount >10Lakh– 5Marks

Amount >= 8 Lakh and <=10Lakh– 4 Marks

Amount >= 6 Lakh and <8 Lakh– 3 Marks

Amount >= 4 Lakh and < 6 Lakh– 2 Marks

Amount >= 2 Lakh and < 4 Lakh– 1 Mark

Amount <2 Lakh – 0Mark

5.8. Faculty Performance Appraisal and Development System (FPADS)(30)

An effective performance appraisal system for faculty member is vital for optimizing the contribution of individual faculty to institutional performance.

Class Committee Meeting

- Every class shall have a class committee consisting of teachers of the class concerned, student representatives and a chairperson who is not teaching the class.
- At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the class committee.
- The chairperson informs the student representatives the details of regulations and also regarding weightage used for each assessment. Syllabus coverage details also explained to the student members.
- The chairperson conduct three class committee meetings in a semester and students can express the problems experienced in the teaching learning process both in theory as well as lab courses.
- If there is any problem faced by students in any course it will be taken to the knowledge of Head of the Department and Principal to initiate remedial actions in terms of additional classes, change in teaching methodology and providing additional study material etc.

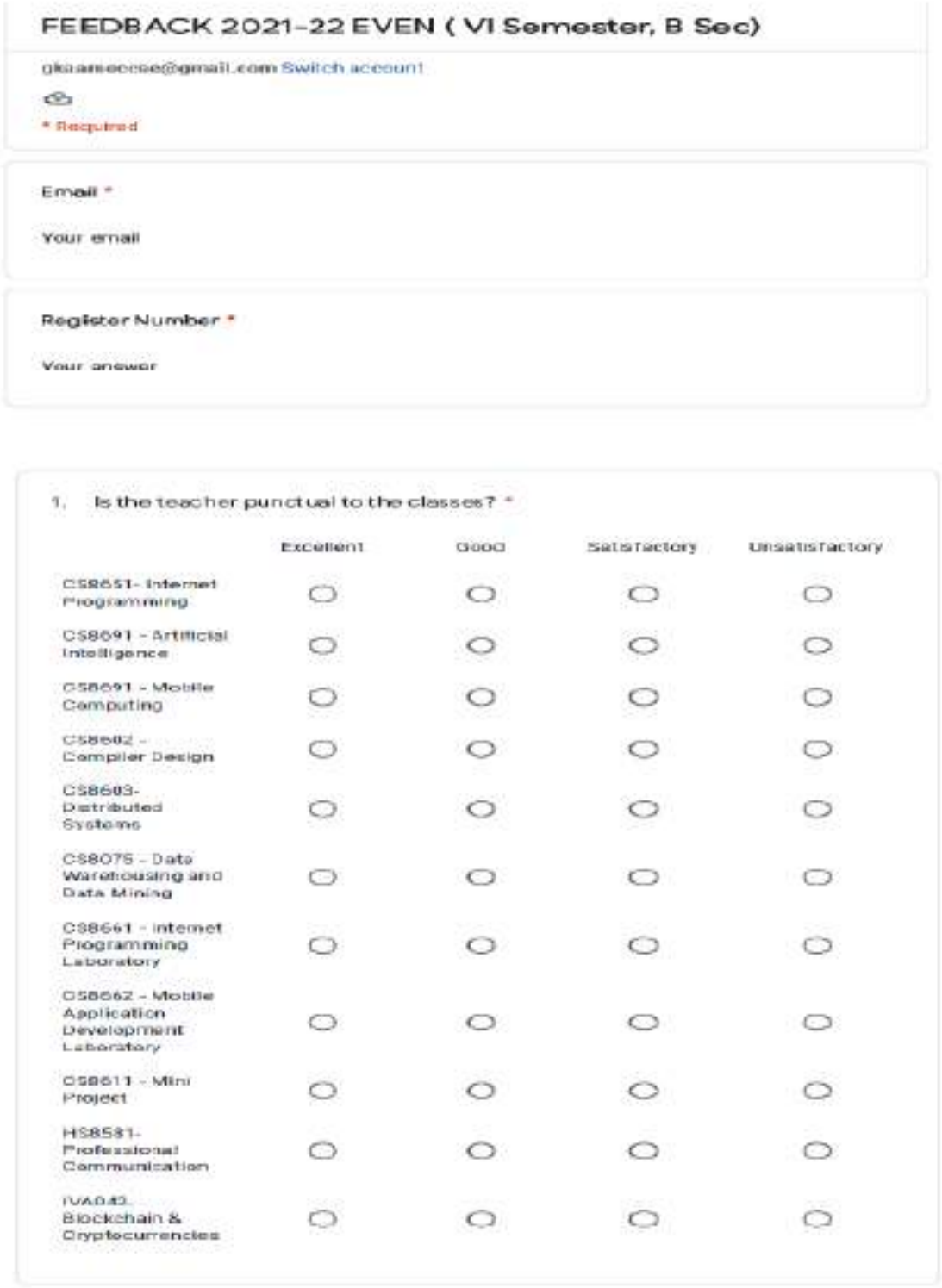
Student Feedback

The department collects feedback from the students on teaching learning process and various factors associated with teaching methodology. The student gives his/her feedback on the following,

- Teacher's punctuality
- Course Content delivery
- Effective communication
- Effective use of teaching aids
- Pace of coverage
- Support for development of skills in the particular subject
- Clarification of doubts
- Coverage of Content beyond syllabus

Based on the student's feedback on teaching performance of faculty members, suggestions are given by Head of the Department or senior faculty members to improve pedagogy of the concerned faculty member. In addition, necessary counselling and support is provided to faculty members with low rating in order to enable them to do better.

Revised Feedback Form:



FEEDBACK 2021-22 EVEN (VI Semester, B Sec)

gkaseecse@gmail.com Switch account

* Required

Email *

Your email

Register Number *

Your answer

1. Is the teacher punctual to the classes? *

	Excellent	Good	Satisfactory	Unsatisfactory
CS8651- Internet Programming				
CS8691 - Artificial Intelligence				
CS8691 - Mobile Computing				
CS8602 - Compiler Design				
CS8603- Distributed Systems				
CS8075 - Data Warehousing and Data Mining				
CS8661 - Internet Programming Laboratory				
CS8662 - Mobile Application Development Laboratory				
CS8611 - Mini Project				
HS8581- Professional Communication				
IVA042- Blockchain & Cryptocurrencies				

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2. How far is the teaching effective in terms of course content? *

	Excellent	Good	Satisfactory	Unsatisfactory
CS8651- Internet Programming	○	○	○	○
CS8691 - Artificial Intelligence	○	○	○	○
CS8691 - Mobile Computing	○	○	○	○
CS8602 - Compiler Design	○	○	○	○
CS8603 - Distributed Systems	○	○	○	○
CS8075 - Data Warehousing and Data Mining	○	○	○	○
CS8661 - Internet Programming Laboratory	○	○	○	○
CS8662 - Mobile Application Development Laboratory	○	○	○	○
CS8611 - Mini Project	○	○	○	○
HS8581- Professional Communication	○	○	○	○
IVA042- Blockchain & Cryptocurrencies	○	○	○	○

3. How effectively the teacher communicates with the students during lectures?[Audibility, Language skills, writing / drawing legibly in Board] *

	Excellent	Good	Satisfactory	Unsatisfactory
CS8651- Internet Programming	○	○	○	○
CS8691 - Artificial Intelligence	○	○	○	○
CS8691 - Mobile Computing	○	○	○	○
CS8602 - Compiler Design	○	○	○	○
CS8603- Distributed Systems	○	○	○	○
CS8075 - Data Warehousing and Data Mining	○	○	○	○
CS8661 - Internet Programming Laboratory	○	○	○	○
CS8662 - Mobile Application Development Laboratory	○	○	○	○
CS8611 - Mini Project	○	○	○	○
HS8581- Professional Communication	○	○	○	○
IVA042- Blockchain & Cryptocurrencies	○	○	○	○

4. Does the teacher use different teaching aids appropriate to the content? *

	Excellent	Good	Satisfactory	Unsatisfactory
CS8651- Internet Programming	○	○	○	○
CS8691 - Artificial Intelligence	○	○	○	○
CS8691 - Mobile Computing	○	○	○	○
CS8602 - Compiler Design	○	○	○	○
CS8603- Distributed Systems	○	○	○	○
CS8075 - Data Warehousing and Data Mining	○	○	○	○
CS8661 - Internet Programming Laboratory	○	○	○	○
CS8662 - Mobile Application Development Laboratory	○	○	○	○
CS8611 - Mini Project	○	○	○	○
HS8581- Professional Communication	○	○	○	○
IVA042- Blockchain & Cryptocurrencies	○	○	○	○

5. Pace on which the contents are covered *

	Excellent	Good	Satisfactory	Unsatisfactory
CS8651- Internet Programming	○	○	○	○
CS8691 - Artificial Intelligence	○	○	○	○
CS8691 - Mobile Computing	○	○	○	○
CS8602 - Compiler Design	○	○	○	○
CS8603- Distributed Systems	○	○	○	○
CS8075 - Data Warehousing and Data Mining	○	○	○	○
CS8661 - Internet Programming Laboratory	○	○	○	○
CS8662 - Mobile Application Development Laboratory	○	○	○	○
CS8611 - Mini Project	○	○	○	○
HS8581- Professional Communication	○	○	○	○
IVA042- Blockchain & Cryptocurrencies	○	○	○	○

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6.Does the teacher offer support for development of skills in the particular subject?{Practical training, Hands on training] *

	Excellent	Good	Satisfactory	Unsatisfactory
CS8651- Internet Programming	○	○	○	○
CS8691 - Artificial Intelligence	○	○	○	○
CS8691 - Mobile Computing	○	○	○	○
CS8602 - Compiler Design	○	○	○	○
CS8603- Distributed Systems	○	○	○	○
CS8075 - Data Warehousing and Data Mining	○	○	○	○
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IVA042- Blockchain & Cryptocurrencies	○	○	○	○

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7. Does the teacher allow student to interact effectively during lecture hours? *

	Always	Often	Rarely	Never
CS8651- Internet Programming	○	○	○	○
CS8691 - Artificial Intelligence	○	○	○	○
CS8691 - Mobile Computing	○	○	○	○
CS8602 - Compiler Design	○	○	○	○
CS8603- Distributed Systems	○	○	○	○
CS8075 - Data Warehousing and Data Mining	○	○	○	○
CS8661 - Internet Programming Laboratory	○	○	○	○
CS8662 - Mobile Application Development Laboratory	○	○	○	○
CS8611 - Mini Project	○	○	○	○
HS8581- Professional Communication	○	○	○	○
IVA042- Blockchain & Cryptocurrencies	○	○	○	○

8. Your teacher is clear and intelligible in his explanations. *

	Excellent	Good	Satisfactory	Unsatisfactory
CS8651- Internet Programming	○	○	○	○
CS8691 - Artificial Intelligence	○	○	○	○
CS8691 - Mobile Computing	○	○	○	○
CS8602 - Compiler Design	○	○	○	○
CS8603- Distributed Systems	○	○	○	○
CS8075 - Data Warehousing and Data Mining	○	○	○	○
CS8661 - Internet Programming Laboratory	○	○	○	○
CS8662 - Mobile Application Development Laboratory	○	○	○	○
CS8611 - Mini Project	○	○	○	○
HS8581- Professional Communication	○	○	○	○
IVA042- Blockchain & Cryptocurrencies	○	○	○	○

9. Is the teacher willing to help offer help and advice to students? *

	Always	Often	Rarely	Never
CS8651- Internet Programming	○	○	○	○
CS8691 - Artificial Intelligence	○	○	○	○
CS8691 - Mobile Computing	○	○	○	○
CS8602 - Compiler Design	○	○	○	○
CS8603- Distributed Systems	○	○	○	○
CS8075 - Data Warehousing and Data Mining	○	○	○	○
CS8661 - Internet Programming Laboratory	○	○	○	○
CS8662 - Mobile Application Development Laboratory	○	○	○	○
CS8611 - Mini Project	○	○	○	○
HS8581- Professional Communication	○	○	○	○
IVA042- Blockchain & Cryptocurrencies	○	○	○	○

10. Has the teacher covered relevant topics beyond syllabus? *

	Always	often	Rarely	Never
CS8651- Internet Programming	○	○	○	○
CS8691 - Artificial Intelligence	○	○	○	○
CS8691 - Mobile Computing	○	○	○	○
CS8602 - Compiler Design	○	○	○	○
CS8603- Distributed Systems	○	○	○	○
CS8075 - Data Warehousing and Data Mining	○	○	○	○
CS8661 - Internet Programming Laboratory	○	○	○	○
CS8662 - Mobile Application Development Laboratory	○	○	○	○
CS8611 - Mini Project	○	○	○	○
HS8581- Professional Communication	○	○	○	○
IVA042- Blockchain & Cryptocurrencies	○	○	○	○

Self-Assessment Cum Performance Appraisal Assessment
2018-2019

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE, KOVILVENNI – THIRUVARUR DIST. 614 403

FACULTY REVIEW 2018 – 2019

Personal Details

Name of the staff	Department	Designation	Date of joining
G.KALAISELVI	CSE	ASSISTANT PROFESSOR	19.06.2013

Academic Particulars

Course / Institution	SSLC	HSC/Diploma	B.E/B.Tech	M.E/M.Tech	Ph.D
	St.Joseph's Girls Higher Secondary School, Thanjavur	St.Joseph's Girls Higher Secondary School, Thanjavur	Periyar Maniammai College of Engineering and Technology for Women, Vallam, Thanjavur	K.S.Rangasamy College of Technology, Tiruchengode.	Written Test Cleared and Qualified for Interview.
% of marks	90.2	81.08	71	8.27(CGPA)	
Any Recognitions					

Experience Details

Period	Institution	Max. Salary	Remarks
18.06.2012 To 25.05.2013	Parisutham Institute of Technology and Science, Thanjavur	Rs.24000	

Subjects Handled and Results produced (Theory only)

Semester	Name of the subject	Class	Strength	% Pass
ODD 18-19	CS6502-Object Oriented Analysis and Design	III CSE A	44	76.74
	CS6502-Object Oriented Analysis and Design	III CSE B	50	78
Even 17-18	CS6401-Operating Systems	II CSE A	44	77.27
	CS6401-Operating Systems	II CSE B	51	86.27

Salary and Increments

Jan 2019	July 2018	Jan 2018	July 2017	Jan 2017
34238	34238	32738	32738	31784
July 2016	**Jan 2016**	**July 2015**	**Jan 2015**	**July 2014**
31784	26330	25330	26330	26330

Additional Responsibilities

Anna University Affiliation, AMC in-charge, CSI Student Chapter member, IQAC member, Admission Cell Member.

Any additional pay being received now? NIL

Any punishment imposed? NIL

Any other points to be communicated?

Signature

13.06.19
Date

HoD

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Self-Assessment Cum Performance Appraisal Assessment
2020-2021

PART A: GENERAL INFORMATION AND ACADEMIC BACKGROUND

Sl.No	Faculty Information	
1.	Name (in Block Letters):	G.KALAISELVI
2.	Department:	Computer Science and Engineering
3.	Current Designation:	Assistant Professor
4.	Date of Birth :	05.10.1984
5.	Age:	36
6.	PAN Number:	FBPPK5638R
7.	Aadhar Number:	602904676240
8.	Date of joining at AAMEC:	19.06.2013
9.	Date of Last Promotion:	NIL
10.	Permanent Address (with Pin code):	No: 118,8th cross Co-operative colony, Thanjavur-613007.
11.	Mobile Number:	9597797101

13. Academic Qualifications (Matric till Post graduation):

Examinations	Name of the Board/University	Year of Passing & Mode	Percentage of Marks/CGPA obtained	Specialization
SSLC	StateBoard,Tamilnadu	2000,FT	90.2	Tamil,English,Maths,Science, Social
HSC	StateBoard,Tamilnadu	2002,FT	81.08	Maths ,Biology
B.E.	AnnaUniversity,Chennai	2010,FT	71	CSE
M.E.	AnnaUniversity,Chennai	2012,FT	8.27	CSE

12. Research Degree(s):

Degree	Title of the Research
Ph.D.(Pursuing)	Wireless sensor Networks and Machine Learning

13. Appointments held:

Sl.No	Designation	Name of Employer	Period	Reason of Leaving
1.	Assistant Professor	Parisutham Institute of Technology and Science	18.06.2012 to 25.05.2013	Family Concern

14.	Period of Teaching Experience at AAMEC:	8 years
15.	Period of Teaching Experience in other institutions:	1 year

16.	Research Experience excluding years spent for doing M.Phil/Ph.D : NIL a) Abroad (Post-Doc, Research Scientists etc.) b) In India	
17.	Field of Specialization under the Subject/Discipline:	Operating Systems ,Object Oriented Analysis and Design, Computer Architecture
18.	Awards/Recognition Received:	NIL
19.	Convicted in any Disciplinary Issues (incl.issue of Memos):	NIL
20.	Work Load :	2 Theory +2 Lab

PART B: ACADEMIC PERFORMANCE INDICATOR

CATEGORY I: Teaching, Learning and Evaluation Related Actions

Sl.No	Sem	Course Code	Theory Course Title	Class	Class Strength	No.of hrs/ week	Pass Percentage					
							IAT I	IAT II	IAT III	ESE	Overall	Score
1.	05	CS8592	Object Oriented Analysis and Design	III	41	6	100	100	100	100	100	20
2.	05	CS8592	Object Oriented Analysis and Design	III	41	6	100	100	100	100	100	20
3.	04	CS8493	Operating Systems	II	43	6	100	97	88	100	96.25	20
4.	04	CS8493	Operating Systems	II	42	6	100	97	97	95	97.25	20

1.1Teaching Load:

Academic Year: 2020-2021

1.2Quality of Academic work:

a) **Completeness of Course File**

Sl.No	Nature of the Activity	Weightage	Self Score
1.	Course plan is OBE based	10	10
2.	Lecture plan is strictly adhered	10	10
3.	Lecture notes updated for all units	10	10
4.	Details of class test/Quiz/tutorials/question bank/model question paper etc.	10	10
5.	Proof of topics taught beyond syllabus	10	10
6.	Availability of sample answer book for IAT-I to III, Assignments given etc.	10	10
7.	Analysis of IAT-I,II,III results and action plan	10	10
	Quality of Assignments		
8.	Assignments are given on each unit	10	10
9.	Specific constructive comments are given on assignment	10	10

10.	Quality of Questions & Self Learning is ensured through assignment	10	10

b) **Laboratory Courses**

Sl.No	Nature of the Activity	Weightage	Self Score
11.	Lab Manual content is adequate in terms of basic Principles and Procedure used	10	10
12.	Constructive Suggestions are given to students in analysis of experimental results	10	10
13.	Relevant PO assessment(such as team work, communication skill,etc) are properly assessed using rubrics	10	10

1.3 Participatory and Innovative Teaching/Learning Methodologists

Sl.No	Nature of the Activity	Weightage	Self Score
1.	Quality of e-learning material	20	20
2.	Extent use of NPTEL/other on-line resources	20	15
3.	Encouragement of participative learning	20	20
4.	Extent use of experimental learning	30	10
5.	Extent use of Smart Board /ICT facilities	20	15
6.	Use of Virtual lab	15	NA

1.4 Details of Catering Slow Learners, Average Learners and Fast Learners

Sl.No	Nature of the Activity	Weightage	Self Score
1.	Identification of slow learners	5	5
2.	Analysis of performance of slow learners in class tests /seminars	15	15
3.	Extent support offered to improve slow learners	20	20
4.	Identification of average learners	5	5
5.	Analysis of performance of average learners in class tests /seminars	15	15
6.	Extent support offered to improve average learners	20	20
7.	Identification of fast / advanced learners	5	5
8.	Analysis of performance of fast / advanced learners in class tests /seminars	15	15
9.	Extent support offered to improve fast / advanced learners	20	20

1.5 Details of Questions Paper Setting and Evaluation

Sl.No	Nature of the Activity	Weightage	Self Score
1.	Question paper framed based on Blooms Taxonomy/OBE	15	15
2.	Question paper is free from grammatical and technical mistakes/error	10	10
3.	Question paper tests the preparedness of students for competitive exams like GATE	25	20
4.	There is no repetition /similarities in the past three year in the course	10	08

5.	Question papers can be solved by students in stipulated time	5	5
6.	Evaluation is done systematically based on answer key	15	15
7.	Invigilation duty	20	20

CATEGORY-II: Co-Curricular, Extension and Professional Development related Activity

2.1 Student-based Co-curricular activities/Nature of Duty

Sl.No	Nature of the Activity	Weightage	Self Score
1.	Students Counselling through FAS	20	20
2.	Class Coordinator	20	20
3.	Coaching Classes for GATE /CAT/GRE etc.	20	8
4.	Joint Publications with students		
	Journal Publications	20	20
	Conference Publications	20	0
5.	Joint Patent with students	20	0
6.	Participation in students industrial visit	20	0
7.	Community Based Projects	20	0
8.	Association in student Fine Arts Association/ Cultural Clubs/ etc.	20	0
	Any other Contribution (each carries 20 marks wt)		

CATEGORY-III: Contribution in Administrative activities and Organizing Events

3.1 Contribution to Administrative Activities

Sl.No	Nature of the Duty	Contribution made	Weightage	Self Score
1.	Anna University Affiliation	Department representative	100	100
2.	IQAC	Department representative		

CATEGORY-IV: Research, Consultancy and Extension Activities

Sl.No	Nature of the Duty	Weightage	Self Score
1.	Publications in international Journal	60	40
2.	Publications in the Conference	60	0
3.	Details of UG /PG Project Guiding	40	40
4.	Societal Contributions	40	0

4.1Organizing / Attending Events

Sl.No	Nature of the Duty	No.of Events /Membership Details	Weightage	Self Score
1.	Domain Specific Seminar /Workshop	1	20	10

2.	Research Related Workshop/Seminar	5	20	20
3.	Quality Related Workshop/Seminar	1	20	20
4.	International Conference /National Conferences Participated	-	20	0
5.	FDP Attended	6	20	20
6.	Keynote /Guest Lecture Delivered	-	25	0
7.	Training /Certification Courses (NPTEL,etc)	-	30	0
8.	Honors /Recognition	-	35	0
9.	Membership in Associations / Professional Bodies	MISTE-LM88513 CSI-7133220003	10	10
10.	Any other Events Participated	-	-	-

PEER EVALUATION FORM

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
KOYILVENNI - 614 403.
(An ISO Certified Institution)

EVALUATION OF FACULTY BY PEERS

Department: Computer Science and Engineering Date: 12/2/2020

Name of the Faculty: K. PAZHANIVEL

Name of the evaluating peer: P. DINESH AP/CSE

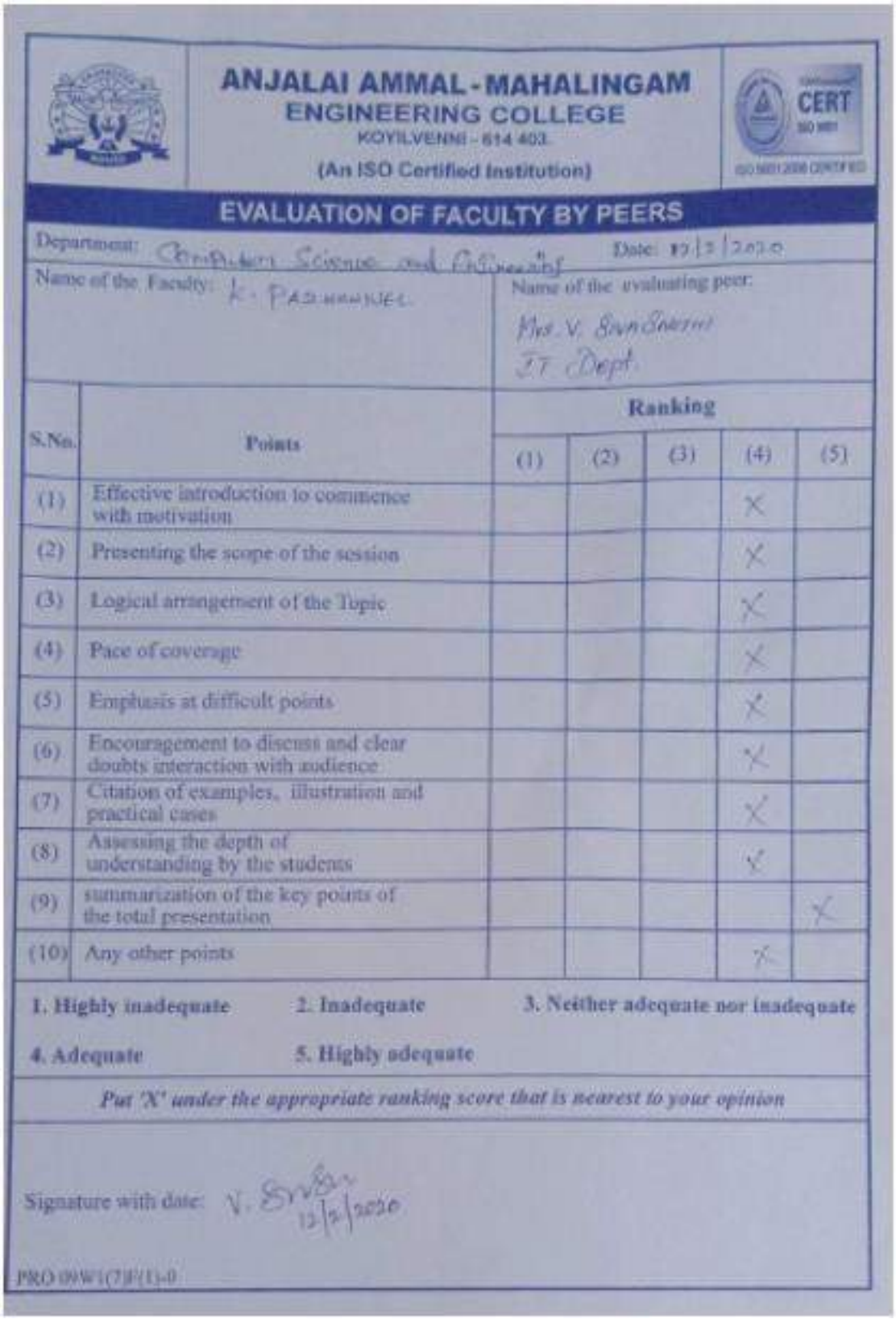
S.No.	Points	Ranking (1)	(2)	(3)	(4)	(5)
(1)	Effective introduction to commence with motivation				X	
(2)	Presenting the scope of the session				X	
(3)	Logical arrangement of the Topic				X	
(4)	Pace of coverage				X	
(5)	Emphasis at difficult points				X	
(6)	Encouragement to discuss and clear doubts interaction with audience				X	
(7)	Citation of examples, illustration and practical cases				X	
(8)	Assessing the depth of understanding by the students					X
(9)	summarization of the key points of the total presentation					X
(10)	Any other points					X

1. Highly inadequate 2. Inadequate 3. Neither adequate nor inadequate
4. Adequate 5. Highly adequate

Put 'X' under the appropriate ranking score that is nearest to your opinion

Signature with date: 12/2/20

PEO 09W1(7)(c)1-0



ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI - 614 403.
(An ISO Certified Institution)

EVALUATION OF FACULTY BY PEERS

Department: Computer Science and Engineering Date: 12/2/2020

Name of the Faculty: K. PADMAVATHI

Name of the evaluating peer:
Mrs. V. Sivasankari
IT Dept.

S.No.	Points	Ranking (1)	(2)	(3)	(4)	(5)
(1)	Effective introduction to commence with motivation				X	
(2)	Presenting the scope of the session				X	
(3)	Logical arrangement of the Topic				X	
(4)	Pace of coverage				X	
(5)	Emphasis at difficult points				X	
(6)	Encouragement to discuss and clear doubts interaction with audience				X	
(7)	Citation of examples, illustration and practical cases				X	
(8)	Assessing the depth of understanding by the students				X	
(9)	summarization of the key points of the total presentation					X
(10)	Any other points				X	

1. Highly inadequate 2. Inadequate 3. Neither adequate nor inadequate
4. Adequate 5. Highly adequate

Put 'X' under the appropriate ranking score that is nearest to your opinion

Signature with date: V. Sivasankari 12/2/2020

PRO 09W1(7)F(1)-0

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Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

EVALUATION BY THE HEAD OF THE DEPARTMENT

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI - 614 403.
(An ISO Certified Institution)

EVALUATION OF FACULTY BY HOD

Department : CSE Date : 13/5/24

Name of the faculty : K. Pazhanivel

Name of HOD : Dr. K. Velmurugan

S.No.	Points	Ranking (1)	(2)	(3)	(4)	(5)
1.	Accepting responsibility					X
2.	Co-operating with colleagues				X	
3.	Work attendance					X
4.	Accepting advice				X	
5.	Supervising ability			X		
6.	Desire to learn and improve				X	
7.	Accepting new assignments				X	
8.	Completing the job on time					X
9.	Display of professional ethics				X	
10.	Any other points					

1. Very poor 2. Poor 3. Average 4. Good 5. Excellent

Put 'X' under the appropriate ranking score that is nearest to your opinion.

Read each point for evaluation, understand it, recapitulate and analyze the state of the matter relevant to each item and then assign the ranking.

Signature with date : 13/5/24

PRO 09W1(T)F(1)-0

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5.9. Visiting/Adjunct/Emeritus Faculty etc. (10)

Adjunct faculty also includes Industry experts. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty etc. for all the assessment years:

- Provision of inviting/having visiting/adjunct/emeritus faculty(1)
- Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc.

Vuram Enable Uplift Program for the students conducted by Vuram Technologies in FOSS LAB by industry expert Mr. Silambarasan

Skills	Concepts	Subject Name	Topics in Details
Basics	Basics of Computer	Fundamentals of Computer	History of Computers Hardware Software Other devices Few commands that used in command prompt How to install a software? How to install a OS? What is OS? CPU RAM Hard Drives I/O devices How to secure a computer? Excel/Word/Powerpoint usage
Database	Database	DBMS PHP/MYSQL	Database Types of Database Tools used to access Database Tables/View DDL (Create, Alter, Drop...) DML(Select, Insert, Update, Delete...) DCL (Grant, Revoke..) Joins(Inner, Outer, Left Outer, Right Outer, Full Outer, Cross Join) Date Functions Math Functions Aggregations String Functions Security in a database DB lock

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Students List - Vuram Enable Uplift Program

Sl. No	Name	Register Number	Current Employment
1.	Veenaa Rajagopal	820416104085	Vuram Technologies
2.	Subasri Manimaran	820416104702	Vuram Technologies
3.	Subathra S	820416104075	Vuram Technologies
4.	Priyangha Rajan	820416104055	Vuram Technologies
5.	Nithya Sri	820416104050	Vuram Technologies
6.	Abinaya V	820416104004	Vuram Technologies
7.	Abarna N	820416104002	TCS
8.	Yukesh Raaj S	820417104077	Vuram Technologies
9.	Harini S	820417104018	Vuram Technologies
10.	Nusrath Jahan A B	820417104040	Higher Studies
11.	Ragamaliga P	820417104048	Vuram Technologies
12.	A.G.sudheshna	820417104071	Vuram Technologies
13.	Divyadharani A K	820417104014	Vuram Technologies
14.	Preethi R	820417104045	Postal Department
15.	Monica T	820417104032	Vuram Technologies

Table B.5.7.9.1 List of Students



CRITERION 6

FACILITIES AND TECHNICAL SUPPORT

CRITERION 6	FACILITIES AND TECHNICAL SUPPORT	80

6.1. Adequate and well equipped laboratories, and technical man power (30)

Sl. No.	Name of the Laboratory	No. of students per setup (Batch Size)	Name of the Important equipment	Weekly utilization status (all the courses for which the lab is utilized)	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
1.	Data Science Lab	45	**Server** Dell Power Edge 2900 server - 2 Nos. Dell Optiplex 380 - 2Nos. Dell Optiplex 360 - 1 No. IBM-Server X series 200 - 1No. Total - 6 Nos. **Client** Dell Optiplex5050 - 61 Nos. Dell Optiplex 360 - 1 No Total – 62 Nos. **Printer** LIPI Tally geno6306 Line printer – 1 No. HP Laser Jet 1020 Plus – 1No. LCD Projector – 1 No. **Software** Rational Rose Suite Microsoft Campus Licence Software,Oracle,C,C++ , Java ,Python,inux,Virtual box, VMware Workstation, Cloud Environment ,Creation, Openstack, Hadoop, Coludism, GAE Launcher	**Odd Semester** . CS8582 Object Oriented Analysis and Design Laboratory - 6 hrs. . IT8761 Security Laboratory - 6 hrs. . CS8711 Cloud Computing Laboratory - 6 rs. **Even Semester** 1. CS8481 Database Management Systems Laboratory -6 hrs. 2. CS8662 Mobile Application Development Laboratory -6 hrs. 3. Mini Project work -6 hrs. 4. Project Work - 20 hrs.	Mr.Sathiyaselan.K	Technician	D.C.T. (Diploma in Computer Technology)
2.	AI Lab	45	**Server** Dell Power Edge 2900 server - 2 Nos. Dell Optiplex 5090 - 1 No. Dell Optiplex 360 –2 Nos. Total 5 Nos. **Client** Dell Optiplex 5090 -30 Nos. Dell Optiplex 5050 -24 Nos. Total 54 Nos.	**Odd Semester** 1. CS8381 Data Structures Laboratory-6 hrs. 2.CS8383 Object Oriented Programming Laboratory -6 hrs. 3. CS8581 Networks Laboratory -6 hrs. **Even Semester**	Mr.Ganesh.S	Technician	D.C.T. (Diploma in Computer Technology)

			Printer LIPI Tally geno6306 Line printer – 1 No. HP Laser Jet 1020 Plus – 1 No. **Scanner** HP Scanner -1 No. LCD Projector – 1 No. **Software** Microsoft Campus Licence Software,C,C++ ,Java, Python ,Linux,NS2	1. CS8461 Operating Systems Laboratory-6 hrs. CS8661 Internet Programming Laboratory -6 hrs.			
3.	FOSS Lab	35	Dell Optiplex 3020 -30 Nos. Dell Optiplex 5050 -5 Nos. Total -35 Nos. **Software** java/JSP/ISP,,Webserver/ApacheTomcat,MySQL/DreamweaverorEquivalent, WAMP/XAMP Hadoop	Project Work - 20 hrs.	Mr.Sathiyaselan	Technician	D.C.T. (Diploma in Computer Technology)

Table B 6.1 Laboratory Details

6.2. Additional facilities created for improving the quality of learning experience in laboratories (25)

Sl. No.	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students' are expected to have enhanced learning	Relevance to POs/PSOs
1	**Common Internet Facility**	Ethernet/WiFi Computing facility with high speed internet connection of 300 Mbps leased line, Wi –Fi speed of 100Mbps	Facility to staff and students for enhancing Teaching Learning	Throughout the semester	Gain more knowledge On the subjects in Curriculum and also content beyond syllabus, recent trends etc.,24×7 access to learning resources	PO1, PO3, PO4, PO5, PO12,PSO3
2.	**Free and open source software lab (FOSS LAB)**	To motivate the students to gain knowledge on open source software	Students can download modern software tools and free and open source software	Throughout the semester	Flexibility and freedom to the students to learn new tools and do projects	PO3, PO5, PO9, PO11, PO12 ,PSO1, PSO2

3	**LCD Projector**	Hands on training to students	To explain the Algorithm, Design and programs	Throughout the semester	Experimental learning of software and tools	PO3,PO5, PO10, PO11, PSO2, PSO3
4	**Campus wide networking**	Each lab has separate LAN Network and all the labs are interlinked through OFC, CISCO Routers	Sharing of resources within the campus	Throughout the semester	Gain work experience in Internet/Intranet environment	PO5,PO9, PO10, PO11, PO12,PSO2, PSO3
5	**Tutorial Class Room**	Utilized for problem oriented subjects with small group of students	Analytical courses are handled in this space to make the students to find solutions to the problems	Throughout the semester	Problem solving ability with individual care by faculty members	PO1, PO2, PO3, PO4, PSO1,
6	**Seminar Hall**	Utilized for organizing Guest Lectures, Seminars, Conferences, FDPs, Webinars and any other similar events	Students to gain real-time knowledge through experts from industries and academia, students themselves can do presentations like seminars, project review etc.,	Throughout the semester	Communication skills, Ability to organize meetings, seminars etc., Gain confidence to speak in groups, Placement training programmes	PO9, PO10, PO11, PO12, PSO2, PSO3
7	**Department Library**	Stacked with Books, Magazines, Project Reports etc. for the use of department students and faculty members.	Students and staff can refer text book and have a better understanding , preparing notes	Allowed to utilize in Complete semester	Core subjects, placement oriented skills	PO1, PO2, PO12,PSO3
8	**Smart class room**	To refine and maximize the learning experience.	It facilitates e-learning, classroom online videos, hands on sessions	Throughout the semester	Better illustration and understanding of technical concepts	PO5, PO10, PO12, PSO3

Table B 6.2 Additional Facilities

PHOTOGRAPH OF LABORATORIES:

DATA SCIENCE LAB









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AI LAB






FOSS LAB




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SERVER AND UPS ROOMS







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6.3. Laboratories: Maintenance and overall ambiance (10)

List of Licensed Software

Sl.No	Specifications	Versions
	OPERATING SYSTEMS	
1.	Microsoft Windows Server	2003, 2007,
2.	Microsoft Windows Professional	2010
	CLIENT SIDE SOFTWARE	
1.	Microsoft Visual Studio	6.0
2	Microsoft Visual Studio	2005,2008, and 2010
3	Microsoft Office	2007
4.	IBM Rational Suite	2003
5.	Adobe Bundle 1.Adobe Photoshop 2.Adobe Director 3.Adobe flash professional 4.Adobe Dreamweaver	CS5 11.0
	DATABASE SERVERS	
1.	Oracle	11g
	ANTIVIRUS SOFTWARE	
1.	Symantec-Endpoint protection	12

Table B.6.3.1.List of Licensed Software

List of Free and Open Source Software

Sl.No	Specifications	Versions
	OPERATING SYSTEMS	
1.	Fedora	Core3 Linux
2.	Ubuntu	14.04
	CLIENT SIDE SOFTWARES	
1.	Turbo C++	4.5
2.	Eclipse IDE With Android SDK	22.01
3.	STAR UML	5.0
4.	JAVA JDK	1.5,1.6&1.7
5.	Apache Tomcat	6&7
6.	OpenStack-Cloud Software	Liberty
7.	Hadoop	2.7.2
8.	Globus Tool kit	6.0
9.	NetBeans IDE	8.1
	BROWSERS	
1.	Internet Explorer	8
2.	Mozilla Firefox	34
3.	Google Chrome	49

Table B.6.3.2.List of Free and Open Source Software



Figure B 6.3.1. Microsoft Open Value Subscription

Laboratory Manuals are prepared and available in soft/hard copy in all labs.

The Department is equipped with three computer laboratories with total 163 Clients and 10 Servers to cater to the needs of curriculum. Salient features regarding maintenance and ambience of laboratory facilities are as follows:

1. The student-computer ratio is 1:1 with Microsoft open value subscription software.
2. Instructions containing safety, Do's & Don'ts are displayed in each lab.
3. Experienced technical staff members are available for maintenance of computer and software.
4. Regular checkup of computers / equipment is carried out as and when required and also before starting of laboratory examinations every semester.
5. Maintenance and Servicing of each lab is done periodically and a service register is maintained.
6. Department is having internet speed of 300 Mbps Leased Line and Wi –Fi speed of 100Mbps for students and Faculty usage.
7. Department is having Five 15 KVA UPS, along with batteries are used as backup facility in case of power failure.
8. Power supply supported by two 160 KVA Generator.

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9. Service register is maintained for all the labs.
10. Student's login / logout register is maintained in all laboratories.
11. Stock register with the list of computer and software available is maintained in each lab.
12. A teaching faculty and a Lab instructor are in-charge of the overall functioning / maintaining of each lab.
13. First aid kit is available in all laboratories.
14. Fire safety facility and Fire extinguishers are available in all floors.

Overall ambiance

1. Department has sufficient number of laboratories which is used throughout the year on a periodic time line basis to meet the curriculum requirements and based on requirements of the students.
2. Air-condition facility is provided in all three computer labs.
3. Sufficient Lighting facility is provided along with the natural light in every laboratory.
4. All the laboratories are equipped with white board, Internet with LCD Projector.
5. Students and faculty members are always encouraged to carryout Projects in these laboratories.
6. Separate Project Lab is available in the department for the purpose of minor/ major project projects.
7. All labs are supported by Uninterrupted Power Supply which ensures that all laboratory slots are utilized effectively.

6.4. Project laboratory (5)

The department has two labs to be utilized for project works carried out by students of all semesters. Project Laboratory enables UG students to obtain hands-on experience and to realize their project ideas as executable projects which is a part of Eighth semester curriculum. Internet facility is provided in the lab so that students can download any free and open source software and also to refer various resources available in the internet.

6.5. Safety measures in laboratories (10)

Sl. No.	Name of the Laboratory	Safety measures
1.	Data Science Lab, A I Lab, FOSS Lab	• **Precautions in Laboratory** Fire Extinguishers are provided in each lab to protect lab in case of fire accidents. • **Good ventilation:** Air conditioner and fan are fitted in the lab for the computer user to be comfortable. • **Protection from power problems:** Uninterrupted Power Supply and Generator used to ensure power supply throughout the working hours. • **Good lighting system** The laboratories are equipped with good lighting

		system to make the users comfortable to work in the lab • First Aid boxes are available in all areas throughout the Department. They are typically located in laboratory areas. • CCTV facility provided in all the prominent locations

Table B.6.5 Safety Measures



CRITERION 7

CONTINUOUS IMPROVEMENT

CRITERION 7	CONTINUOUS IMPROVEMENT	50

7.1 Action taken based on the results of evaluations of each of the POs and PSOs (20)

PO's and PSO's Attainment Levels and Actions For improvement (2017-2021)

POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATION
PO1:Engineering Knowledge: To apply the knowledge of mathematics, science ,engineering fundamentals and an engineering specialization to the solution of complex engineering problems			
PO1	2.55	2.55	Target level has been achieved; However, following observations were made: Computer science and engineering requires the strong foundation of theoretical and practical knowledge of science and mathematics to learn the computer science courses. The students need to be exposed to application of the concepts learned in these courses.
ACTIONS: 1. Additional Tutorial classes were conducted to improve the understanding of fundamentals of engineering mathematics and science courses. 2. Concepts and problems were discussed with its applications in computer science and engineering field.			
PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO2	2.55	2.54	Target level has not been achieved. Students sometimes find it difficult to understand and solve the complex problems
ACTIONS: 1.Tutorial classes were conducted and students are asked to do assignments 2. Students are encouraged to raise the queries during the lecture session			
PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate considerations for the public health and safety, and the cultural, societal, and environmental considerations			
PO3	2.55	2.54	Target level has not been achieved.

			Designing solutions do not meet the health and safety needs to the required extent.

ACTIONS :

1. Designing solutions with the public health and safety, cultural, societal, and environmental considerations are emphasized.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions

PO4	2.55	2.62	Target level has been achieved. Students are need to get more knowledge on research based approach and analysis of data.

ACTION:

1. In mini projects students are exposed to find solutions for practical applications

2.In final year project work, a batch of students are involved to design, implement solutions for a real-time problem and analyze the data.

PO5: Modern Usage Tools: create, select and apply appropriate techniques, resources, modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations

PO5	2.55	2.46	Target level has not been achieved. Students are involved in using software tools as per the curriculum but the students are to be exposed to software testing tools like selenium and other tools which are not covered in the curriculum

ACTIONS:

1. In Object oriented analysis and design lab, Rational Rose, ArgoUML tools were used
2. In Networks lab, NS2 simulator tool is used.
3. Hands on training arranged on software testing tools.

PO6: The Engineer and society:

Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO6	2.55	2.46	Target level has not been achieved. Students lack knowledge in legal aspects like patents and intellectual property rights. Students are to be focused on societal and cultural issues on use of knowledge.

Actions:

1. Students should be motivated to involve in social initiatives to understand the social aspects which will help them to solve the problems of society with engineering practices. For example project to solve issues in agriculture.
2. Knowledge on Legal aspects like IPR, Patents is inculcated during seminars and workshop.

PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in social and environmental contexts, and demonstrate the knowledge of, and need for sustainable development

PO7	2.55	2.59	Target level has been achieved. It was observed the role of students towards environment and global awareness need to be improved.

Actions:

1. Environmental impact of E-waste and recycling were discussed.
2. Green computing and Environmental aspects of software and Hardware were discussed.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO8	2.55	2.55	Target level has been achieved. The curriculum focus on professional core courses related to computer science and engineering as well as importance is given for professional ethics wherever it is applicable.

Actions:

1. Students are motivated to learn the ethical facts and be aware of the professional ethics and responsibilities.
2. To encourage students participation in co-curricular activities and games

PO9:Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings

PO9	2.55	2.70	Target level has been achieved. Students are encouraged to work in groups so that they can perform as an individual and also as a member of team.

Actions:

1. In object oriented Analysis and design lab, mini projects and final year projects, students are involved in team work.
2. In CSE Department technical symposium Kshatriya and other technical events students work in teams to improve the individual contributions and leadership quality

PO10: Communication: communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions

PO10	2.55	2.68	Target level has been achieved. The communication, presentation and report writing skills are to be further improved among the students.

Actions:

1. The following courses, Interpersonal skills/listening &speaking, Advanced Reading and writing , specifically focus on communication and report writing
2. Soft skills training is imparted to students to enhance various aspects of communications/technical talks by group discussions and presentations.

PO11:Project Management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as member and leader in a team, to manage projects and in multidisciplinary Environments

PO11	2.55	2.63	Target level has been achieved,Few courses of curriculum focus on providing knowledge on management principles and applying the managerial principles to his/her work including financial implications and to manage the project in multidisciplinary environment.

Actions:

1. The awareness on software project management is created among the students in the courses software engineering and principles of management.

PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of computer science and engineering change.

PO12	2.55	2.54	Target level has not been achieved. The computer science and engineering students should have the attributes of life-long learning because technological changes takes place so often in this field.

Actions:

1. Students are provided with ICT facilities like internet, NPTEL and online video lectures to continue the learning in addition to the curriculum.
2. Alumni are invited to discuss the trends in the software industries and encourage students to learn continuously throughout the life.

PSO1: Analyze, design and develop computing solutions by applying foundational concepts of computer science and engineering.

PSO1	2.55	2.52	Target level has not been achieved. Students are involved in applying the concepts learned in computer science and engineering to real time applications

ACTIONS:

1. More importance is given to core subjects of computer science like data structures, Design and analysis of algorithms, computer architecture and Database Management System etc.

PSO2: Apply software engineering principles and practices for developing quality software for scientific and business applications.

PSO2	2.55	2.53	Target level has not been achieved. Various activities of software development life cycles (SDLC) and quality attributes of software were discussed in the software engineering course.

Actions:

1. Additional programs were done by the students in each laboratory course and apply the principles of software engineering.
2. Students were asked to do mini projects and final year projects with the application of concepts learned in the software engineering.

PSO3: To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.

PSO3	2.55	2.57	Target level has been achieved Students are exposed to new problems in each area during lectures and practical session
Actions: 1. Students are encouraged to take part in programming contest like learnathon, Hackathon etc. 2. Students are motivated to use ICT for real time problems.			

POs Attainment Levels and Actions for Improvement- (2018-22)

POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATION
PO1:Engineering Knowledge: To apply the knowledge of mathematics, science ,engineering fundamentals and an engineering specialization to the solution of complex engineering problems			
PO1	2.55	2.74	1. Enhancement in the ability to solve and analyze the numerical problems of Mathematics and Data Structure. 2. Problem in understanding concept of Digital Principles and System Design
ACTIONS: 1. Additional Tutorial classes were conducted to improve the understanding of fundamentals of engineering mathematics and science courses. 2. Concepts and problems were discussed with its applications in computer science and Engineering.			
PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO2	2.55	2.74	Target level has been achieved .Students sometimes find it difficult to understand and solve the complex problems
ACTIONS: 1. Tutorial classes were conducted and Students are asked to do assignments 2. Students are encouraged to raise the queries during the lecture session. 3. Mini Projects were assigned to students since beginning of their graduation program for solving complex engineering problems.			

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate considerations for the public health and safety, and the cultural, societal, and environmental

PO3	2.55	2.70	Target level has been achieved.Although, students have been a part of various co-curricular & extra-curricular activities.

ACTIONS :

1. Students were encouraged to participate in various technical activities.
2. Designing solutions with the public health and safety, cultural, societal, and environmental considerations are emphasized.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions

PO4	2.55	2.61	Target level has been achieved. Although. Lacking in applying research-based approach and research-based knowledge. Student were facing problem for solving the complex problem. Lack of innovative ideas and real time engineering problems in projects.

ACTION:

1. Various Training programs, Workshops, industrial visits were organized for improving understanding concept of software industry.
2. More problems were given for practice and extra classes were conducted.
3. NPTEL video presentation was given. In mini projects students are exposed to find solutions for practical applications

PO5: Modern Usage Tools: create, select and apply appropriate techniques, resources, modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations

PO5	2.55	2.62	Target level is achieved. Although the target level is achieved and students have shown their proficiency towards Modern tools usage, but, still they need more exposure through trainings, guest lectures, seminars, workshops,

			Industry supported courses in order to enhance their skills to use modern tools.

ACTIONS:

1. Various Training programs, Workshops and Industrial visits were organized for understanding uses of modern tool in Python, Java.
2. Workshops were organized to give students hands-on training on modern tools.
3. Students were persuaded to complete online certification courses preferably on usage of modern tools from standard platforms like Coursera, NPTEL/ Swayam etc..

PO6: The Engineer and society:

Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO6	2.55	2.57	Target level has been achieved. Students are exposed to societal and cultural issues and able to apply the knowledge to find appropriate solutions.

Actions:

1. Students were motivated to take a part in various social events such as, Clean India Campaign and Blood donation camp.
2. Students are encouraged to read newspapers daily to know about societal, health, safety, legal and cultural issues and share the information among other students
3. Students should be motivated to involve in social initiatives to understand the social aspects which will help them to solve the problems of society with engineering practices. For example project to solve issues in agriculture.

PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in social and environmental contexts, and demonstrate the knowledge of, and need for sustainable development

PO7	2.55	2.45	Target level has not been achieved. It was observed the role of students towards environment and global awareness need to be improved.

Actions:

1. Environmental impact of E-waste and recycling were discussed.
2. Green computing and Environmental aspects of software and Hardware were discussed.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO8	2.55	2.65	Target level has been achieved.The curriculum focus more on professional core courses related to computer science and engineering but less importance is given for professional ethics.

Actions:

1. Students are motivated to learn the ethical facts and be aware of the professional ethics and responsibilities.
2. To encourage students participation in co-curricular activities and games

PO9:Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings

PO9	2.55	2.78	Target level has been achieved. Students are encouraged to work in groups so that they can perform as an individual and also as a member of team.

Actions:

1. In object oriented Analysis and design lab, mini projects and final year projects, students are involved in team work.
2. In CSE Department technical symposium Kshatriya and other technical events students work in teams to improve the individual contributions and leadership quality

PO10: Communication: communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions

PO10	2.55	2.77	Target level has been achieved. The communication, presentation and report writing skills are to be further improved among the students.

Actions:

1. The following courses, Interpersonal skills/listening &speaking, Advanced Reading and writing , specifically focus on communication and report writing
2. Soft skills training is imparted to students to enhance various aspects of communications/technical talks by group discussions and presentations.

PO11:Project Management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as member and leader in a team, to manage projects and in multidisciplinary Environments			
PO11	2.55	2.47	Target level has not been achieved,Few courses of curriculum focus on providing knowledge on management principles and applying the managerial principles to his/her work including financial implications and to manage the project in multidisciplinary environment.
Actions: 1. The awareness on software project management is created among the students in the courses software engineering and principles of management. 2. Leadership qualities will be inculcated to students by allowing them to participate in technical symposiums.			
PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of computer science and engineering			
PO12	2.55	2.63	Target level has been achieved. The computer science and engineering students should have the attributes of life-long learning because technological changes takes place so often in this field.
Actions: 1. ICT facilities like internet, NPTEL and online video lectures to continue the learning in addition to the curriculum. 2. Alumni are invited to discuss the trends in the software industries and encourage students to learn continuously throughout the life			
PSO1: Analyze, design and develop computing solutions by applying foundational concepts of computer science and engineering.			
PSO1	2.55	2.68	Target level has been achieved. Students are involved in applying the concepts learned in computer science and engineering to real time applications

ACTIONS:

1. More importance is given to core subjects of computer science like data structures, Design and analysis of algorithms, computer architecture and Database Management System etc

PSO2: Apply software engineering principles and practices for developing quality software for scientific and business applications

PSO2	2.55	2.75	Target level has been achieved. Various activities of software development life cycles (SDLC) and quality attributes of software were discussed in the software engineering course.

Actions:

1. Additional programs were done by the students in each laboratory course and apply the principles of software engineering.
2. Students were asked to do mini projects and final year projects with the application of concepts learned in the software engineering.

PSO3: To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.

PSO3	2.55	2.71	Target level has been achieved. Students are exposed to new problems in each area during lectures and practical session

Actions:

1. Students are encouraged to take part in programming contest like Learnathon, Hackathon etc
2. Students are motivated to use ICT for real time problems.

POs	TARGET LEVEL	ATTAINMENT LEVEL	OBSERVATION

PO's and PSO's Attainment Levels and Actions For improvement (2019-2023)

PO1:Engineering Knowledge: To apply the knowledge of mathematics, science ,engineering fundamentals and an engineering specialization to the solution of complex engineering problems

PO1	2.55	2.58	1. Students find it difficult to apply theoretical concepts to practical problems. 2.Students find it difficult to apply engineering fundamentals to solve complex engineering problems

ACTIONS:

1.Revision classes(to revise fundamental concepts upto 12th class) for basic science courses will be conducted

2. Practice questions will be provided from selected topics.

3. Doubt clearing classes are conducted for doubt clearing/coaching class

PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO2	2.55	2.60	Target level has been achieved. Students sometimes find it difficult to understand and solve the complex problems

ACTIONS:

1. Faculty members will take extra efforts to provide assignments to the students and also guide them to use study material available like MOOC/Coursera.
2. Students are promoted to approach concerned faculty during their free hours for doubt clearance.

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate considerations for the public health and safety, and the cultural, societal, and environmental considerations

PO3	2.55	2.57	Target level has been achieved. Although, students have been a part of various co-curricular & extra-curricular activities.

ACTIONS :

1. Students were encouraged to do industrial training and internships to enhance the ability to identify and formulate complex engineering problems.
2. Faculty is advised to give application based assignments to students

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions

PO4	2.55	2.68	Target level has been achieved. Although. Lacking in applying research-based approach and research-based knowledge. Student were facing problem for solving the complex problem. Lack of innovative ideas and real time engineering problems in projects.

ACTION:

1. Students are introduced to different software in project laboratory
2. In addition to the content of syllabus, teachers will introduce research paper problems from journals in the tutorial and lab classes
3. More exposure to data science tools to be given

PO5: Modern Usage Tools: create, select and apply appropriate techniques, resources, modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations

PO5	2.55	2.48	Target level is not achieved.

ACTIONS:

1. Various Training programs, Workshops and Industrial visits were organized for understanding uses of modern tool in Python, Java.
2. Students will be encouraged to do industrial training/internship
3. Students were persuaded to complete online certification courses preferably on usage of modern tools from standard platforms like Coursera, NPTEL/ Swayam etc.

PO6: The Engineer and society:

Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO6	2.55	2.55	Target level has been achieved. Students are exposed to societal and cultural issues and able to apply the knowledge to find appropriate solutions.

Actions:

1. Students were motivated to actively participate in different social activities like National service Scheme camps.
2. Students are encouraged to read newspapers daily to know about societal, health, safety, legal and cultural issues and share the information among other students

PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in social and environmental contexts, and demonstrate the knowledge of, and need for sustainable development

PO7	2.55	2.70	Target level has been achieved. Efforts are put to make students aware about Environment and Sustainability.

Actions:

1. Environmental impact of E-waste and recycling were discussed.
2. Students are encouraged to develop mini project to address social issues.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO8	2.55	2.64	Target level attained. To imbibe professional ethics and responsibilities among students

Actions:

1. Students are motivated to learn the ethical facts and be aware of the professional ethics and responsibilities.
2. To encourage students participation in co-curricular activities and games.

PO9:Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings

PO9	2.55	2.73	Target level has been achieved. Students are encouraged to work in groups so that they can perform as an individual and also as a member of team.

Actions:

1. Students are motivated to organize the team activities like group quiz..
2. In CSE Department technical symposium Kshatriya and other technical events students work in teams to improve the individual contributions and leadership quality

PO10: Communication: communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions

PO10	2.55	2.74	Target level has been achieved. It is observed that there is scope of improvement in design, documentation and presentation

Actions:

1. Power point presentation will be given by second year, third year, and final year students as a part of audit course.
2. The students are encouraged to participate in competitive events like essay writing, debate events etc
3. Mock interviews are planned for final year students

PO11:Project Management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as member and leader in a team, to manage projects and in multidisciplinary Environments

PO11	2.55	2.62	Target level has been achieved, More focus needs to be given on engineering economics and financial analyses

Actions:

1. Students are motivated to participate in various technical events like hackathon, paper/poster presentation etc.
2. Students are encouraged to develop project in a team to enhance their project management skills.

PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of computer science and engineering

PO12	2.55	2.51	Target level has not been achieved. The computer science and engineering students should have the attributes of life-long learning because technological changes takes place so often in this field.

Actions:

1. Emphasis will be given on exploring various e-learning platforms.
2. Students are encouraged to enroll for training/certification courses

PSO1: Analyze, design and develop computing solutions by applying foundational concepts of computer science and engineering.

PSO1	2.55	2.59	Target level has been achieved. Students are involved in applying the concepts learned in computer science and engineering to real time applications

ACTIONS:

1. More importance is given to core subjects of computer science like data structures, Design and analysis of algorithms, computer architecture and Database Management System etc

PSO2: Apply software engineering principles and practices for developing quality software for scientific and business applications

PSO2	2.55	2.59	Target level has been achieved. Various activities of software development life cycles (SDLC) and quality attributes of software were discussed in the software engineering course.

Actions:

1. Additional programs were done by the students in each laboratory course and apply the principles of software engineering.
2. Students were asked to do mini projects and final year projects with the application of concepts learned in the software engineering.

PSO3: To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.

PSO3	2.55	2.60	Target level has been achieved. Students are exposed to new problems in each area during lectures and practical session

Actions:

1. Students are encouraged to take part in programming contest like Learnathon, Hackathon etc
2. Students are motivated to use ICT for real time problems.

7.2 Academic Audit and actions taken thereof during the period of Assessment(10)

Academic audit and actions taken are carried out with the help of IQAC Components:

The process consists of internal audit. Audits are conducted for faculties, laboratories and department activities.

Academic Audit Action Report:

Faculty Audit:

The following record of the faculty members has been verified during the Internal Academic audits.

1. Internal Assessment Record
2. (i)Time Table
   (ii)Syllabus
   (iii) Attendance Particular
   (iv) Course record
   (v) Teaching Record
   (vi) Test mark Analyses
   (vii)Test Attendance particular
3. Course Plan
4. Lecture Plan
5. Assignment/Tutorial question with Answers
6. Anna University Question Paper with Answer Script
7. Gate Questions
8. Internal Assessment Test Question Paper with Answer
9. Sample Answer Script
10. Course Outcome Assessment Sheet
11. Course End Report
12. Internal Mark Calculation
13. Anna University Web Portal Entry

Remarks of IQAC

- Notes sharing by Google classroom is required
- MCQ as per AU pattern is required

Laboratory Audit

The academic committee during their random observation of the lectures/lab check delivery of course material as per the lesson plan, teaching aids used, communication skill and classroom management etc.

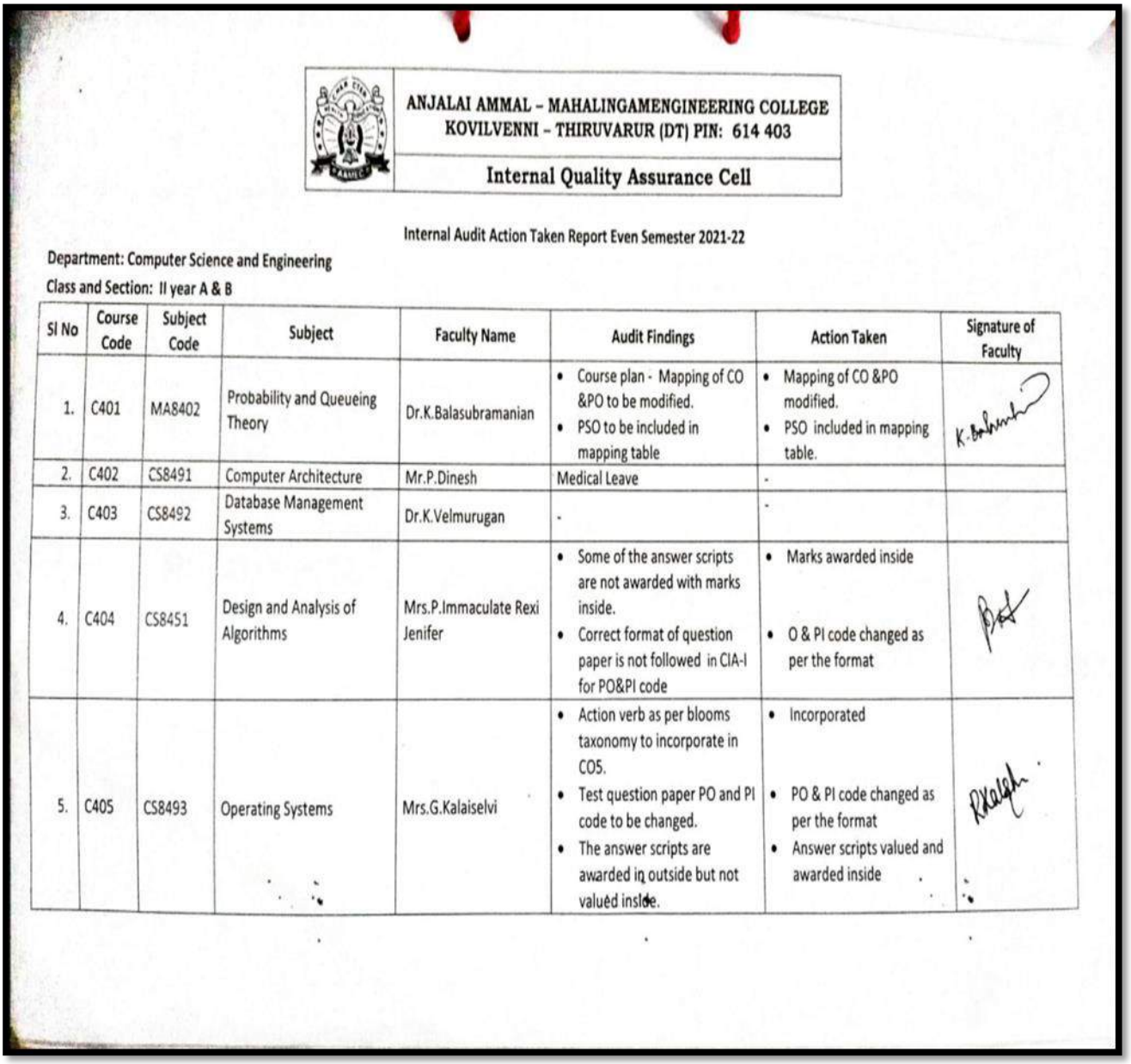
1. Attendance Assessment Record
    1. Timetable
    2. Syllabus
    3. Attendance Particulars
    4. Experiment Assessment Details
2. Course Plan

3. Laboratory Manual
4. Model Examination Planning and Assessment
5. Sample Record notebook
6. Course Outcome Based Assessment Sheet
7. Course end Report
8. Internal Mark Calculation

Remarks:

- Ensuring that appropriate test procedures, equipment, controls, calibrations methods are established
- Procuring test samples in an efficient and timely manner
- Producing accurate laboratory test results

Academic Year 2021-2022(EVEN SEMESTER)



ANJALAI AMMAL – MAHALINGAMENGINEERING COLLEGE
KOVILVENNI – THIRUVARUR (DT) PIN: 614 403

Internal Quality Assurance Cell

Internal Audit Action Taken Report Even Semester 2021-22

Department: Computer Science and Engineering

Class and Section: II year A & B

Sl No	Course Code	Subject Code	Subject	Faculty Name	Audit Findings	Action Taken	Signature of Faculty
1.	C401	MA8402	Probability and Queueing Theory	Dr.K.Balasubramanian	• Course plan - Mapping of CO &PO to be modified. • PSO to be included in mapping table	• Mapping of CO &PO modified. • PSO included in mapping table.	K.Balasubramanian
2.	C402	CS8491	Computer Architecture	Mr.P.Dinesh	Medical Leave	-	
3.	C403	CS8492	Database Management Systems	Dr.K.Velmurugan	-	-	
4.	C404	CS8451	Design and Analysis of Algorithms	Mrs.P.Immaculate Rexi Jenifer	• Some of the answer scripts are not awarded with marks inside. • Correct format of question paper is not followed in CIA-I for PO&PI code	• Marks awarded inside • O & PI code changed as per the format	
5.	C405	CS8493	Operating Systems	Mrs.G.Kalaiselvi	• Action verb as per blooms taxonomy to incorporate in CO5. • Test question paper PO and PI code to be changed. • The answer scripts are awarded in outside but not valued inside.	• Incorporated • PO & PI code changed as per the format • Answer scripts valued and awarded inside	

6.	C406	CS8494	Software Engineering	Mr.R.Arunachalam	• Mapping of CO with PO need to be updated. PSO mapping need to include. • Blooms level need to be updated. PO and PI code need to be corrected in question paper. • Papers are not valued inside. Marks provided only outside.	• CO-PO mapping updated • PO & PI code updated in Question paper • Answer scripts valued and awarded inside	
7.	C407	CS8481	Database Management Systems Laboratory	Mr.P.Dinesh	Medical Leave	-	
8.	C408	CS8461	Operating Systems Laboratory	Mrs.G.Kalaiselvi	Scripts to be valued inside &marks to be awarded	Answer scripts valued and awarded inside	
9.	C409	HS8461	Advanced Reading and Writing	Dr.R.V.Sivaraman	Refer English Dept report	-	

IQAC Member HOD Coordinator-IQAC Principal

ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI – THIRUVARUR (DT) PIN: 614 403

Internal Quality Assurance Cell

Internal Audit Action Taken Report: Even Semester 2021-22

Department: Computer Science and Engineering

Class and Section: III year A & B

Sl No	Course Code	Subject Code	Subject	Faculty Name	Audit Findings	Action Taken	Signature of Faculty
1.	CEC1	CS8651	Internet Programming	Mr.J.Ganesh	• Total attendance particulars not entered in AAR. • Revised blooms taxonomy need to be updated in question paper. • Answer scripts are not valued inside but the marks are given outside.	• Attendance particulars entered • Updated as per Bloom's in question paper • Answer scripts valued and awarded inside	
2.	CEC2	CS8691	Artificial Intelligence	Mrs.S.Pagana Pavani	• Course outcome to modify as per blooms taxonomy action verbs. • PO and PI code to be changed. BL values are not correct as per revised blooms taxonomy in question paper.	• CO modified as per blooms • PO & PI code updated in Question paper	
3.	CE01	CS8601	Mobile Computing	Dr.G.Nanthakumar	• CO to be modified as per the blooms taxonomy. Five assignments to be given and to be recorded in course plan.Mapping of CO with PO to be updated. • Some questions are mismatched with blooms level need to update.	• CO modified as per Blooms • Updated as per Bloom's in question paper	
4.	CE04	CS8602	Compiler Design	Mr.P.Manikanda Prabu	• Revised blooms taxonomy action verb need to be updated in CO. • Some questions are not as per the blooms value	• CO modified as per Blooms • Updated as per Bloom's in question paper	

5.	C605	CS8603	Distributed Systems	Mrs.K.Karthika	• PI code to be changed • Not valued inside only marks are given	• PI code changed • Answer scripts valued and awarded inside	K. Karthika
6.	C606	CS8075	Data Warehousing and Data Mining	Mrs.P.Elakkiya	• PO & PI code need to be modified. • Marks are not awarded inside the answer scripts.	• PO & PI code updated in Question paper • Answer scripts valued and awarded inside	P.Elakkiya
7.	C607	CS8661	Internet Programming Laboratory	Mr.J.Ganesh	Internal marks to be updated	Updated in AAR	J.Ganesh
8.	C608	CS8662	Mobile Application Development Laboratory	Mrs.S.Farjana Farvin	Scheme for internal mark calculation.	Scheme formed for internal mark calculation	
9.	C609	CS8611	Mini Project	Mr.P.Manikanda Prabu	Course plan not available. Review 1 & 2 rubrics required.	Course plan available Rubrics for Review 1 & 2 available	P.
10.	C6010	HS8581	Professional Communication	Dr.S.Vaiyapurirajan Mr.M.Chandrasekaran	Refer English Dept report	-	

IQAC Member HOD Coordinator-IQAC Principal

ANJALAI AMMAL – MAHALINGAMENGINEERING COLLEGE
KOVILVENNI – THIRUVARUR (DT) PIN: 614 403

Internal Quality Assurance Cell

Internal Audit Action Taken Report: Even Semester 2021-22

Department: Computer Science and Engineering

Class and Section: IV year A & B

Sl No	Course Code	Subject Code	Subject	Faculty Name	Audit Findings	Action Taken	Signature of Faculty
1.	C801	GE8076	Professional Ethics in Engineering	Mr.R.Ravi	• Course plan - CO,CO-PO mapping correction required. • Downloaded notes used, • Test Question ava lable as per AICTE norms-correction required. Answer Key not available	• CO-PO mapping updated • Insist to create own notes • Updated as per Bloom's in question paper. Key available	S. R.
2.	C802	CS8080	Information Retrieval Techniques	Mr.K.Pazhanivel	• Revised blooms taxonomy action verb is not followed. • Most of the classes are combined and handled. There is no proper modality followed for combining class. • Question paper was taken by him for 3 cycle tests.Marks are given only outside But not inside the scripts for CIA	• Updated as per Bloom's in question paper. • • Answer scripts valued and awarded inside	
3.	C803	CS8811	Project Work	Dr.G.Nanthakumar	• Course plan not available. • Review .1,2,3 rubrics required.	Course plan available Rubrics for Review 1 & 2 , 3 available	

IQAC Member HOD Coordinator-IQAC Principal

Academic Year 2022-2023 (EVEN SEMESTER)

ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI – THIRUVARUR (DT) PIN: 614 403
(NAAC Accredited with B Grade)
Internal Quality Assurance Cell

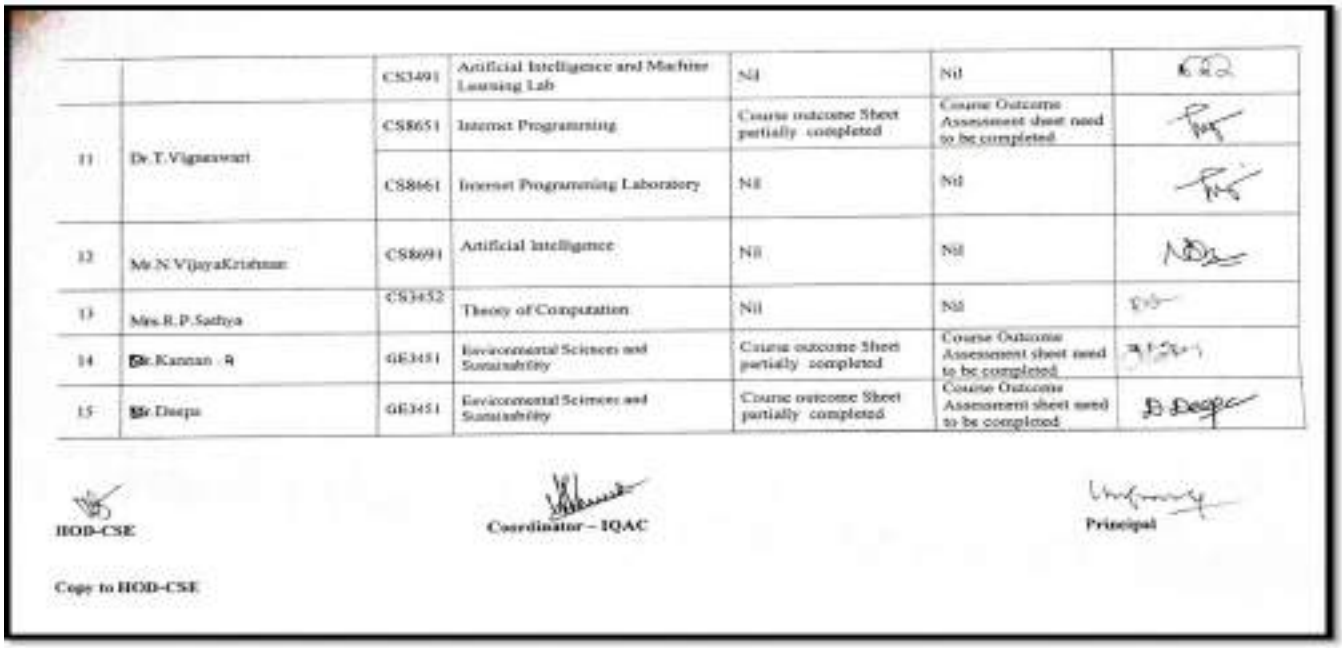
Academic Audit Report 2022-2023 Even Semester

Date: 08.06.2023

Department: Computer Science and Engineering

Sl No	Name of the faculty member	Sub Code	Subjects handling/Dept.	Audit Report	Action required	Signature
1	Dr.K.Velmurugan	CS3451	Introduction to Operating Systems	Nil	Nil	
		IVA042	Blockchains and cryptocurrencies	Nil	Nil	
2	Dr.G.Nantha Kumar	CS8602	Compiler Design	Nil	Nil	
		CS8811	Project work	Nil	Nil	
3	Mr.Arunachalam	CS8080	Information Retrieval Techniques	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	
4	Mr.P.Manikanda Prabu	CS8602	Compiler Design	Nil	Nil	
		CS8691	Mobile Computing	Nil	Nil	
		CS8662	Mobile Application Development Laboratory	Nil	Nil	
		CS8611	Mini Project	Nil	Nil	
5	Mrs.K.Karthika	CS8603	Distributed Systems	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	
		CS8492	Database Management Systems	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	
		CS3481	Database Management Systems Laboratory	Nil	Nil	
6	Mr.K.Palanivel	CS8603	Distributed Systems	Nil	Nil	
		CS8080	Information Retrieval Techniques	Nil	Nil	
		CS8662	Mobile Application Development Laboratory	Nil	Nil	
7	Mr.P.Dinesh	CS8691	Mobile Computing	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	
8	Mrs.P.Immaculate Rexi Jenifer	CS3401	Algorithms	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	
		CS3401	Algorithms Lab	Nil	Nil	
9	Mrs.G.Kalaiselvi	CS3451	Introduction to Operating Systems	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	
		CS3492	Database Management Systems	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	
		CS3461	Operating Systems Laboratory	Nil	Nil	
10	Mrs.S.Farjana Farvin	CS3491	Artificial Intelligence and Machine Learning	Nil	Nil	

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research. **Mission:M1:**To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:**To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.**M3:**To train students to enhance their problem-solving and programming skills. **M4:**To expose students to emerging technologies and tools in the field of computing.



		CS3491	Artificial Intelligence and Machine Learning Lab	Nil	Nil	
11	Dr.T.Vigneswari	CS8651	Internet Programming	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	
		CS8661	Internet Programming Laboratory	Nil	Nil	
12	Mr.N.VijayaKrishnan	CS8691	Artificial Intelligence	Nil	Nil	
13	Mrs.R.P.Sathya	CS3452	Theory of Computation	Nil	Nil	
14	Dr.Kannan .S	GE3451	Environmental Sciences and Sustainability	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	
15	Dr.Deepa	GE3451	Environmental Sciences and Sustainability	Course outcome Sheet partially completed	Course Outcome Assessment sheet need to be completed	

HOD-CSE

Coordinator – IQAC

Principal

Copy to HOD-CSE

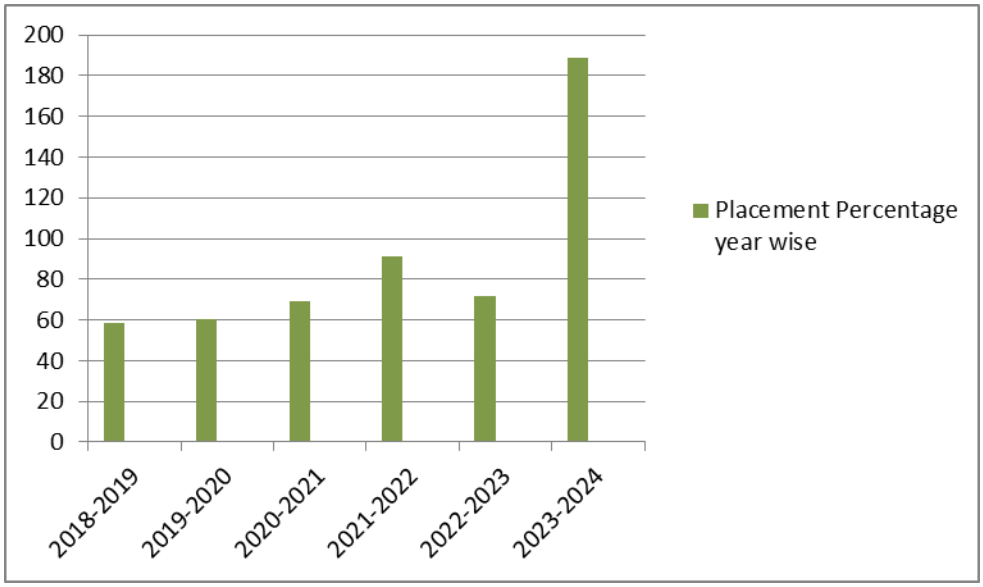
7.3 Improvement in Placement, Higher Studies and Entrepreneurship

Item CAY	CAY (2023-24)	CAY (2022-23)	CAYm1 (2021-22)	CAYm2 (2020-2021)	CAYm3 (2019-2020)	CAYm4 (2018-2019)
Total No.of Final Year Students(N)	90	84	82	76	91	80
No.of Students Placed in Companies or Government Sector(X)	170	60	75	52	55	47
No. of Students admitted to higher studies with valid qualifying scores(GATE or Equivalent State or National Level Tests,GRE,GMAT ,etc.)(Y)	4	1	5	6	5	6

No.of Students turned entrepreneur in engineering /technology(Z)	-	5	2	2	2	1
Placement Index: (X+Y+Z)/N	1.93	0.78	0.91	0.79	0.68	0.67

Number of Students Placed	
Academic Year	Number of Students Placed
2018-2019	47
2019-2020	55
2020-2021	52
2021-2022	75
2022-2023	60
2023-2024	170

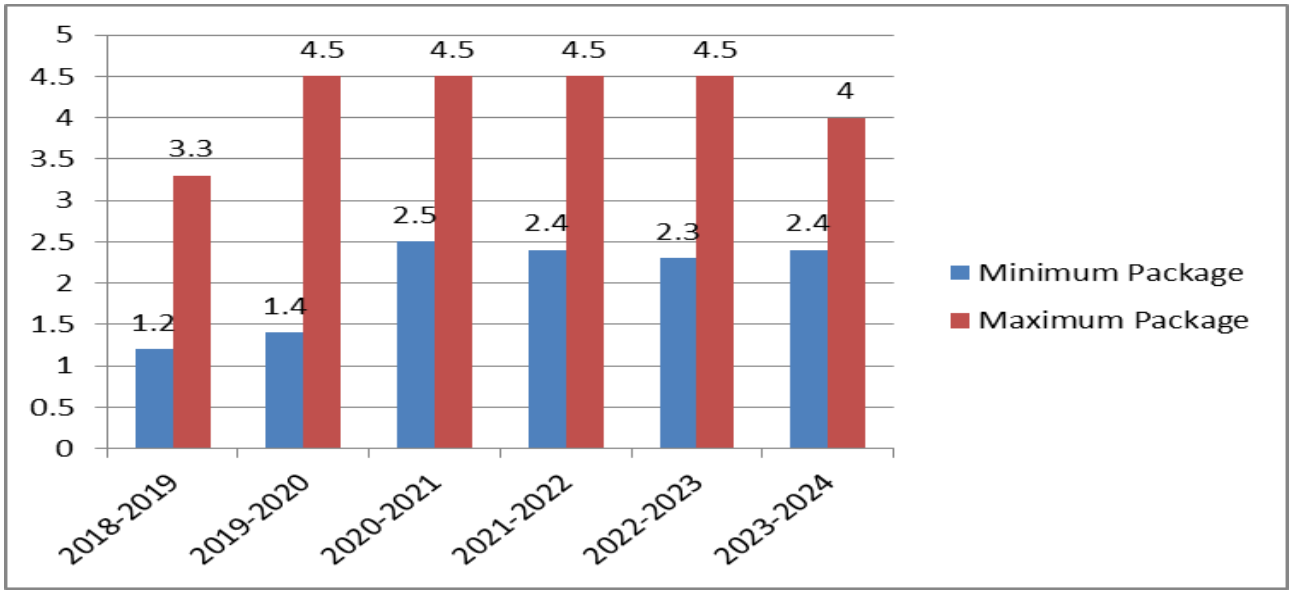
Placement Percentage	
Academic Year	**Placement Percentage**
2018-2019	58.75
2019-2020	60.43
2020-2021	69.33
2021-2022	91.40
2022-2023	71.42
2023-2024	188.88



Minimum and Maximum Package per annum

PLACEMENTS		2023-2024	2022-2023	2021-2022	2020-2021	2019-2020	2018-2019
Placements(Unique offers)		90	84	82	76	91	80
Pay Packages	Minimum	2.4	2.4	2.4	2.5	1.4	1.2
	Maximum	4.0	4.5	4.5	4.5	4.5	3.3

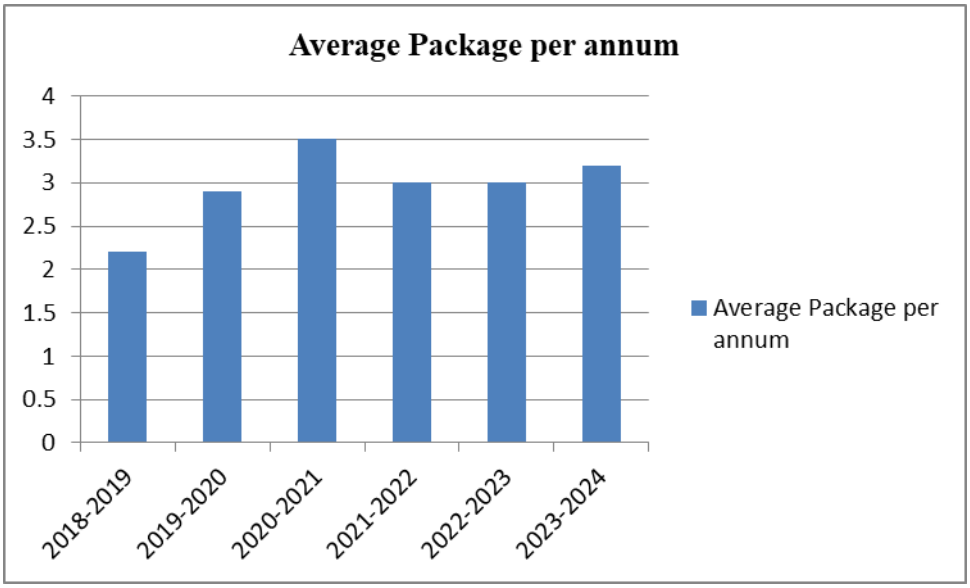
Minimum and Maximum Package per annum



Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research. **Mission:M1:**To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:**To impart in-depth knowledge in core computer science and engineering theory and laboratory courses.**M3:**To train students to enhance their problem-solving and programming skills. **M4:**To expose students to emerging technologies and tools in the field of computing.

Average Package per annum:

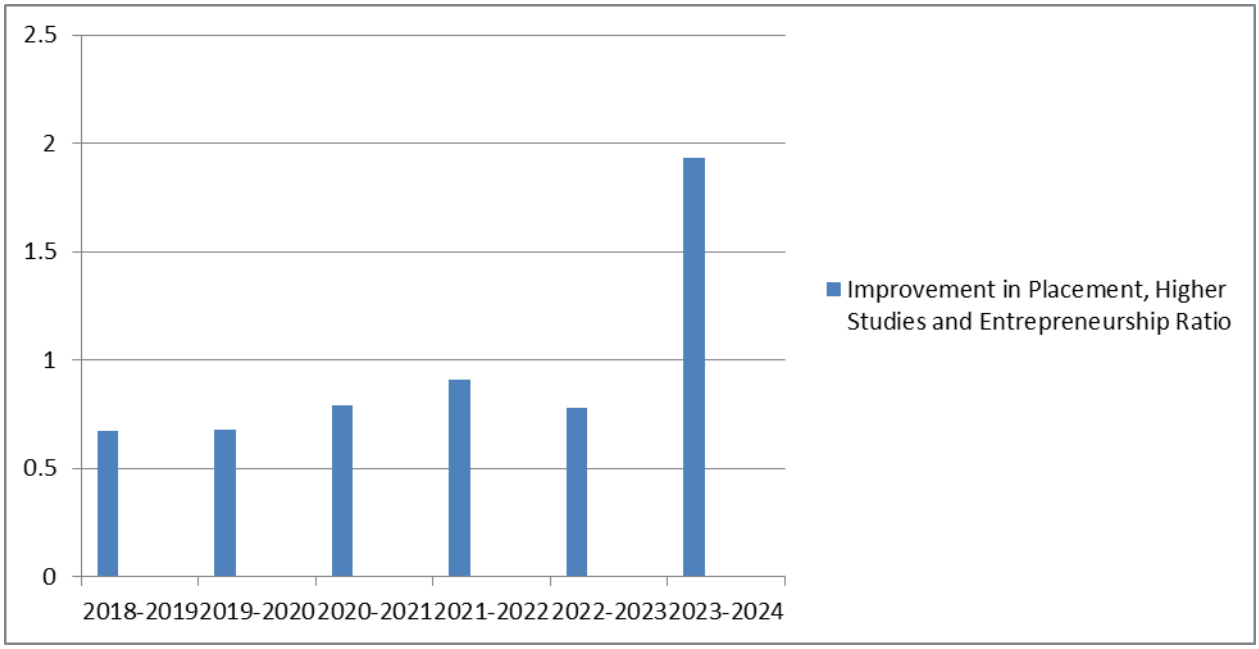
Academic Year	Average Package
2018-2019	2.2 LPA
2019-2020	2.9 LPA
2020-2021	3.5 LPA
2021-2022	3 LPA
2022-2023	3 LPA
2023-2024	3.2 LPA



7.3 Improvement in Placement, Higher Studies and Entrepreneurship Ratio

Academic Year	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Placement, Higher Studies and Entrepreneurship	0.67	0.68	0.79	0.91	0.78	1.93

Ratio						



Sample: Higher Studies Appointment order (2022-2023)

SASTRA
DEEMED TO BE UNIVERSITY
(U/S 3 OF THE UGC ACT, 1956)
THINK MERIT | THINK TRANSPARENCY | THINK SASTRA

Admission Letter

Date: 01-06-2023

Name of the Applicant : **Subasri D R**
Application No : **MTECH2300005**
Programme admitted to : **M.Tech.-Artificial Intelligence & Data Science**

Dear **Subasri D R**

Congratulations!

Welcome to the SASTRA student fraternity.

You are amongst the privileged few to be a part of SASTRA which is a **Category 1 University** recognized by UGC and also amongst the **top 25 Universities** as per the latest **NIRF2021** rankings. SASTRA also figures in the Global, Asia, BRICS and Young University rankings of THE/QS.

SASTRA is reaccredited by NAAC with A++ Grade with the CGPA 3.76 in IV cycle and also nine engineering programmes are globally accredited by IET, UK.

We are extremely happy to inform you that you have been provisionally admitted to the above programme for the academic year 2023-24.

This provisional admission shall be confirmed after your successful submission and verification of your qualifying degree documents. The date of submission of the original certificates will be intimated soon after the commencement of the class.

Commencement of First year classes will be communicated to you through your registered e-mail well in advance to enable you to plan your travel.

Kindly do not hesitate to contact us for any admission related matters at admissionsmtech@sastra.ac.in and mention your application number in all your future correspondences.

We welcome you and wishing you a fruitful stay at SASTRA Deemed University.

Registrar

2/13/23, 10:25 AM Gmail - Congratulations Santhakumar (230260669) - You have an offer from Aston University

Gmail santhakumar parivallal <santhakumarparivallal485@gmail.com>

Congratulations Santhakumar (230260669) - You have an offer from Aston University

1 message

pgadmissions@aston.ac.uk <pgadmissions@aston.ac.uk> 10 February 2023 at 18:13
To: santhakumarparivallal485@gmail.com
Cc: offers@studyin-uk.com

Aston University



Aston University Applicant Number: **230260669**

Dear Santhakumar,

Congratulations, Aston University ("the University") would like to offer you a place on the MSc Artificial Intelligence - Full Time Programme ("the Programme") for the academic year 2023/4, starting on 18 September 2023 and expected to end on 30 September 2024. The duration of the Programme is set out in the attached Programme Specification.

This offer is conditional on the following:

- IELTS score of 6.0 overall, with a minimum score of 5.5 in all sections. For other ways to meet the university's English language requirements, please visit http://www.aston.ac.uk/international-students/english-language-requirements/

If you fail to meet the scores for direct entry on to the course, you may be eligible for one of the Pre-sessional English Language Programmes. To check the entry scores of each pre sessional and make your application please visit Pre-sessional English Language Programmes page.

The results from the English tests must be received prior to the start of your chosen MSc Programme, in order to be eligible for a refund of your deposit if you fail to meet the English requirements. (We must receive your official test results within one month of you taking the test. Failure to do this will result in ineligibility for refund of deposit).

- Successful completion and award of an honours degree with a minimum cumulative average grade of 50/100. Please provide a copy of your official bachelor's degree certificate and degree transcripts for each year of study including your final degree classification, overall GPA and university grading system. You must provide certified English translations of all documents.

https://mail.google.com/mail/u/0/?ik=986d3c6144&view=pt&search=all&permthid=thread-f%3A1757447976257963273&simpl=msg-f%3A1757447... 1/4

University of Kent

Applicant ID: 24035075

22 March 2023

Mr Santhakumar Parivallal

Dear Santhakumar

Congratualtions! On behalf of the University of Kent, I am delighted to offer you a place on the following programme of study, subject to the conditions shown below.

Here at the University of Kent we understand your passion to progress. Whether gaining advanced skills or joining a global academic research community drives you, our networks and facilities will help you achieve your ambition. With a diverse group of peers and supervisors, you'll be inspired as well as challenged to push the boundaries of current thinking and research.

On our Master's degrees you'll get the support you need to achieve the career you want. Our Graduate and Researcher College offers over 300 training sessions a year to help you develop a wide range of skills to help you stand out to employers, sharpen your focus and take a step up in your career so you are ready to take your place in the professional world. Whether you've just graduated and continuing your studies, returning to study after a break or studying part-time while continuing to advance your career, you'll thrive and belong to a community of like-minded students, and enjoy the challenge that postgraduate study provides.

This offer is made subject to the University's terms and conditions of offer, which can be found on our applicant's website. You can also download a pdf version of the University's terms and conditions, our Admissions Policy and our general student regulations from KentVision. Please make sure you read these carefully, as they contain important information about your rights and responsibilities as a student of the University of Kent and the basis on which we intend to deliver our service to you.

If you wish to apply for campus accommodation you are advised to make an online application as soon as possible via our Accommodation website.

Remember to log in to KentVision regularly. It's your applicant portal where you can view and accept your offer, complete any tasks relating to your offer and ask us questions. We're always happy to help, so don't be afraid to ask.

Congratulations once again – we can't wait for you to join us.

Yours sincerely

Simone Davies
Director of Marketing, Outreach, Recruitment and Admissions

Course title:	MSc Artificial Intelligence
School of study:	School of Computing
Location:	Canterbury campus
Registration dates:	16 September 2023 to 15 September 2024
Fee status:	Overseas fees
Fee payable for the academic year:	GBP 21900 For students continuing on this programme, fees will increase year on year by no more than RPI + 3% in each academic year of study except where regulated. For more information: https://www.kent.ac.uk/courses/postgraduate/249#fees https://www.kent.ac.uk/finance-student/fees/index.html https://www.kent.ac.uk/courses/fees-and-funding
Visa status:	Our records indicate that you may require a student visa to study in the UK. The latest date for registration is Monday 16 October 2023. Please open the relevant application and navigate to the Visa section for more details.

Please ensure any conditions stated in this offer are achieved well before the course start date. We also need you to be aware that your offer can be withdrawn if you do not adhere to this deadline:

Condition	Status
Pass your degree with an overall minimum grade of 55% and provide a copy of your official final transcript and degree certificate.	Incomplete
. You will also need to take a secure English language test. Please refer to our website for a list of acceptable tests and required scores - https://www.kent.ac.uk/ems/eng-lang-reqs/index.html	Incomplete
Arrange for a satisfactory academic reference to be provided by your first nominated referee. References should be submitted online via the link that was sent to your referee by email, or sent from an official academic email account to admissionskv@kent.ac.uk. When emailing, referees should use the subject/title 'Providing reference for [Applicant Name]'. Alternatively references can be printed on official institution headed paper and posted to: Recruitment & Admissions Office,The Registry, University of Kent, Canterbury, CT2 7NZ, UK.	Incomplete
You are required to pay the International Fee deposit of £2000 via our online store to secure your offer of a place by the required deadline. Click here for details and to pay your deposit via the online store.	Incomplete

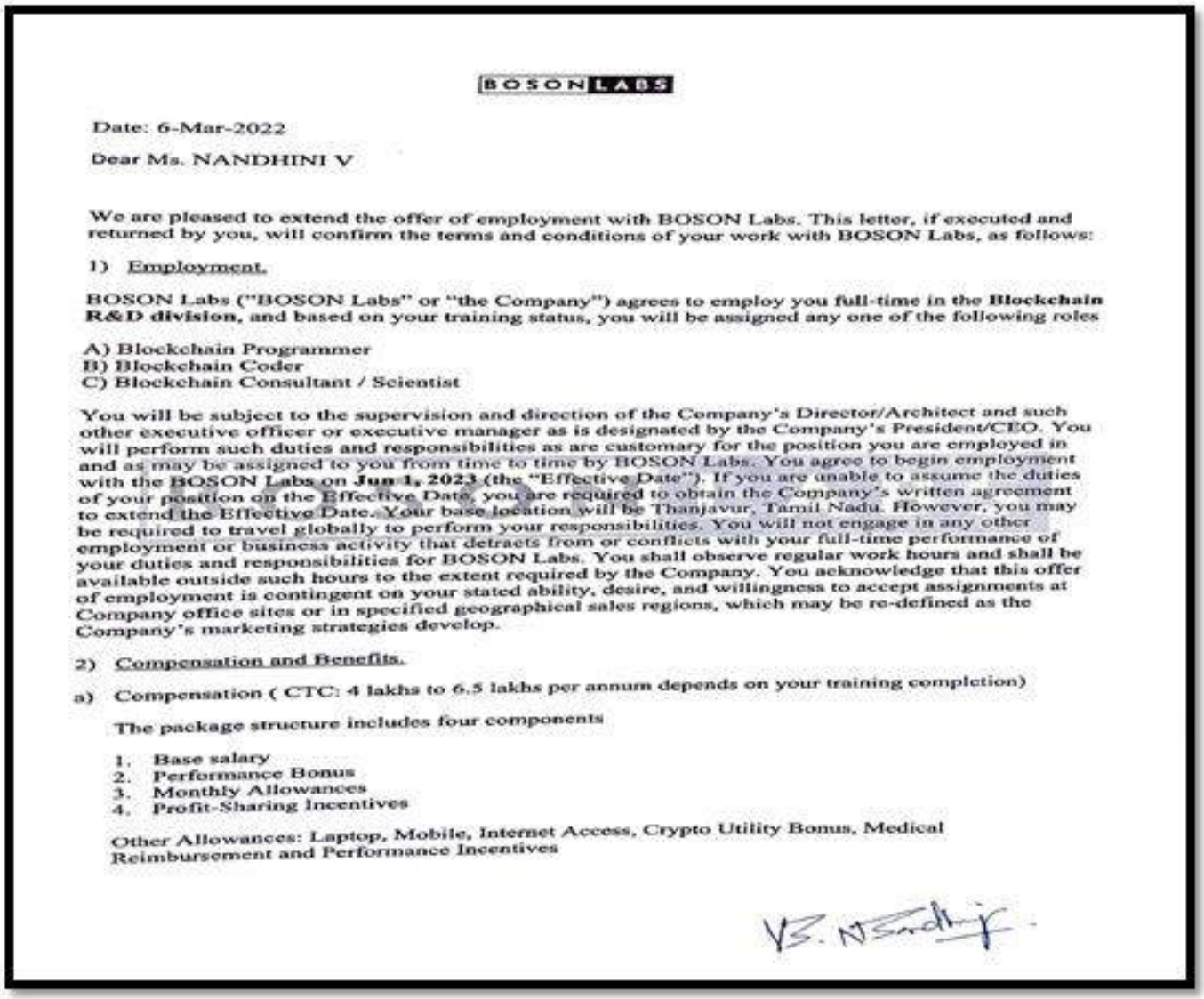
It is your responsibility to ensure all relevant documentation to satisfy the conditions of your offer is provided to us. You can upload documentation via the Applications page in KentVision.

Please download a pdf of the University's terms and conditions, our Admissions Policy and our general student regulations from KentVision. View the University's general regulations.

Complaints process: Complaints about admissions will normally be dealt with informally in the first instance. Please address these to the Head of Admissions. Further help and information:

- View the University's complaints procedure
- View the University's complaints procedure used by students following enrolment.

Sample Appointment Order: 2022-2023



BOSON LABS

Date: 6-Mar-2022

Dear Ms. NANDHINI V

We are pleased to extend the offer of employment with BOSON Labs. This letter, if executed and returned by you, will confirm the terms and conditions of your work with BOSON Labs, as follows:

1) Employment.

BOSON Labs ("BOSON Labs" or "the Company") agrees to employ you full-time in the **Blockchain R&D division**, and based on your training status, you will be assigned any one of the following roles

A) Blockchain Programmer
B) Blockchain Coder
C) Blockchain Consultant / Scientist

You will be subject to the supervision and direction of the Company's Director/Architect and such other executive officer or executive manager as is designated by the Company's President/CEO. You will perform such duties and responsibilities as are customary for the position you are employed in and as may be assigned to you from time to time by BOSON Labs. You agree to begin employment with the BOSON Labs on **Jun 1, 2023** (the "Effective Date"). If you are unable to assume the duties of your position on the Effective Date, you are required to obtain the Company's written agreement to extend the Effective Date. Your base location will be Thanjavur, Tamil Nadu. However, you may be required to travel globally to perform your responsibilities. You will not engage in any other employment or business activity that detracts from or conflicts with your full-time performance of your duties and responsibilities for BOSON Labs. You shall observe regular work hours and shall be available outside such hours to the extent required by the Company. You acknowledge that this offer of employment is contingent on your stated ability, desire, and willingness to accept assignments at Company office sites or in specified geographical sales regions, which may be re-defined as the Company's marketing strategies develop.

2) Compensation and Benefits.

a) Compensation (CTC: 4 lakhs to 6.5 lakhs per annum depends on your training completion)

The package structure includes four components

1. Base salary
2. Performance Bonus
3. Monthly Allowances
4. Profit-Sharing Incentives

Other Allowances: Laptop, Mobile, Internet Access, Crypto Utility Bonus, Medical Reimbursement and Performance Incentives

Offer: Computer Consultancy
Ref: TCSL/DT20222884031/Chennai
Date: 25/11/2022

Mr. Vinoth Kumar
54/4dPookollai Street,
Near Step In Style Textile Shop,
Lakshmangudi-614102,
Tamilnadu.
Tel# 91-8098493397

Dear Vinoth Kumar,

Sub: Letter of Offer

Thank you for exploring career opportunities with TATA Consultancy Services Limited (TCSL). You have successfully completed our initial selection process and we are pleased to make you an offer.

This offer is based on your profile and performance in the selection process. You have been selected for the position of **Assistant System Engineer-Trainee** in Grade **Y**. You will be a part of the application development and maintenance projects across any of the business units of TCSL.

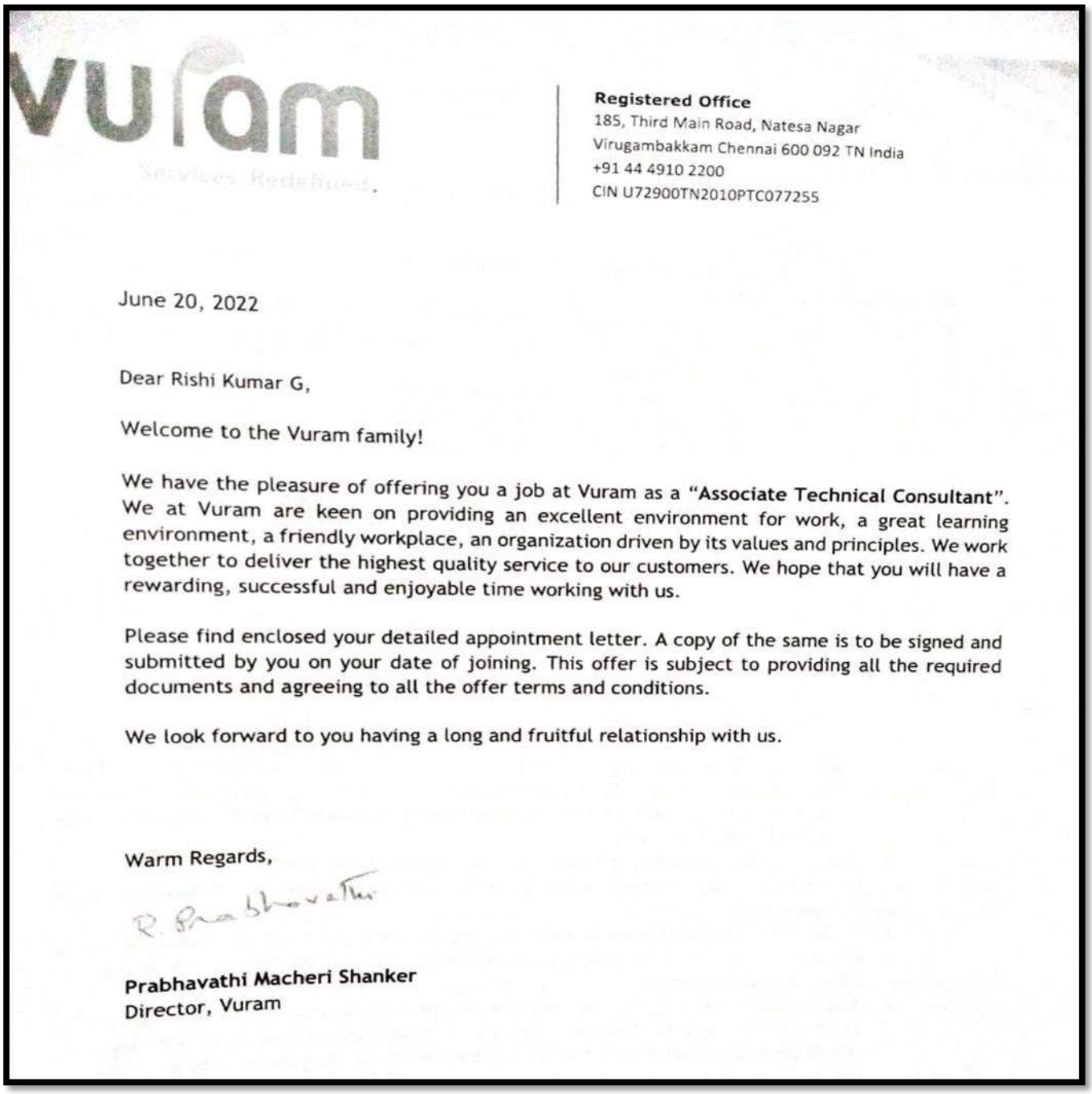
Your gross salary including all benefits will be **₹3,36,877/-** per annum, as per the terms and conditions set out herein. Over and above this, you will also be eligible for Learning Incentives (Readiness Incentive and/or Competency Incentive) basis your performance in TCS Xplore Program which gives you an additional earning potential of upto **Rs.60,000** during the first year.Annexure-1 provides the break-up of the compensation package.

Kindly confirm your acceptance of this offer online through the option 'Accept Offer letter'. If not accepted within 7 Days, it will be construed that you are not interested in this employment and this offer will be automatically withdrawn.

After you accept this offer, you will be given a joining letter indicating the details of your joining date and initial place of posting. The Joining letter will be issued to you only upon successful completion of your academic course, you meeting the TCS eligibility criteria & you completing the mandatory pre-joining learning curriculum named TCS Xplore (detailed under Terms &

TATA CONSULTANCY SERVICES
Tata Consultancy Services Limited
415/21-24, Kumaran Nagar, Sholinganallur, Old Mahabalipuram, Chennai 600 119 Tamil Nadu India
Tel: 91 44 6616 2222 Fax: 91 44 6616 2555 Website: www.tcs.com
Registered Office Nirmal Building, 9th Floor, Nariman Point, Mumbai 400 021
TCS Careers Serviceline: 1800 209 3111 Email: careers@tcs.com

Appointment order (sample Copy): 2021-2022



vuram
Services Redefined.

Registered Office
185, Third Main Road, Natesa Nagar
Virugambakkam Chennai 600 092 TN India
+91 44 4910 2200
CIN U72900TN2010PTC077255

June 20, 2022

Dear Rishi Kumar G,

Welcome to the Vuram family!

We have the pleasure of offering you a job at Vuram as a "**Associate Technical Consultant**". We at Vuram are keen on providing an excellent environment for work, a great learning environment, a friendly workplace, an organization driven by its values and principles. We work together to deliver the highest quality service to our customers. We hope that you will have a rewarding, successful and enjoyable time working with us.

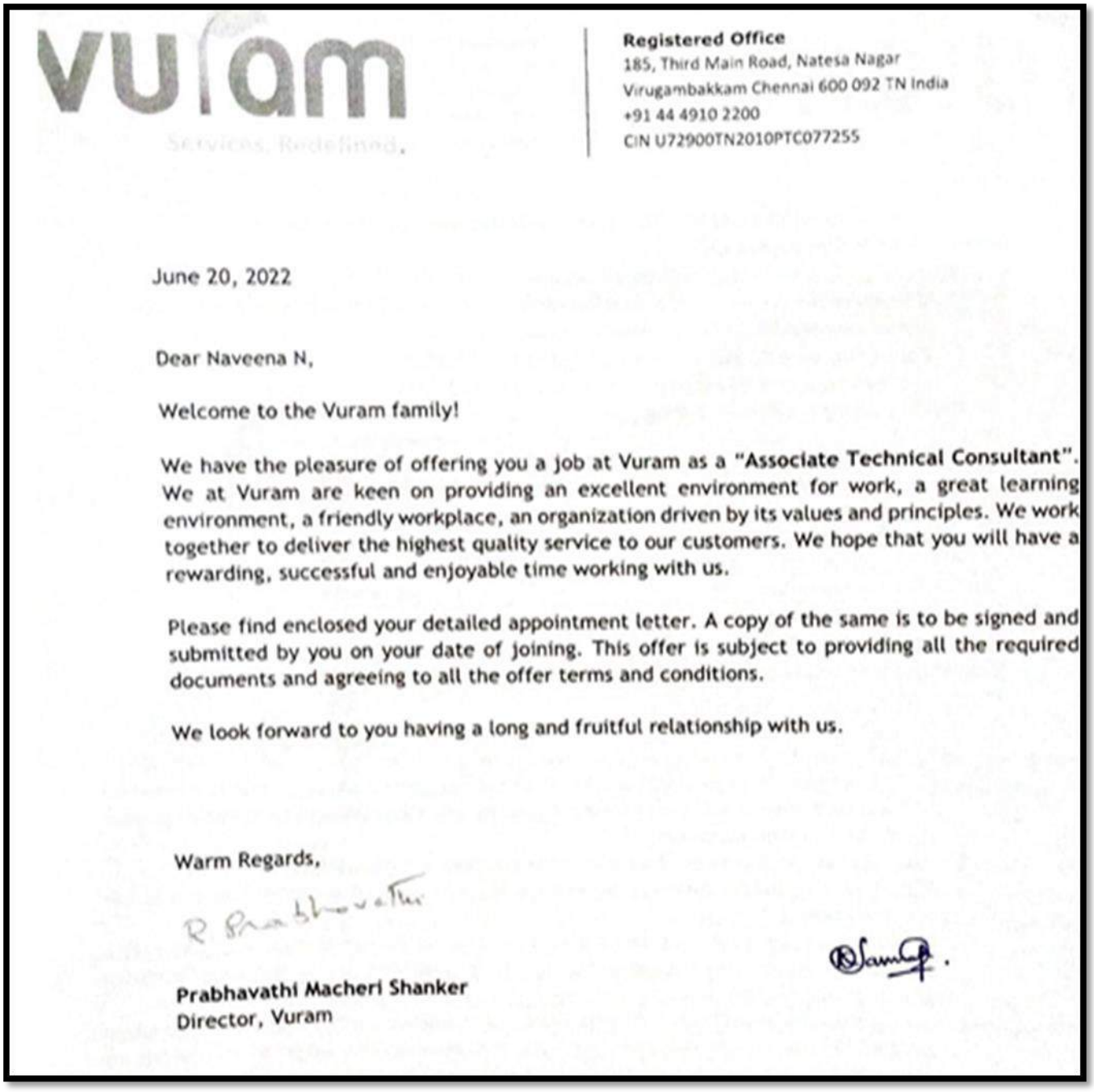
Please find enclosed your detailed appointment letter. A copy of the same is to be signed and submitted by you on your date of joining. This offer is subject to providing all the required documents and agreeing to all the offer terms and conditions.

We look forward to you having a long and fruitful relationship with us.

Warm Regards,

R. Prabhavathi

Prabhavathi Macheri Shanker
Director, Vuram



vuram

Services, Redefined.

Registered Office
185, Third Main Road, Natesa Nagar
Virugambakkam Chennai 600 092 TN India
+91 44 4910 2200
CIN U72900TN2010PTC077255

June 20, 2022

Dear Naveena N,

Welcome to the Vuram family!

We have the pleasure of offering you a job at Vuram as a **"Associate Technical Consultant"**. We at Vuram are keen on providing an excellent environment for work, a great learning environment, a friendly workplace, an organization driven by its values and principles. We work together to deliver the highest quality service to our customers. We hope that you will have a rewarding, successful and enjoyable time working with us.

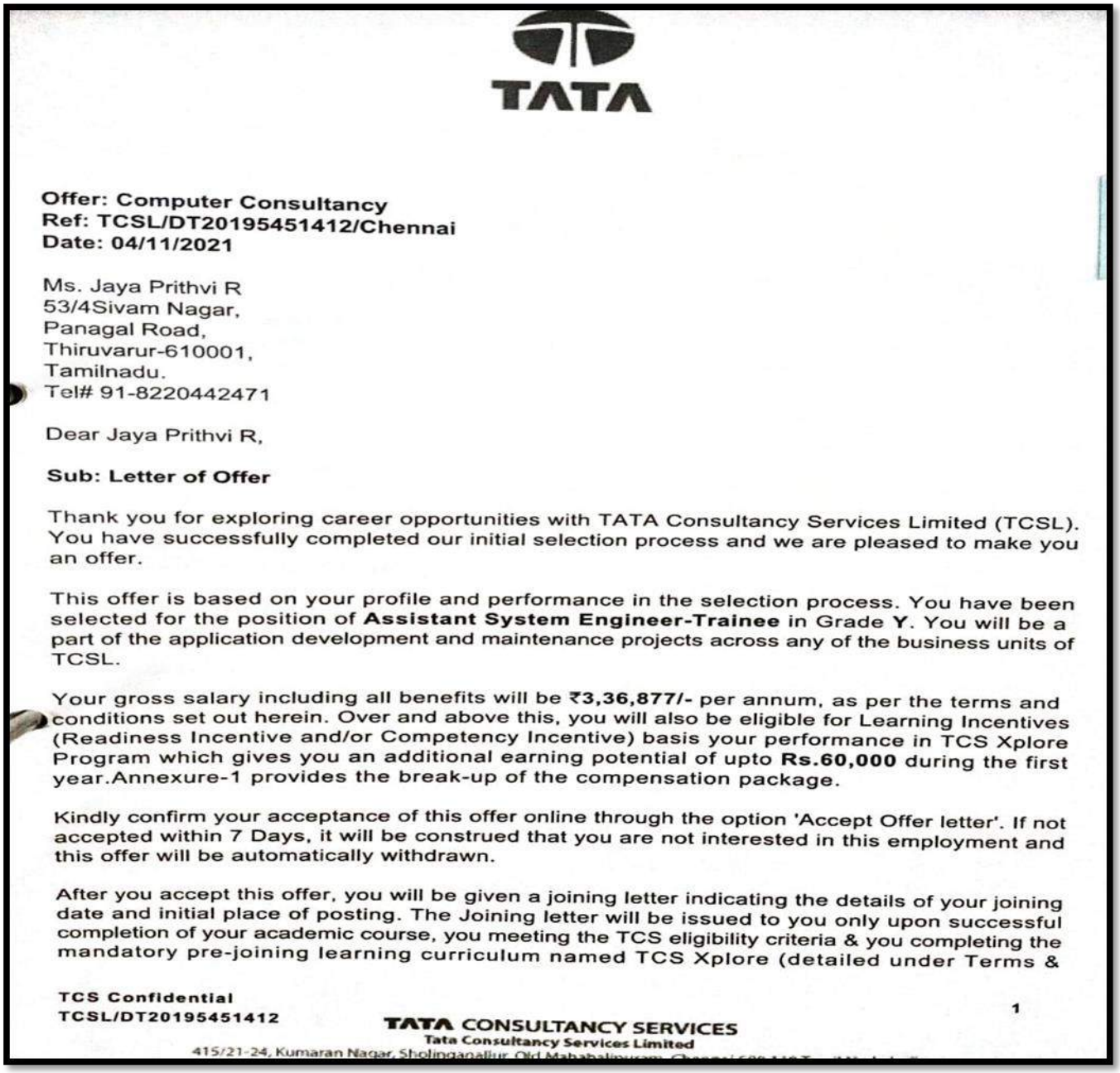
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We look forward to you having a long and fruitful relationship with us.

Warm Regards,

R Prabhavathi

Prabhavathi Macheri Shanker
Director, Vuram



TATA

Offer: Computer Consultancy
Ref: TCSL/DT20195451412/Chennai
Date: 04/11/2021

Ms. Jaya Prithvi R
53/4Sivam Nagar,
Panagal Road,
Thiruvarur-610001,
Tamilnadu.
Tel# 91-8220442471

Dear Jaya Prithvi R,

Sub: Letter of Offer

Thank you for exploring career opportunities with TATA Consultancy Services Limited (TCSL). You have successfully completed our initial selection process and we are pleased to make you an offer.

This offer is based on your profile and performance in the selection process. You have been selected for the position of **Assistant System Engineer-Trainee** in Grade **Y**. You will be a part of the application development and maintenance projects across any of the business units of TCSL.

Your gross salary including all benefits will be **₹3,36,877/-** per annum, as per the terms and conditions set out herein. Over and above this, you will also be eligible for Learning Incentives (Readiness Incentive and/or Competency Incentive) basis your performance in TCS Xplore Program which gives you an additional earning potential of upto **Rs.60,000** during the first year.Annexure-1 provides the break-up of the compensation package.

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After you accept this offer, you will be given a joining letter indicating the details of your joining date and initial place of posting. The Joining letter will be issued to you only upon successful completion of your academic course, you meeting the TCS eligibility criteria & you completing the mandatory pre-joining learning curriculum named TCS Xplore (detailed under Terms &

TCS Confidential
TCSL/DT20195451412

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TATA CONSULTANCY SERVICES
Tata Consultancy Services Limited
415/21-24, Kumaran Nagar, Sholinganallur, Old Mahabalipuram, Chennai

SysArc

SYSARC INFOMATIX PVT. LTD.

OFFER LETTER

Date: December 21, 2021

To,
S.Sakthi
5A, Kudiyana Street,Pattam, Thiruppanandal Thiruvidaimaruthur-Thaluk
Thiruppanandal , Thanjavur ,Tamil Nadu - 612504

Dear S.Sakthi,

Congratulations! We are pleased to offer you a position as Junior Software Engineer, beginning June 1, 2022 or as soon thereafter as possible. In order to ensure consistent description of job titles internally, the description of job titles may vary internally, but will not impact the scope of the role. The initial terms of your position with the Company are as set forth below.

1. POSITION

1.1. On your start date, you will begin working for the Company at the Company's office at Nandambakkam, Chennai. This will be your work location for training purposes. You may also be deputed at any of the Company's or client offices situated across India. You may, at the discretion of the Company, be transferred from one location to the other as per the Transfer Policy of the Company.

1.2. Your responsibilities in this position will be intimated to you by your reporting manager/supervisor and may change from time to time as per the requirements of the Company.

1.3. You will be required to undergo and complete an induction training to continue employment with us.

1.4. There is no fixed term for the employment and the same shall be 'at-will'. You agree to the best of your ability and experience that you will at all times loyally and conscientiously perform all of the duties and obligations required of and from the Company. During the term of your employment, you further agree that you will devote all of your business time and attention to the business of the

Sample: Appointment order (2023-2024)

ami
power • mange • secure

Date : 4/16/2024

Pre-offer Letter of Employment at AMI India

Dear Vinoth Kumar S

RE: Pre Offer of Employment for **System Software Engineer -Trainee** position at American Megatrends International India Private Limited, Chennai

I am delighted to inform you that our hiring committee has shortlisted you for the **System Software Engineer Trainee** position at American Megatrends International India Private Limited, Chennai, based on the success of your recent interview.

This pre-offer letter is intended as an expression of our interest in your candidacy to join AMI India but does not constitute a binding employment contract. A formal offer letter will be sent to you before your joining date on your completion of your graduate course and obtaining an engineering degree. Please note that while we are highly enthusiastic about your potential as a member of our team, the terms enclosed in the final offer letter may be as per the norms of employment at the time of joining and may vary from those discussed during your interviews.

Here is a brief outline of some preliminary terms of your proposed employment for your review:

You shall be hired for the position of System Software Engineer-Trainee at our office in 5th Floor, Block A, Ratsha's Tek Meadows, No 51, Rajiv Gandhi Salai (OMR), Sholinganallur, Chennai- 600 119. Your Date of Joining is expected to be in the month of **August 2024. AMI may inform you of changes to the joining date as per the company's sole discretion.**

- You shall be requested to work on our site as per the location leave calendar, unless specified otherwise.
- You shall be offer a competitive initial salary of ₹ **4,00,000 (Four Lakhs Only)** along with benefits like Employee Provident Fund, Group Medical Insurance, Personal Accident Insurance, Gratuity.
- You will be required to sign a Bond with American Megatrends International India Private Limited for 2 years for ₹ 4,00,000 (Four Lakhs Only)
- During probation, the employment is terminable by either side by giving 30 days' notice in writing or payment of 30 days salary in lieu thereof. After confirmation, the employment is terminable by either side by giving 90 days' notice in writing or payment of 90 days salary in lieu thereof.

Please understand that these terms are subject to further negotiations and may be modified before the formal offer of employment is issued.

Should our firm decision turn towards your favour, you will be required to undergo a background check and other prerequisite screening processes according to our company's policy.

While we finalize our internal procedures, please feel free to reach out to us should you have any questions or need additional information. We appreciate your patience in this matter and are excited about the possibility of you joining American Megatrends International India Private Limited.

Thank you for your time and continued interest in our company. To provide your consent to this pre-offer letter kindly provide your acceptance by replying to this email **by 23th April 2024.** Additionally, we request you to share all supporting documents as requested in the email for your application procedure.

We look forward to the possibility of welcoming you aboard.

Yours sincerely,

P. Senthil Kumar | Chief Manager- Human Resources | Mobile: 98000-54456

American Megatrends International India Pvt Ltd
5th Floor, Tower - A, Ratha's Tek Meadows, No. 51, Rajiv Gandhi Salai, Sholinganallur, Chennai – 600119
Tel: [+91] 44-66540922 Web: www.ami.com
CIN: U72200TN2018FTC124279 | GSTIN: 33AARCA2416J1ZP

Higher Studies sample (2020-2021)



7.4 Improvement in the quality of students admitted to the program (10)

ITEM		CAY (23-24)	CAY (22-23)	CAY (21-22)	CAY (20-21)	CAY (19-20)
TNEA (GQ)	No. of Students admitted	52	54	50	47	54
	Max.Cut.off	90	84	94.6	92.1	95.5
	Min.Cut.off	47	41	40.6	46.8	61.0
TNEA (MQ)	No. of Students admitted	31	31	31	30	34
	Max.cut.off	72.8	69	75.17	82.5	81.8
	Min.cutoff	45.3	41.6	48.17	47.5	45
Name of the Entrance Examination	No. of Students admitted	6	2	0	1	9
	TNEA(GQ) Max.Cut.off	90	67	N/A	81.2	95.2
	TNEA(MQ) Min.cutoff	N/A	67	N/A	N/A	67.4
Average CBSE/Any other Board Result of admitted students (Physics, Chemistry & Mathematics)		63.5	63.7	84	76	76

CRITERION 8

FIRST YEAR ACADEMICS

CRITERION 8	FIRST YEAR ACADEMICS	50

8.1 First Year Student Faculty Ratio (FYSFR) (5)

Year	No. of Students (approximate intake strength)	No. of faculty members (considering fractional load)	FYFSR	Assessment= (5x20)/FYFSR (limited to max. 5)
CAY(2023-24)	450	23	19.5	5
CAY (2022-23)	540	24	22.5	4.4
CAY (2021-22)	540	24	22.5	4.4
CAY m1 (2020-21)	540	26	20.8	4.8
CAYm2 (2019-20)	660	29	22.8	4.4

Note: if FYSFR is greater than 25, then assessment equal to zero.

8.2. Qualification of Faculty Teaching First Year Common Courses (5)

Assessment of qualification = (5x+3y)/RF, x = Number of regular faculty with Ph.D, y= Number of regular faculty with post-graduate qualification RF= Number of faculty members required as per SFR of 20:1

Year	x	y	RF	Assessment of faculty qualification (5x+3y)/RF
CAY(2023-24)	15	9	27	3.8
CAY (2022-23)	15	9	27	3.8
CAY (2021-22)	17	7	27	3.9
CAY m1 (2020-21)	18	8	27	4.2
CAYm2 (2019-20)	18	8	33	3.5
Average assessment				**3.9**

8.3. First Year Academic Performance (10)

Academic Performance= ((Mean of 1st year grade point Average of all successful students on a point scale) or (Mean of the percentage of marks in first year of all successful students/10), x (number of succesfull students/number of students appeared in the examination)

Academic Performance	CAYm1 (2022-23)			CAYm1 (2021-22)			CAYm2 (2020-21)			CAYm3 (2019-20)		
	Odd	Even	Aver.	Odd	Even	Aver.	Odd	Even	Aver.	Odd	Even	Aver.
Mean of CGPA or Mean percentage of all successful students (X)	8.04	7.95	8.00	7.81	7.86	7.84	7.86	8.91	8.42	7.70	8.24	8.29
Total Number of successful students (Y)	185	183	184	158	162	160	208	282	207	139	375	138
Total number of students appeared in the examination (Z)	351	351	351	345	339	342	283	283	283	377	375	375
API = (X*(Y/Z)	4.24	4.14	4.19	3.58	3.76	3.67	5.78	8.88	6.16	2.84	8.24	3.05
Average API = (AP1+AP2+AP3)/3	4.67											

8.4 Attainment of Course Outcomes of first year courses (10)

8.4.1 Describe the assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10)

The flowchart for attainment of Course Outcomes is shown in Figure 3.1

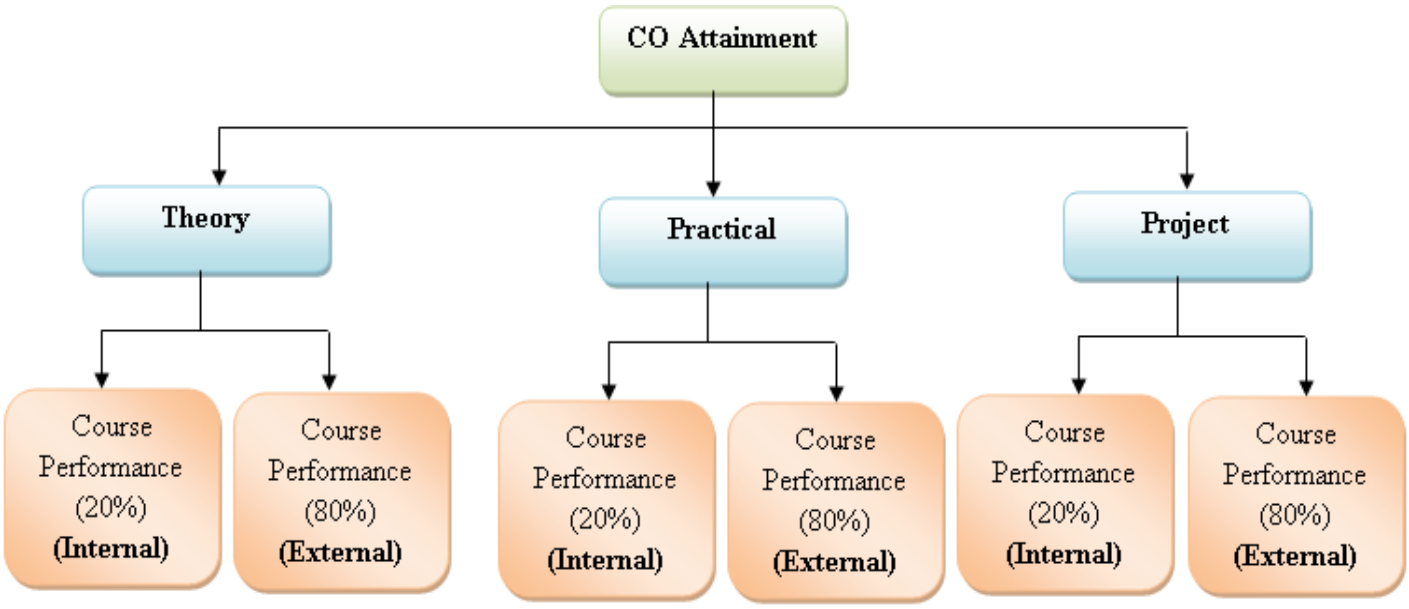


Figure 8.1 Flowchart for attainment of Course Outcomes Measuring Tools

Theory Course Performance – Internal Assessment

Internal Assessment performance is calculated based on the marks scored by the student in Continuous Internal Assessment Test – I (50), Continuous Internal Assessment Test - II (50) and Model Examination (100).

The COs are distributed as shown in Table 8.1

Table 8.1 Distribution of %Cos (Theory)

Assessment Type	CO1	CO2	CO3	CO4	CO5
IAT – 1	64%	36%			
IAT – 2		36%	64%		
IAT – 3	20%	20%	20%	20%	20%

The overall Percentage Distribution for assessing COs based on Internal assessment tests for theory subjects is shown in Table 8.2.

Table 8.2 Distribution % of Assessment Methods

Assessment Type	IAT – 1	IAT – 2	IAT – 3
% Distribution	33.33%	33.33%	33.33%

The assessment values were converted for **20%** as internal marks

Theory Course Performance – University Assessment

The University Examination is conducted for 100 Marks with 3 hours duration. All the COs are distributed evenly as shown in Table 8.3.

Table 8.3 Distribution of COs for University Theory Examination

Assessment Type	CO1	CO2	CO3	CO4	CO5
University Exam	20%	20%	20%	20%	20%

Laboratory Course Assessment

Lab Performance – Internal Assessment

The Lab experiments address the COs of the respective Lab courses. During the Laboratory session, all the experiments are practically done using various equipments and software to enrich their knowledge in various domains. The students maintain the observation and record notebook for each Laboratory course which reflects their work during the laboratory session and verified by the respective subject handling staff.

Experiments conducted by the students will be evaluated by the faculty members out of 10 marks for each experiments and the 10 marks awarded will address to relevant COs.

Table 8.4 Distribution of %COs for Laboratory

Assessment Type	CO1	CO2	CO3
Experiment Evaluation	30%	40%	30%

Laboratory Course Assessment

Lab Performance – University Assessment

The University Examination is conducted for 100 Marks with 3 hours duration. All the COs are distributed evenly as shown in Table 8.5

Table 8.5 Distribution of COs for Laboratory University Examination

Assessment Type	CO1	CO2	CO3
Experiment Evaluation	30%	40%	30%

8.4.2 Record the attainment of Course Outcomes of all first year courses (5)

Level 1 : 65% and above students scoring a pass marks in the University Examination

Level 2 : 75% and above students scoring a pass marks in the University Examination

Level 3 : 85% and above students scoring a pass marks in the University Examination

S.No	Course code	Subject code	Subject	No of students appeared	No of students getting 50 marks and above	percentage	attainment	Remark
1.	C101	HS8151	Communicative English	81	78	96	2.938	Attained
2.	C102	MA8151	Engineering Mathematics - I	81	28	34.56	2.7	Attained
3.	C103	PH8151	Engineering Physics	81	60	74	2.298	Attained
4.	C104	CY8151	Engineering Chemistry	81	64	79	2.352	Attained
5.	C105	GE8151	Problem Solving and Python Programming	81	70	86	2.92	Attained
6.	C106	GE8152	Engineering Graphics	81	69	85	2.74	Attained
7.	C107	GE8161	Problem Solving and Python Programming Laboratory	81	81	100	2.73	Attained
8.	C108	BS8161	Physics and Chemistry Laboratory	81	81	100	2.93	Attained
9.	C109	HS8251	Technical English	81	65	80	2.92	Attained
10.	C110	MA8251	Engineering Mathematics - II	81	72	88.8	2.7	Attained
11.	C111	PH8251	Physics for Information Science	81	67	82.7	2.87	Attained
12.	C112	BE8255	Basic Electrical and Electronics And measurement Engineering	81	56	69.13	1.52	Not Attained
13.	C113	GE8291	Environmental Science and	81	69	85.18	2.96	Attained

			Engineering					
14.	C114	CS8251	Programming in C	81	61	75	1.70	Not Attained

S.No	Sem	Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1.	1	C101	Communicative English									3	3		1

15.	C115	GE8261	Engineering Practices Laboratory	81	81	100	2.93	Attained
16.	C116	CS8261	Programming in C Laboratory	81	81	100	2.73	Attained

8.5 Attainment of Program Outcomes from first year courses (20)

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15)

Program level Course-PO matrix of all first year courses regulation 2017

2.	1	C102	Engineering Mathematics - I	3	2										1
3.	1	C103	Engineering Physics	3	1										1
4.	1	C104	Engineering Chemistry	3	2										3
5.	1	C105	Problem Solving and Python Programming	3	2	2		2							1
6.	1	C106	Engineering Graphics	3	2								3		
7.	1	C107	Problem Solving and Python Programming Laboratory	3	3	2					2	2	2		
8.	1	C108	Physics and Chemistry Laboratory	3								1			
9.	2	C109	Technical English									3	3		1
10.	2	C110	Engineering Mathematics - II	3	2										1
11.	2	C111	Physics for Information Science	3	1										
12.	2	C112	Basic Electrical and Electronics And measurement Engineering	3	2	1									
13.	2	C113	Environmental Science and Engineering	3	3										3
14.	2	C114	Programming in C	3	2	1					3	3	2		2
15.	2	C115	Engineering Practices Laboratory	2	2				2.3	2.3		3	2.6	2	
16.	2	C116	Programming in C Laboratory	2	2	2					2.6	3	2.6		3

Program level Course-PSO matrix of all first year courses

S.No	Sem	Course Code	Course Title	PSO1	PSO2	PSO3
1.	1	C101	Communicative English	1	1	1
2.	1	C102	Engineering Mathematics - I	3	2	1
3.	1	C103	Engineering Physics	1		
4.	1	C104	Engineering Chemistry	1	1	1
5.	1	C105	Problem Solving and Python Programming	3	2	3
6.	1	C106	Engineering Graphics	1	3	2
7.	1	C107	Problem Solving and Python Programming Laboratory	3	3	3
8.	1	C108	Physics and Chemistry Laboratory	1	1	1
9.	2	C109	Technical English	1	1	1
10.	2	C110	Engineering Mathematics - II	2	1	1
11.	2	C111	Physics for Information Science	1	1	1
12.	2	C112	Basic Electrical and Electronics And measurement Engineering	1	2	3

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13.	2	C113	Environmental Science and Engineering	1	1	1
14.	2	C114	Programming in C	3	2	1
15.	2	C115	Engineering Practices Laboratory	3	2	1
16.	2	C116	Programming in C Laboratory	3	2	1

Indicate results of evaluation of ezch relevant PO and/ or PSO

PO's attainment

S.No	Sem	Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1.	1	C101	Communicative English									2.94	2.94		2.94
2.	1	C102	Engineering Mathematics - I	2.7	2.7										2.7
3.	1	C103	Engineering Physics	2.3	2.3										2.3
4.	1	C104	Engineering Chemistry	2.35	2.35										2.35
5.		C105	Problem Solving and Python Programming	2.62	2.62	2.62		2.62							2.62
6.	1	C106	Engineering Graphics	2.75	2.75								2.75		
7.	1	C107	Problem Solving and Python Programming Laboratory	2.73	2.73	2.73					2.73	2.73	2.73		2.73
8.	1	C108	Physics and Chemistry Laboratory	2.93								2.93			
9.	2	C109	Technical English									2.92	2.92		2.92
10.	2	C110	Engineering Mathematics - II	2.7	2.7										2.7
11.	2	C111	Physics for Information Science	2.87	2.87										
12.	2	C112	Basic Electrical and Electronics And measurement Engineering	1.52	1.52	1.52									
13.	2	C113	Environmental	2.97	2.97										2.97

			Science and Engineering												
14	2	C114	Programming in C	2.62	2.62	2.62					2.62	2.62	2.62		2.62
15	2	C115	Engineering Practices Laboratory	2.93	2.93				2.93	2.93			2.93	2.93	
16	2	C116	Programming in C Laboratory	2.73	2.73	2.73					2.73	2.73	2.73		2.73

PSO's Attainment

S.No	Sem	Course Code	Course Title	PSO1	PSO2	PSO3
1.	1	C101	Communicative English	2.94	2.94	2.94
2.	1	C102	Engineering Mathematics - I	2.70	2.70	2.70
3.	1	C103	Engineering Physics	2.29		
4.	1	C104	Engineering Chemistry	2.35	2.35	2.35
5.	1	C105	Problem Solving and Python Programming	3	3	3
6.	1	C106	Engineering Graphics	2.75	2.75	2.75
7.	1	C107	Problem Solving and Python Programming Laboratory	3	3	3
8.	1	C108	Physics and Chemistry Laboratory	2.93	2.93	2.93
9.	2	C109	Technical English	2.92	2.92	2.92
10.	2	C110	Engineering Mathematics - II	2.70	2.70	2.70
11.	2	C111	Physics for Information Science	2.87	2	
12.	2	C112	Basic Electrical and Electronics And measurement Engineering	1.52	1.52	1.52
13.	2	C113	Environmental Science and Engineering	2.97	2.97	2.97
14.	2	C114	Programming in C	0.9	0.9	0.9
15.	2	C115	Engineering Practices Laboratory	2.93	2.93	2.93
16.	2	C116	Programming in C Laboratory	3	3	3

8.5.2 Actions taken based on the results of evaluation of relevant POs (5)

POs Attainment Levels and Actions for Improvement- (2021-22)

PO's	Target Level	Attainment Level	Observations
PO1 Engineering Knowledge Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.			
PO1	**2.55**	**2.62**	Target Achieved Findings for improvement 1.Environmental science and

			engineering 1. Basic knowledge of eco system is not well understood.
Action: Bridge Courses were conducted to refresh fundamental concepts and frequently asked university question papers will be given as assignment for practice.			
PO's	Target Level	Attainment Level	Observations
PO2 Problem Analysis Identify, formulate, review research literature and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.			
PO2	**2.55**	**2.59**	Target Achieved Findings for improvement Environmental science and engineering 1. Students need to refer more number of reference books . 2. Principles of natural sciences was not understood clearly.
Action: 1.Students were instructed to refer more number of reference books available in the main library. 2. Additional classes were conducted to refresh principles of natural sciences.			
PO's	Target Level	Attainment Level	Observations
PO3 Design/ Development of Solutions Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.			
PO3	**2.55**	**2.44**	Target Not Achieved 1. Students need to refer more number of reference books . 2. Design solutions for complex engineering problems was not understood clearly.
Action: Additional tutorial classes were conducted to address complex engineering problems.			
PO's	Target Level	Attainment Level	Observations

PO4 Conduct Investigation of Complex Problems Use research-based knowledge and research methods including design of experiments, analysis and interpretations of data, and synthesis of the information to provide valid conclusions.			
PO4	**2.55**	**0.00**	Target Achieved
Action : Nil			
PO's	Target Level	Attainment Level	Observations
PO5 Modern Tool Usage Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.			
PO5	**2.55**	**2.62**	Target Achieved
Action: Nil			
PO's	Target Level	Attainment Level	Observations
PO6 The Engineering and Society Apply reasoning informed by the contextual knowledge to access societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.			
PO6	**2.55**	**2.93**	Target Achieved Findings for improvement 1.Environmental science and engineering 2. Lack of contextual knowledge to access scocietal,health,safety and legal issues.
Action: 1. Additional classes were conducted to refresh contextual knowledge to access scocietal,health,safety and legal issues.			
PO's	Target Level	Attainment Level	Observations
PO7 Environment and Sustainability Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development.			
PO7	**2.55**	**2.93**	Target not Achieved Findings for improvement 1.Environmental science and engineering 1.lack of understanding in sustainable development

			activities
Action : : 1. . Additional classes were conducted to refresh sustainable development activities			
PO's	Target Level	Attainment Level	Observations
PO8 Ethics Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO8	**2.55**	**2.69**	Target Achieved
Action: Nil			
PO's	Target Level	Attainment Level	Observations
PO9 Individual and Team Work Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.			
PO9	**2.55**	**2.81**	Target Achieved
Action:			
PO's	Target Level	Attainment Level	Observations
PO10 Communication Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.			
PO10	**2.55**	**2.80**	Target Achieved Findings for improvement 1.Engineering Graphics 1. Students find it difficult to present the given conditions of the problem effectively.
Action: Bridge Courses were conducted to refresh fundamental concepts and frequently asked university question papers will be given as assignment for practice.			
PO's	Target Level	Attainment Level	Observations
PO11 Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments			
PO11	**2.55**	**2.93**	Target Achieved
Action;Nil .			
PO's	Target Level	Attainment Level	Observations
PO12 Life-long learning Recognise the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.			

PO12	**2.55**	**2.68**	Target Achieved
Action:Nil			

PSOs Attainment Levels and Actions for Improvement- (2021-22)

PSO's	Target Level	Attainment Level	Observations
Graduates will take up careers in Thermal, Manufacturing, Design and Automobile related sectors.			
PSO1	**2.55**	**2.59**	**Target Achieved**
Action : Nil			
PSO's	Target Level	Attainment Level	Observations
Graduates will Design and develop products, utilize their knowledge and skills as engineer start their own ventures as entrepreneurs.			
PSO2	**2.55**	**2.59**	**Target Achieved**
Action : Nil			
PSO's	Target Level	Attainment Level	Observations
Graduates will take up educational program in mastering Mechanical Engineering Science and Management.			
PSO3	**2.55**	**2.61**	**Target Achieved**
Action : Nil			

CRITERION 9	STUDENT SUPPORT SYSTEMS	50

9.1 Mentoring system to help at individual level (5)

A well framed Mentoring system is available in our institution. Each mentor is allotted with 15 students from a class. The responsibility of the mentor is to monitor the overall performance of the mentee student. The mentor has following responsibilities

- Monitor academic performance
- Monitor attendance
- Encourage participation in co-curricular and extracurricular activities
- Provide support for placement activities
- Monitor the discipline Personal counseling to discuss and provide remedial measures for problems faced by the student.
- Any other issue that will aid in the grooming of a student

Performance of the mentee is tracked by the mentor in a counseling record which consists of all the details to monitor the progress of student. The counseling record consist of following details about each student

- Personal Information
- Academic performance in internal and university Exams
- Attendance of student Co-curricular and extracurricular activities
- Details about project
- Details about placement

Minimum of three counseling sessions are conducted by the mentor for each student in a semester. However a mentee can meet the mentor whenever required.

The details about allotting mentor to mentee and sample counseling record are given below

Table 9.1.1. a: Details of mentors and students allotted in the academic year 2021-2022

S. NO	YEAR & STRENGTH	REGISTERNUMBER	NO OF RECORDS	NAME	MOBILE
1	II Year (83)	820420104002-26	25	Mr.K.BalaSubramanian	9600466367
		820420104027-46	20	Mrs.P.Immaculate RexiJenifer	8870637890
		820420104047-65	19	Ms.K.Karthiga	9597518573
		820420104066-84	19	Mr.P.Dinesh	7708731903
2	III Year (85)	820419104001-14 820419104016-26	25	Mr.N.VijayaKrishnan	9787260455
		820419104027-51	25	Mrs.R.P.Sathya	8610076601
		820419104053-66 820419104068-71	18	Mrs.S.FarjanaFarvin	9965238268
		820419104072-302	17	Mrs.G.Kalaiselvi	8300827956
3	IV Year (81)	820418104001-17	17	Mrs.P.Elakkiya	7092727230
		820418104018-34	17	Mr.K.Pazhanivel	9865230410
		820418104035-50	16	Mr.P.ManikandaPrabhu	9442861960
		820418104051-66	16	Mr.R. Arunachalam	9952492704
		820418104067-701	15	Mr.N.Poongavanam	8248405752

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Table 9.1.1.b: Details of mentors and students allotted in the academic year 2022-2023

S.NO	YEAR & STRENGTH	REGISTER NUMBER	NO OF RECORDS	NAME	MOBILE NUMBER
1	II Year (88)	820421104001-20	19	Mr.P.Dinesh	7708731903
		820421104021-36	16	Mr.K.Pazhanivel	9865230410
		820421104037-53	17	Mr.P.Manikanda Prabhu	9442861960
		820421104054-70	17	Mr.R.Arunachalam	9952492704
		820421104071-89	19	Mr.T.Vigneswari	8248405752
2	III Year (90)	820420104002-26	25	Mrs. Grace Mary	9600466367
		820420104027-46	20	Mrs.P.Immaculate Rexi Jenifer	8870637890
		820420104047-65	19	Mrs.K.Karthiga	9597518573
		820420104066-91	26	Mrs.K.Nithya	9962425308
	IV Year (84)	820419104002-14 820419104016-26	24	Mr.N.Vijaya Krishnan	9787260455
		820419104027-51	25	Mrs.R.P.Sathya	8610076601
		820419104053-66 820419104068-71	18	Mrs.S.FarjanaFarvin	9965238268
		820419104072-302	17	Mrs.G.Kalaiselvi	8300827956

Sample Counseling Record: Student Name: G.Vaishanavi

PERSONAL DETAILS:

1.	Name of the Student	VAISHNAVI.G
2.	Date of Birth	13.11.2000
3.	email id of the Student	vaishnavisindhu0@gmail.com
4.	Student's Bank Account No. (INDIAN BANK)	– 6846545825 AAMEC-vaishnavi
5.	Aadhaar No.	9231 9213 8700
6.	Blood Group	O+ve
7.	Date of Admission	13.08.2018
8.	Name of the School / Institution last studied	SRI MATHA MATRIC HIGHER SECONDARY SCHOOL, KUMBAKONAM
9.	Percentage of Marks in Qualifying Examination	83.16%
10.	Aggregate Marks in Qualifying Examination	169.75
11.	Stream of Study	Academic ☑ / Vocational ☐
12.	Medium of Instruction	Tamil ☐ / English ☑ / Others ☐
13.	Quota	Govt. Quota ☑ / Management Quota ☐
14.	Father's / Guardian's Name	GNANASEKARAN.R
	Father's / Guardian's Educational Qualification	B.A, D.CO-OP
	Occupation	CLERK
	Mobile No.	9487781392
	Land line with STD Code	–
15.	Mother's Name	CHITRA.R
	Educational Qualification	M.Sc., M.Ed., M.Phil,
	Occupation	HEADMISTRESS
	Mobile No.	9442181892
	Land line with STD Code	–
16.	Address for Communication (with Pin code)	Plot No: 46, Arokiya Samy Nagar, Sri Nagar Colony, Kumbakonam – 612001

Plot NO: 2 Jayasri nagar
Kosiriattu kaduppam, Kumbakonam
612.501

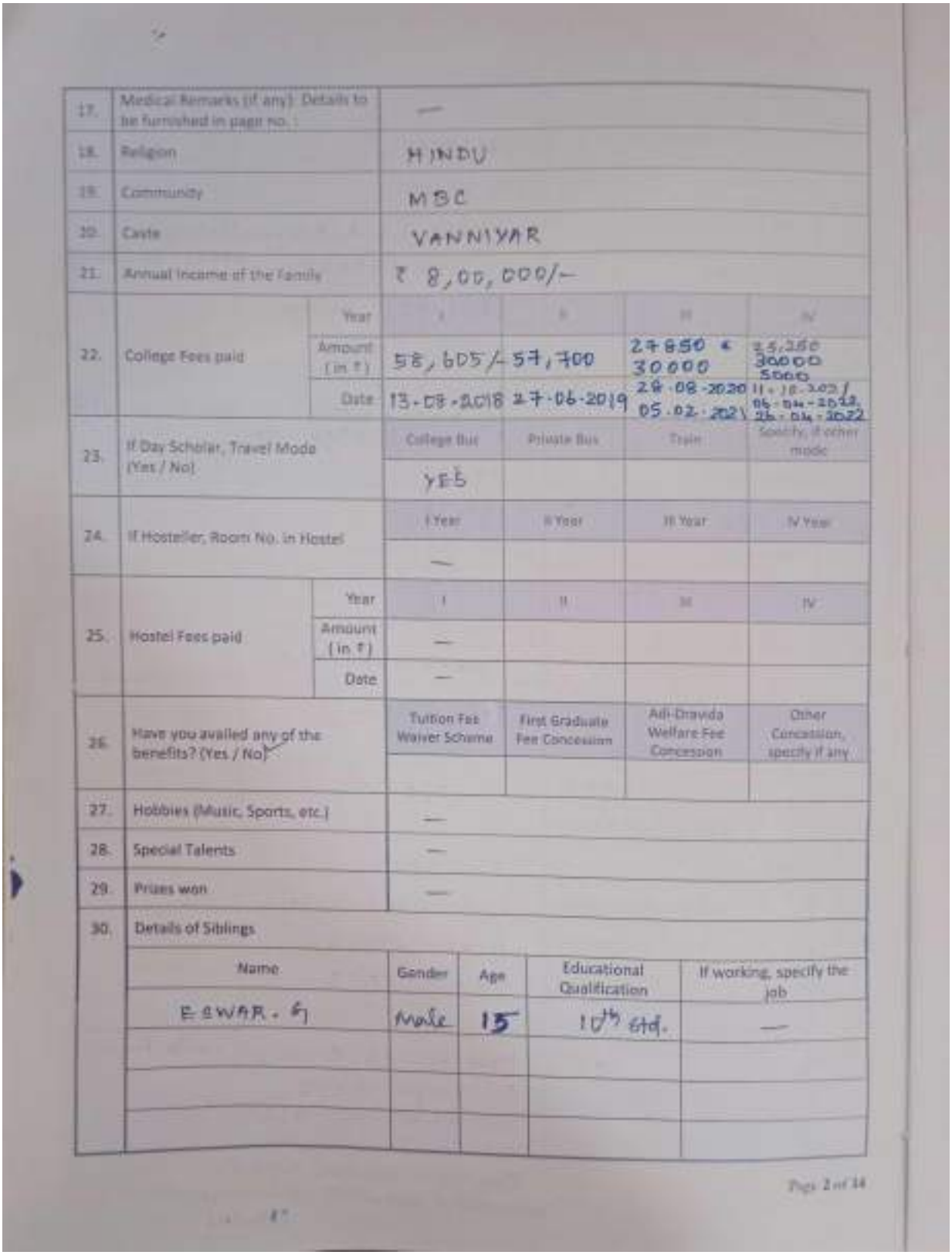
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17.	Medical Remarks (if any): Details to be furnished in page no. :	—				
18.	Religion	HINDU				
19.	Community	MBC				
20.	Caste	VANNIYAR				
21.	Annual Income of the Family	₹ 8,00,000/-				
22.	College Fees paid	Year	I	II	III	IV
		Amount (in ₹)	58,605/-	57,700	27850 + 30000	25,250 30000 5000
		Date	13-08-2018	27-06-2019	28-08-2020 05-02-2021	11-10-2021 06-04-2022 25-04-2022
23.	If Day Scholar, Travel Mode (Yes / No)	College Bus	Private Bus	Train	Specify, if other mode	
		YES				
24.	If Hosteller, Room No. in Hostel	I Year	II Year	III Year	IV Year	
		—				
25.	Hostel Fees paid	Year	I	II	III	IV
		Amount (in ₹)	—			
		Date	—			
26.	Have you availed any of the benefits? (Yes / No)	Tuition Fee Waiver Scheme	First Graduate Fee Concession	Adi-Dravida Welfare Fee Concession	Other Concession, specify if any	
27.	Hobbies (Music, Sports, etc.)	—				
28.	Special Talents	—				
29.	Prizes won	—				
30.	Details of Siblings					

Name	Gender	Age	Educational Qualification	If working, specify the job
EGWAR. G	Male	15	10th Std.	—

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Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

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31. CO-CURRICULAR ACTIVITIES:

Sl. No.	Semester	Date	Venue	Details of the Programme	Participation / Prize won

32. EXTRA CURRICULAR ACTIVITIES:

Sl. No.	Semester	Date	Venue	Details of the Event	Participation / Prize won

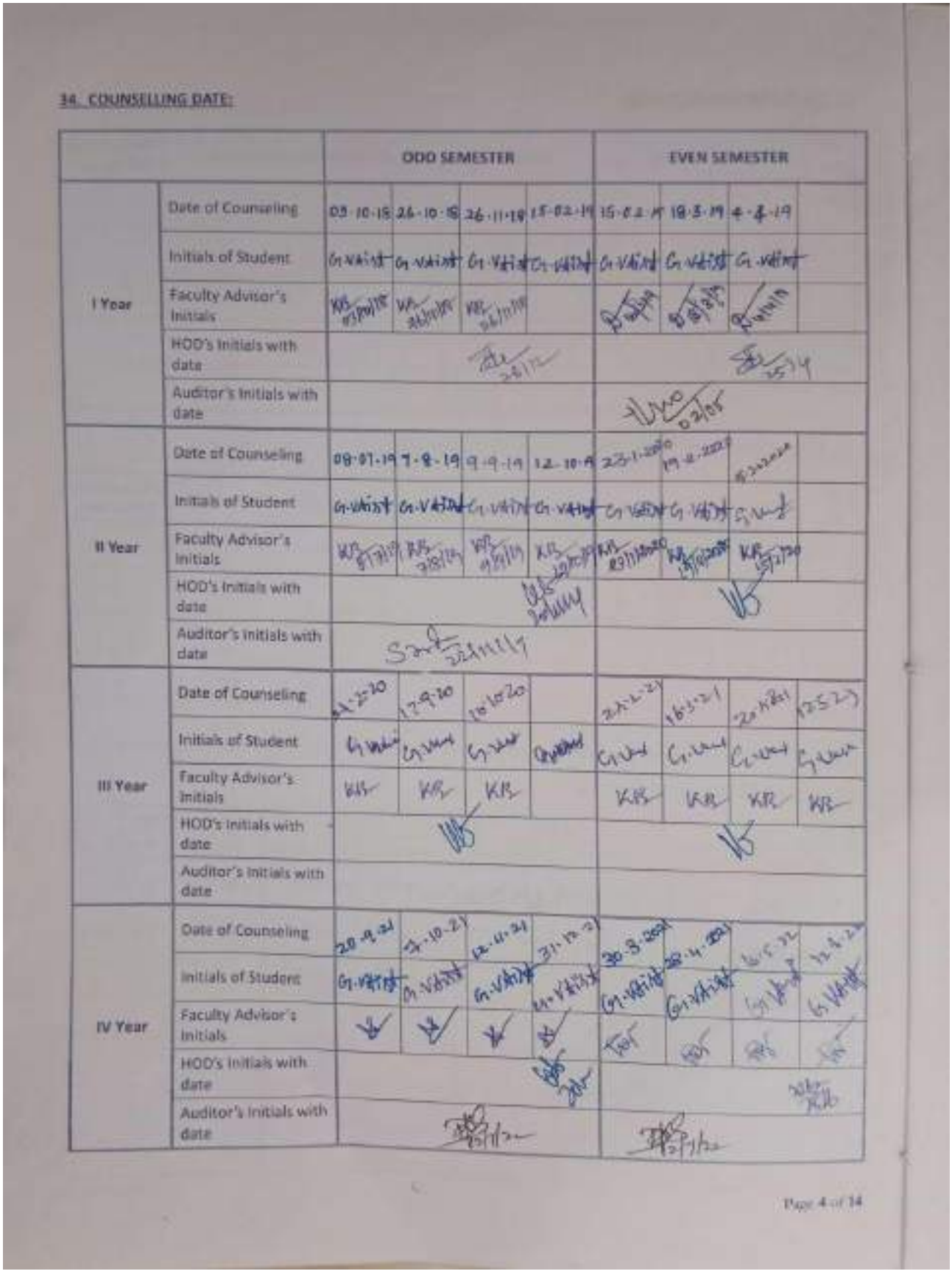
33. DATE OF INTIMATION TO PARENT:

I Year		II Year		III Year		IV Year	
Odd Sem.	Even Sem.	Odd Sem.	Even Sem.	Odd Sem.	Even Sem.	Odd Sem.	Even Sem.
24-10-2018	T 3 19	19/9/19	6/3/2020	30.9.20	30.3.21	29.8.21	16/6/22
23-11-2018	6.4.19	18/10/19	10.3.20	26.10.20	22.4.21	10.12.21	16/6/22
12-12-2018	24.4.19			9.10.20	25.5.21	06.12.21	

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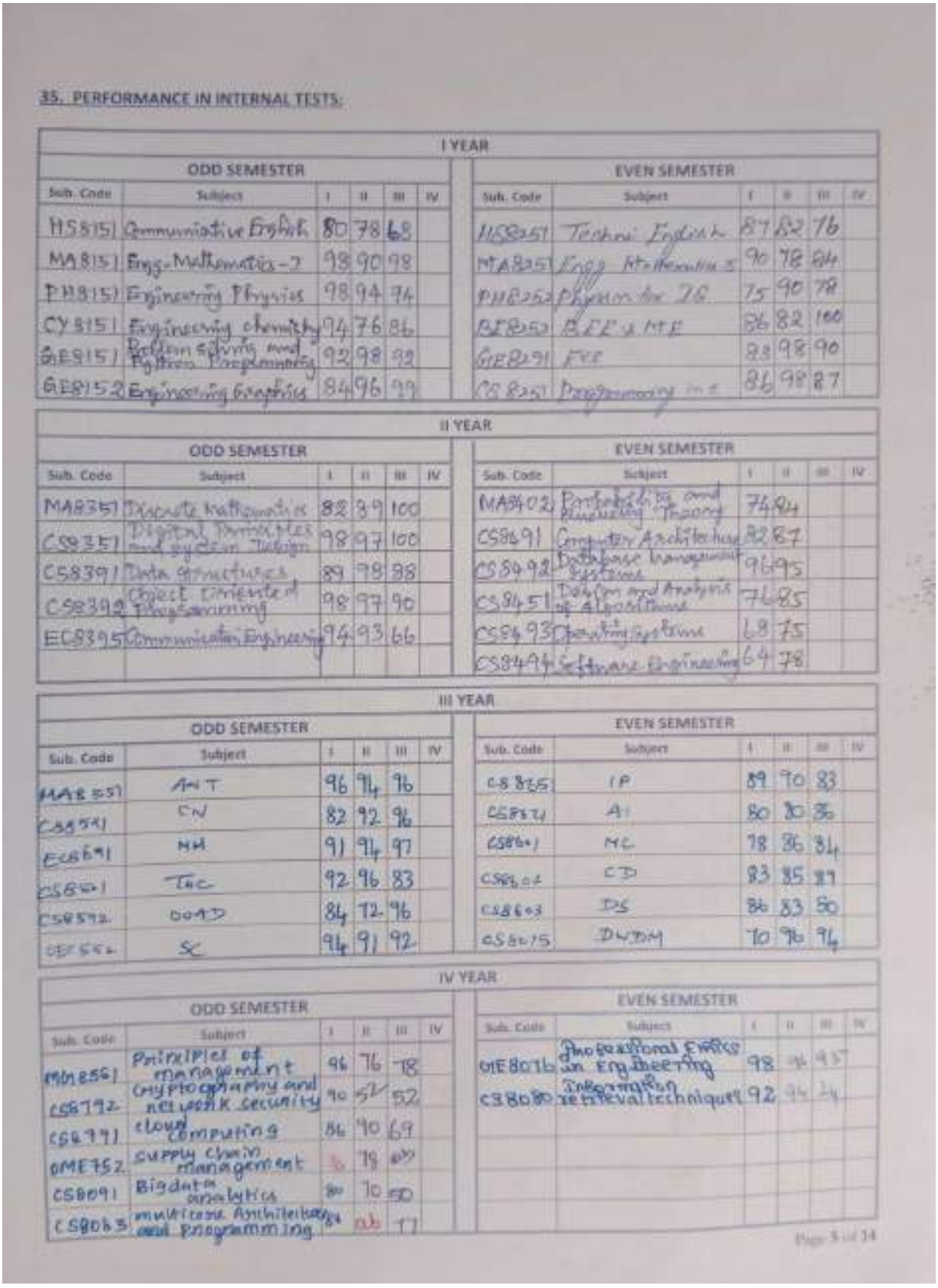
34. COUNSELLING DATE:

		ODD SEMESTER				EVEN SEMESTER			
I Year	Date of Counseling	03-10-18	26-10-18	26-11-18	15-02-19	15-02-19	18-3-19	4-4-19	
	Initials of Student	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani	
	Faculty Advisor's Initials	KR 03/10/18	KR 26/10/18	KR 26/11/18					
	HOD's Initials with date	28/11				25/4			
	Auditor's Initials with date	02/05							
II Year	Date of Counseling	08-07-19	7-8-19	9-9-19	12-10-19	23-1-2020	19-2-2020		
	Initials of Student	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani	
	Faculty Advisor's Initials	KR 8/7/19	KR 3/8/19	KR 9/9/19	KR 12/10/19	KR 23/1/2020	KR 19/2/2020	KR 15/2/20	
	HOD's Initials with date								
	Auditor's Initials with date	22/11/19							
III Year	Date of Counseling	21-2-20	17-9-20	10-10-20		23-2-21	16-3-21	20-Apr	12-5-21
	Initials of Student	G. Vani	G. Vani	G. Vani		G. Vani	G. Vani	G. Vani	G. Vani
	Faculty Advisor's Initials	KR	KR	KR		KR	KR	KR	KR
	HOD's Initials with date								
	Auditor's Initials with date								
IV Year	Date of Counseling	20-9-21	7-10-21	12-4-21	31-12-21	30-3-2022	28-4-2022	6-5-22	12-5-22
	Initials of Student	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani	G. Vani
	Faculty Advisor's Initials								
	HOD's Initials with date								
	Auditor's Initials with date	25/1/22				25/5/22			

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35. PERFORMANCE IN INTERNAL TESTS:

I YEAR

ODD SEMESTER						EVEN SEMESTER					
Sub. Code	Subject	I	II	III	IV	Sub. Code	Subject	I	II	III	IV
HS8151	Communicative English	80	78	68		HS8251	Technical English	87	82	76	
MA8151	Engg. Mathematics-I	98	90	98		MA8251	Engg. Mathematics-II	90	78	64	
PH8151	Engineering Physics	98	94	74		PH8252	Physics for IT	75	90	78	
CY8151	Engineering chemistry	94	76	86		BE8253	BEE & ME	86	82	100	
GE8151	Problem solving and Python Programming	92	98	92		GE8291	EVS	93	98	90	
GE8152	Engineering Graphics	84	96	99		CS8251	Programming in C	86	98	87	

II YEAR

ODD SEMESTER						EVEN SEMESTER					
Sub. Code	Subject	I	II	III	IV	Sub. Code	Subject	I	II	III	IV
MA8351	Discrete Mathematics	82	89	100		MA8402	Probability and Queueing Theory	74	84		
CS8351	Digital Principles and System Design	98	97	100		CS8691	Computer Architecture	82	87		
CS8391	Data Structures	89	98	88		CS8492	Database Management Systems	96	95		
CS8392	Object Oriented Programming	98	97	90		CS8451	Design and Analysis of Algorithms	76	85		
EC8395	Communication Engineering	94	93	66		CS8493	Operating Systems	68	75		
						CS8494	Software Engineering	64	78		

III YEAR

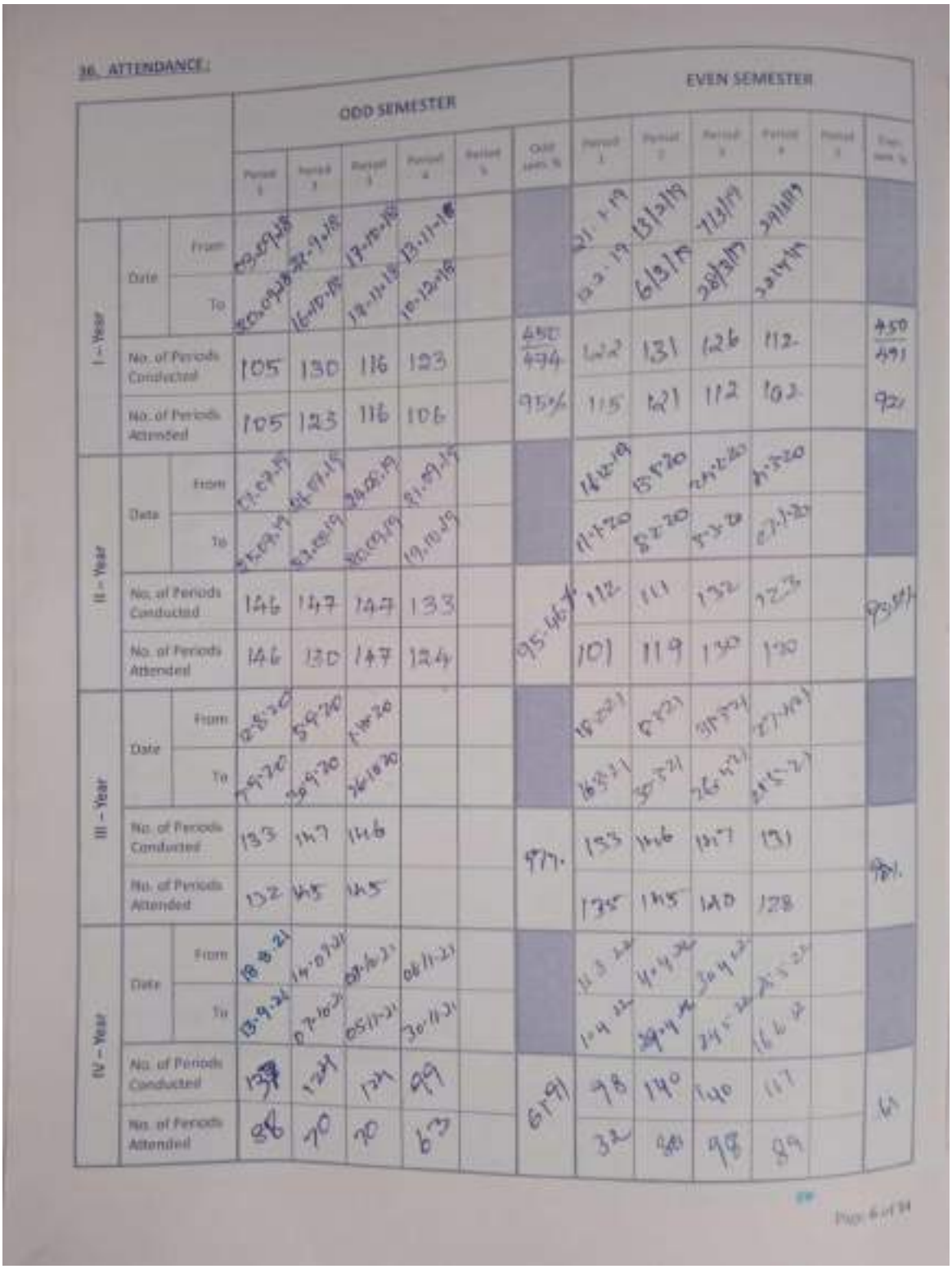
ODD SEMESTER						EVEN SEMESTER					
Sub. Code	Subject	I	II	III	IV	Sub. Code	Subject	I	II	III	IV
MA8551	AN T	96	94	96		CS8651	IP	89	90	83	
CS8591	CN	82	92	96		CS8792	AI	80	80	86	
EC8691	MM	91	94	97		CS8601	MC	78	86	84	
CS8601	IoC	92	96	83		CS8602	CD	83	85	87	
CS8592	OOAD	84	72	96		CS8603	DS	86	83	50	
OE8552	SC	94	91	92		CS8075	DWDM	70	96	94	

IV YEAR

ODD SEMESTER						EVEN SEMESTER					
Sub. Code	Subject	I	II	III	IV	Sub. Code	Subject	I	II	III	IV
MG8591	Principles of management	96	76	78		OE8076	Professional Ethics in Engineering	98	96	95	
CS8792	Cryptography and network security	90	52	52		CS8080	Information retrieval techniques	92	94	74	
CS8791	cloud computing	86	90	69							
OME752	supply chain management	76	78	69							
CS8091	Bigdata analytics	80	70	50							
CS8063	Multicore Architecture and Programming	84	66	77							

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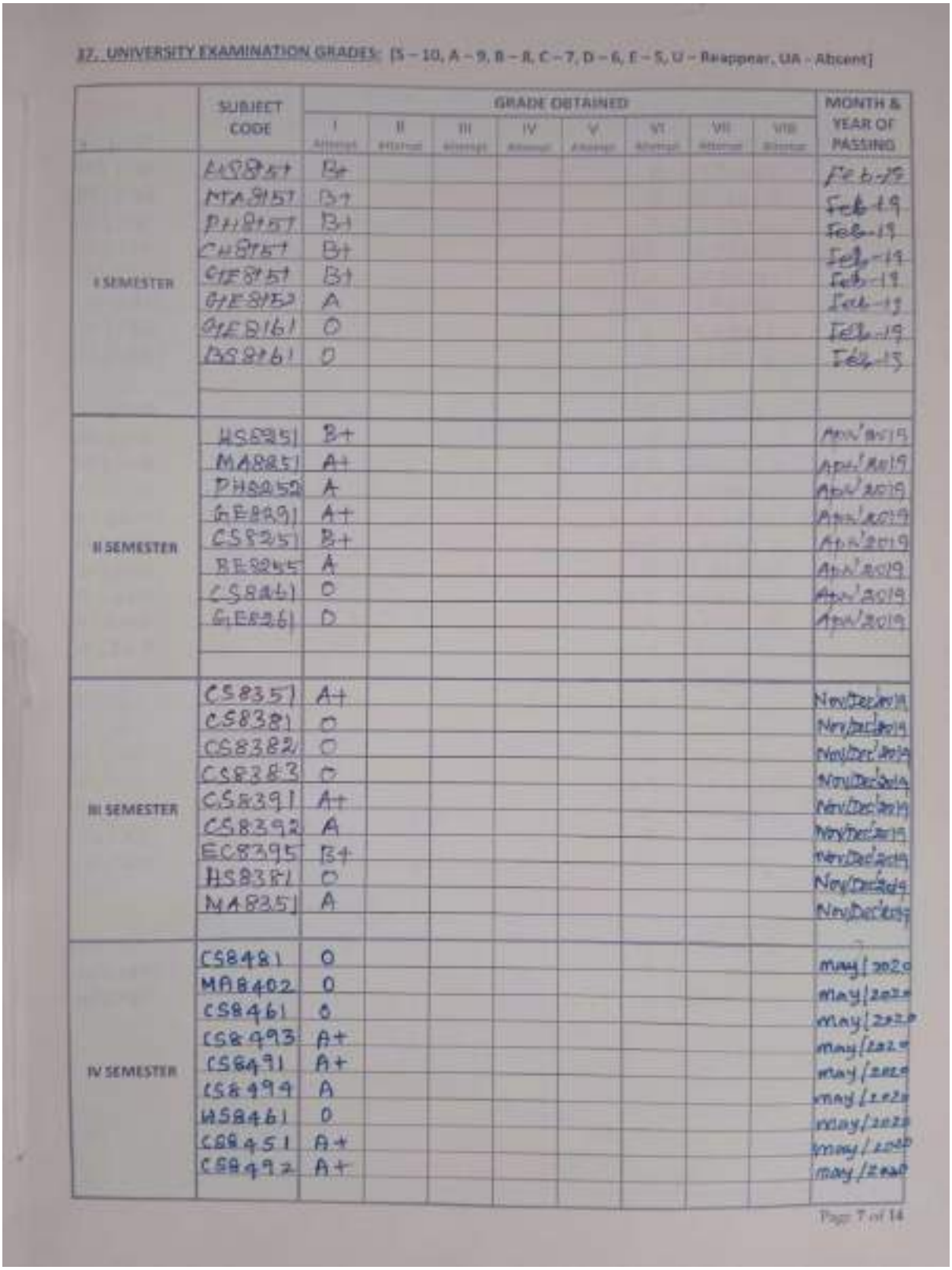


16. ATTENDANCE:

			ODD SEMESTER						EVEN SEMESTER					
			Period 1	Period 2	Period 3	Period 4	Period 5	Odd sem. %	Period 1	Period 2	Period 3	Period 4	Period 5	Even sem. %
I – Year	Date	From	03.09.18	03.09.18	17.09.18				21.1.19	13/2/19	7/3/19	29/3/19		
		To	30.09.18	16.10.18	13.11.18	10.12.18			12.2.19	6/3/19	28/3/19	3/4/19		
	No. of Periods Conducted		105	130	116	123		450/494	122	131	126	112		450/491
	No. of Periods Attended		105	123	116	106		95%	115	121	112	102		92%
II – Year	Date	From	11.07.19	01.08.19	26.08.19	21.09.19			16.12.19	15.1.20	24.2.20	16.3.20		
		To	31.07.19	23.08.19	20.09.19	19.10.19			11.1.20	8.2.20	7.3.20	27.3.20		
	No. of Periods Conducted		146	147	147	133		95.46%	112	111	132	123		93.8%
	No. of Periods Attended		146	130	147	124			101	119	130	130		
III – Year	Date	From	02.8.20	5.9.20	1.10.20				18.2.21	8.3.21	31.3.21	27.4.21		
		To	7.9.20	29.9.20	26.10.20				6.3.21	30.3.21	26.4.21	21.5.21		
	No. of Periods Conducted		133	147	146			97%	133	146	131	131		
	No. of Periods Attended		132	145	145				135	145	120	128		98%
IV – Year	Date	From	18.8.21	14.9.21	09.10.21	08.11.21			11.3.22	4.4.22	30.4.22			
		To	13.9.21	02.10.21	05.11.21	30.11.21			1.4.22	29.4.22	24.5.22	16.6.22		
	No. of Periods Conducted		139	134	134	99		61%	98	140	140	111		61%
	No. of Periods Attended		86	70	70	63			32	88	98	89		

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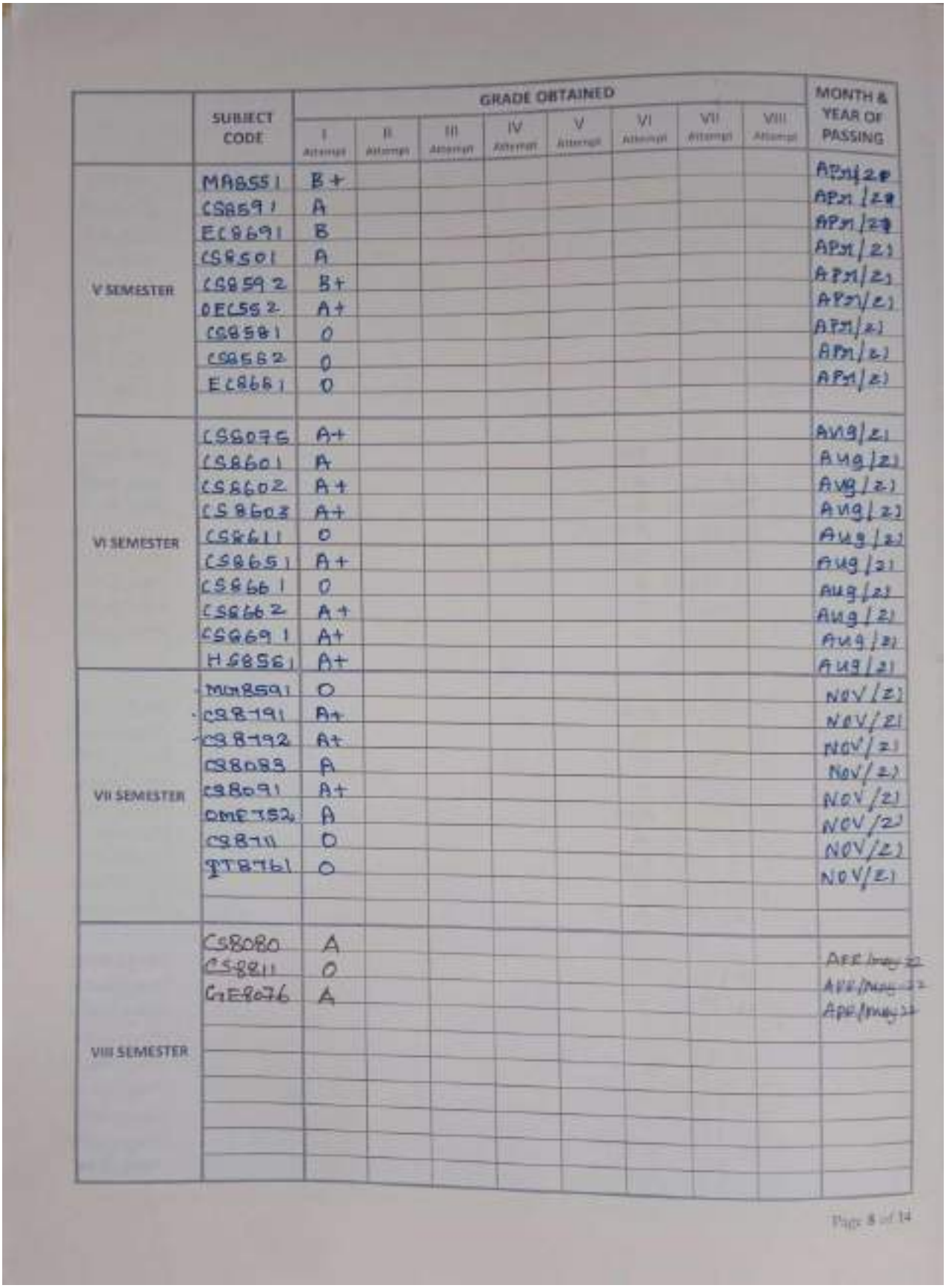
32. UNIVERSITY EXAMINATION GRADES: [S – 10, A – 9, B – 8, C – 7, D – 6, E – 5, U – Reappear, UA – Absent]

	SUBJECT CODE	GRADE OBTAINED								MONTH & YEAR OF PASSING
		I Attempt	II Attempt	III Attempt	IV Attempt	V Attempt	VI Attempt	VII Attempt	VIII Attempt	
I SEMESTER	HS8151	B+								Feb-19
	MA8151	B+								Feb-19
	PH8151	B+								Feb-19
	CH8151	B+								Feb-19
	GE8151	B+								Feb-19
	GE8152	A								Feb-19
	GE8161	O								Feb-19
	BS8161	O								Feb-19
II SEMESTER	HS8251	B+								Apr'May 19
	MA8251	A+								Apr/May 19
	PH8252	A								Apr/May 2019
	GE8291	A+								Apr/May 2019
	CS8251	B+								Apr/May 2019
	BE8255	A								Apr/May 2019
	CS8261	O								Apr/May 2019
	GE8261	D								Apr/May 2019
III SEMESTER	CS8351	A+								Nov/Dec 2019
	CS8381	O								Nov/Dec 2019
	CS8382	O								Nov/Dec 2019
	CS8383	O								Nov/Dec 2019
	CS8391	A+								Nov/Dec 2019
	CS8392	A								Nov/Dec 2019
	EC8395	B+								Nov/Dec 2019
	HS8381	O								Nov/Dec 2019
	MA8351	A								Nov/Dec 2019
IV SEMESTER	CS8481	O								May/June 2020
	MA8402	O								May/June 2020
	CS8461	O								May/June 2020
	CS8493	A+								May/June 2020
	CS8491	A+								May/June 2020
	CS8494	A								May/June 2020
	HS8461	O								May/June 2020
	CS8451	A+								May/June 2020
	CS8492	A+								May/June 2020

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	SUBJECT CODE	GRADE OBTAINED								MONTH & YEAR OF PASSING
		I Attempt	II Attempt	III Attempt	IV Attempt	V Attempt	VI Attempt	VII Attempt	VIII Attempt	
V SEMESTER	MA8551	B+								APR/20
	CS8591	A								APR/20
	EC8691	B								APR/20
	CS8501	A								APR/21
	CS8592	B+								APR/21
	OEC552	A+								APR/21
	CS8581	O								APR/21
	CS8582	O								APR/21
	EC8681	O								APR/21
VI SEMESTER	CS8075	A+								AUG/21
	CS8601	A								AUG/21
	CS8602	A+								AUG/21
	CS8603	A+								AUG/21
	CS8611	O								AUG/21
	CS8651	A+								AUG/21
	CS8661	O								AUG/21
	CS8662	A+								AUG/21
	CS8691	A+								AUG/21
	HS8561	A+								AUG/21
VII SEMESTER	MA8591	O								NOV/21
	CS8791	A+								NOV/21
	CS8792	A+								NOV/21
	CS8083	A								NOV/21
	CS8091	A+								NOV/21
	OME752	A								NOV/21
	CS8711	O								NOV/21
	PT8761	O								NOV/21
VIII SEMESTER	CS8080	A								APR/May 22
	CS8811	O								APR/May 22
	GE8076	A								APR/May 22

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38. DETAILS OF PROJECT:

1.	Title	A Secure Decentralized Cloud Storage Framework using Blockchain Technology
2.	Name of the Guide	Mr. J Ganesh
3.	Place (Internal/External)	Internal

39. CGPA:

SEMESTER	I	II	III	IV	V	VI	VII	VIII
GPA	7.64	8.33	8.75	9.25	8.08	9	9.095	9.25
CGPA	7.64	7.98	8.23	8.48	8.41	8.51	8.57	8.63

40. DETAILS OF PLACEMENT:

Name of the Company	Date of Interview	Off Campus / On Campus	Selected / Not Selected
Tata consultancy Service (TCS)	22-10-2021	off campus	Selected

41. DETAILS OF CAUTION DEPOSIT:

Caution Deposit Received	Date	
	Amount (in ₹)	

42. DETAILS OF TRANSFER CERTIFICATE:

TC Issued	Date		
	Nature	Course Completed	☐
		Transfer	☐
		Discontinued	☐
		Others, Specify	☐

A sample case study to show the efficacy of the system is given below:

Name : Parimala Renga K

Register Number : 82041710442

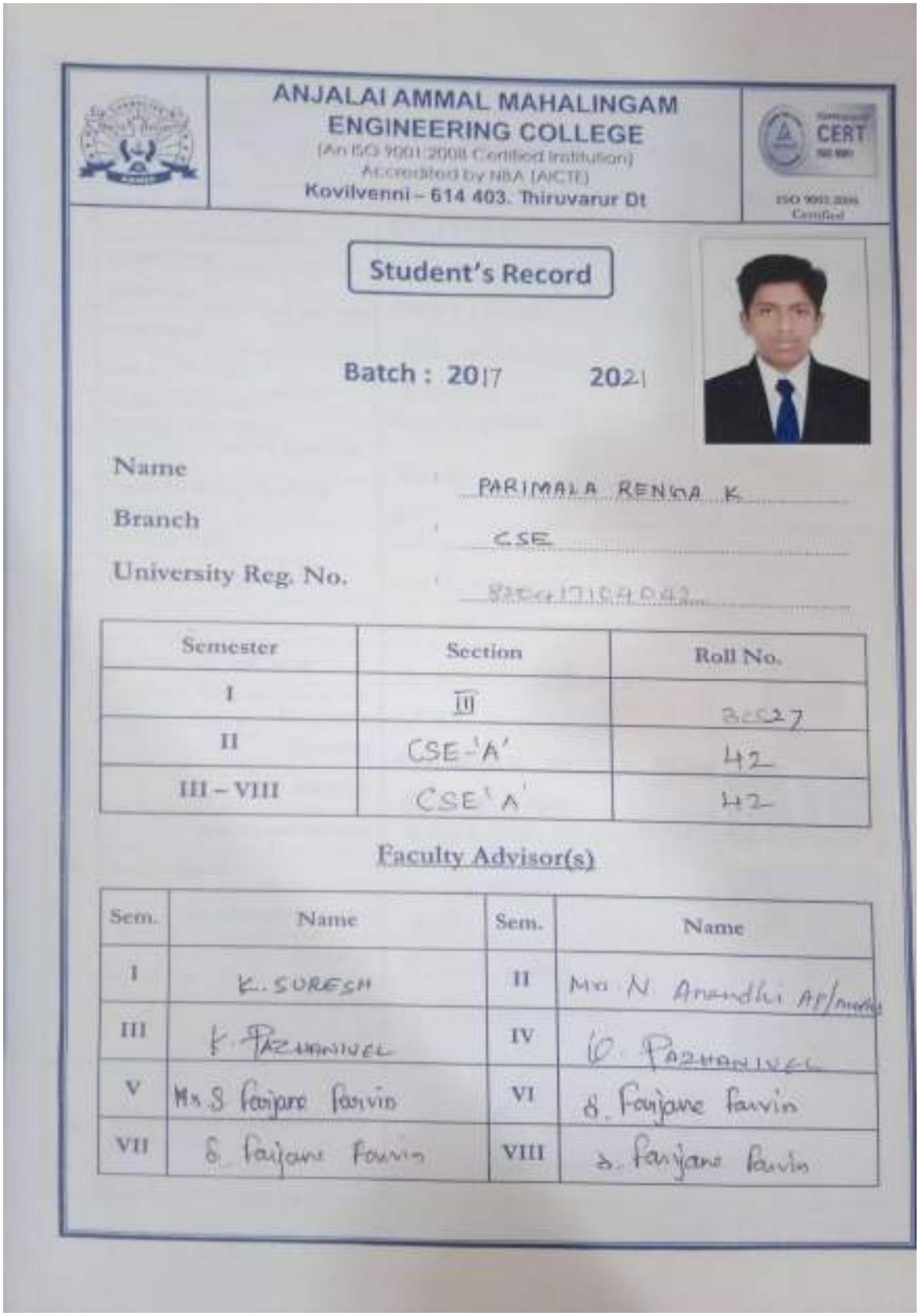
Faculty Advisor : Mrs. S. Farjana Farvin

Academic Performance :

Semester	History of Arrears
I	3
II	5
III	5
IV	6
V	5
VI	Nil
VII	Nil
VIII	Nil

Student gradually improved his performance and got placed in **MAXVY Technologies Pvt. Ltd.**, as **Trainee Engineer**

Counselling Record



ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE
(An ISO 9001:2008 Certified Institution)
Accredited by NBA (AICTE)
Kovilvenni – 614 403. Thiruvarur Dt

CERT
ISO 9001:2008 Certified

Student's Record

Batch : 2017 2021

Name PARIMALA RENGA K

Branch CSE

University Reg. No. 8[illegible]0[illegible]42

Semester	Section	Roll No.
I	III	8C527
II	CSE-'A'	42
III – VIII	CSE 'A'	42

Faculty Advisor(s)

Sem.	Name	Sem.	Name
I	K. SURESH	II	Mrs N. Anandhi AP/[illegible]
III	K. PAZHANIVEL	IV	K. PAZHANIVEL
V	Mrs S Farjana Parvin	VI	S. Farjana Parvin
VII	S. Farjana Parvin	VIII	S. Farjana Parvin

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PERSONAL DETAILS:

1.	Name of the Student	K. PARIMALA RENUKA
2.	Date of Birth	15/02/2000
3.	email id of the Student	rengaseda@gmail.com
4.	Student's Bank Account No (INDIAN BANK)	
5.	Aadhaar No.	3467 7945 4429
6.	Blood Group	A1B +VE
7.	Date of Admission	5/6/17
8.	Name of the School / Institution last studied	NEELAN MATRIC HR SEC SCHOOL
9.	Percentage of Marks in Qualifying Examination	74.4%
10.	Aggregate Marks in Qualifying Examination	893
11.	Stream of Study	Academic ☑ / Vocational ☐
12.	Medium of Instruction	Tamil ☐ / English ☑ / Others ☐
13.	Quota	Govt. Quota ☐ / Management Quota ☑
14.	Father's / Guardian's Name	G. KALIYAPERUMAL
	Father's / Guardian's Educational Qualification	ITI
	Occupation	COLLECTOR OFFICE DRIVER
	Mobile No.	9976602330
	Land line with STD Code	9384310335, 9626401298
15.	Mother's Name	K. RENUKA
	Educational Qualification	10th
	Occupation	HOUSE WIFE
	Mobile No.	868 388 7800
	Land line with STD Code	
16.	Address for Communication (with Pin code)	S/O G. KALIYAPERUMAL NO 14th MIDDLE STREET OLD NEEDAMANGALAM 614404





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Employment Offer Letter

November 08, 2021
Bangalore

Dear Parimala Renga K:

On behalf of the Company, **MAXVY Technologies Pvt. Ltd.**, I am pleased to extend this offer of employment to you for the position of **Trainee Engineer** reporting to **Karuppasamy** Executive Director of **MAXVY**. In this position, you initial primary responsibility will include, but not limited to, design and development of Embedded Products. This letter is to formally describe the terms of your employment with the Company. If you accept this offer by signing and returning a copy to us, you will begin employment on the date you specify below but not later than four weeks after you have returned this signed letter.

The terms of this offer cover specific components: relocation expenses and general terms of employment. Compensation, employment benefits,

1. Emoluments & Perquisites

You will receive a Total Annual CTC refer the **Annexure A** as earned, in accordance with the Company's normal payroll policies. You have been provided a complete break up of your salary upon request or when you join the company.

2. Employment Benefits

You will also be eligible for benefits provided by the Company from time to time for its permanent employees generally as per Company Policy. Company benefits and policies are reviewed periodically and may be amended from time to time.

3. Salary revision

Your salary will be periodically revised as per the policy of the company or at such other time as the Management may decide. Salary revisions are discretionary and will be subject to, and on the basis of effective performance and results during the period.

4. Posting & Transfer

Your initial posting will be at "**Bangalore**". However, your services are liable to be transferred, at the sole discretion of Management, in such other capacity as the company may determine, to any department / section, location, associate, sister concern or subsidiary, client, at any place in India or abroad, whether existing today or which may come up in future. In such a case, you will be governed by the terms and conditions of the service applicable at the new placement location.

5. Probation

As per the company policy, you will be on probation for a period of **six months.** The period of probation can be extended at the discretion of the Management and you will continue to be on probation till an order of confirmation has been issued in writing.

6. Working Hours

The working days of the Company are 6 days a week (Monday to Saturday) between 9.00 AM to 6.00 PM. The timings may be extended depending on the workload.

7. Full Time Employment

Your position is a full time employment with the Company and you shall devote yourself exclusively to the business and interests of the company. You will not take up any other work for remuneration (part time or otherwise) or work in an advisory capacity, or be interested directly or indirectly (except as shareholder / debenture holder), in any other trade or business during your employment with the company, without permission in writing of the Board of Directors of the Company. You will also not seek membership of any local or public bodies without first obtaining specific permission from the Management.

8. Leave

You are entitled to 12 days of leave per year. 6 days of privileged leave and 6 days of sick leave per year. Further details are available in the Employee Handbook that will be provided to you upon your joining **MAXVY**. Management reserves the right to change/review this policy/benefit from time to time. Any such changes will be communicated to all employees at **MAXVY**.

If you are taken unauthorized leaves or lack of communication during your absence in services for more than 3 days cumulatively in a month, you will be liable to terminate from services without any notice.

9. Responsibilities & Duties

Your work in the organization will be subject to the rules and regulations of the organization as laid down in relation to conduct, discipline and other matters. You will always be alive to responsibilities and duties attached to your office and conduct yourself accordingly. You must effectively perform to ensure results.

10. Past Records

If any declaration given, or information furnished by you, to the company proves to be false, or if you are found to have wilfully suppressed any material information, in such cases, you will be liable to removal from services without any notice.

11. Termination of employment

During the probationary period, your services may be terminated on either side by giving 1 months' notice or salary in lieu thereof. After complete your probationary period, your services may be terminated on either side by giving 3 months' notice or salary in lieu thereof.

Upon termination of employment, you will immediately hand over to the Company all correspondence, specifications, formulae, books, documents, market data, cost data, drawings, affects or records belonging to the Company or relating to its business and shall not retain or make copies of these items. Upon termination of employment, you will also return all company property, which may be in your possession.

In case you leave the organization within four year of joining the expenses incurred by the company on your joining and on you training would have to be reimbursed by you. This would include the following costs incurred;

a) Protocol Training program worth of 1 Lakh Rupees.

b) Sponsorship Training Programs, if any

In addition, you will have to pay back MAXVY as compensation Rs. 300000 (Three Lakh only) within seven days of notice from you or day of relieving, whichever happens earlier.

As a condition to employment, you agree to execute the Company's standard Proprietary Rights and Confidentiality Agreement. This offer and the proposed terms of your employment will be considered Confidential Information under that Agreement.

Sincerely,

For **MAXVY** Technologies Pvt. Ltd.

Karuppasamy Subbiah
Executive Director

Read, Understood and Agreed:

Employee's Signature

First Date of My Employment:

Annexure-A

Name : **Parimala Renga K**

Start Date : **08-Nov-2021**

1st Year	INR 300000 Per Annum	Graduate Engineer Trainee (GET)
2nd Year	INR 360000 Per Annum	Engineer I
3rd Year	INR 432000 Per Annum	Engineer I
4th Year	INR 516000 Per Annum	Engineer II

Kindly sign and return the duplicate of this letter as a token of your acceptance.

Wishing you the best.

Cheers!

For MAXVY Technologies Pvt Ltd

Karuppasamy Subbiah

Executive Director

9.2 Feedback analysis and reward/corrective measures taken, if any (10)

Feedback from students

Feedback is collected from students every semester for all the courses and suggestions are taken into consideration for further development. All the students participate in this process. This feedback is used as an index to evaluate the Teaching learning process. Feedback from consist of questions directly related to the teacher's knowledge, subject command, language fluency, presentation, teaching methodologies, etc. The feedback is collected either through online (Google forms) / offline (Printed Proforma)

The indices used for measuring teaching and learning through Student Feedback are as shown in the sample form. The grading for each index is available in a four point scale .and a consolidated performance index is obtained for each course handled by a faculty. If needed, the faculty is counseled by senior faculty/ HOD to improve the performance based on the index calculated.

This Feedback report helps the HODs to analyze the drawbacks in the faculty where he/she cannot meet the students‟ requirement/need in the subject and based on it remedial measures will be taken then and there. Faculty also will be advised how to overcome that flaw.

The evaluation done, on the basis of feedback, is also taken into consideration during the process of promoting the faculty to higher grade and providing annual increment.

The questionnaire in the feedback based on UGC guidelines is given below

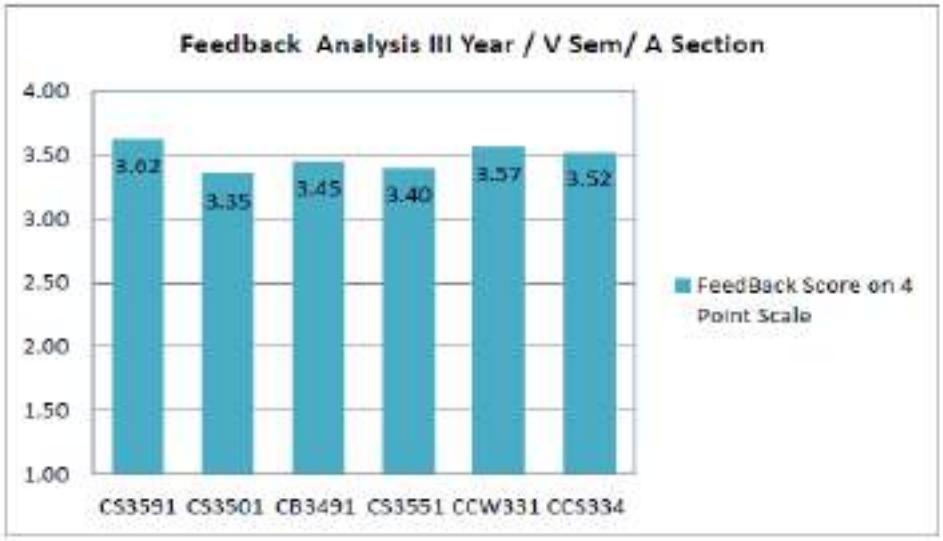
Feedback form questionnaire on 4 point Scale

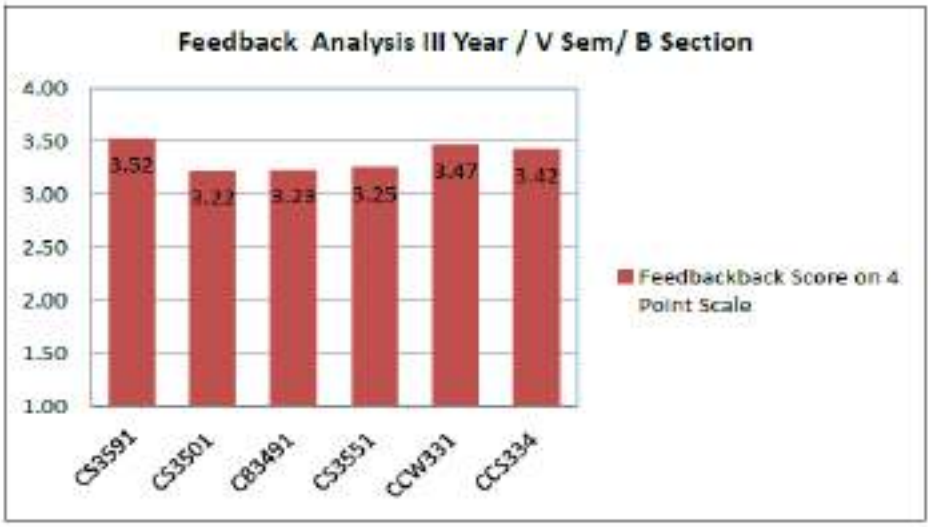
1	Is the teacher punctual to the classes?			
	Excellent	Very good	Good	Poor
2	How far is the teaching effective in terms of course content?			
	Excellent	Very good	Good	Poor
3	How effectively the teacher communicates with the students during lectures? [Audibility, Language skills, writing / drawing legibly in Board]			
	Always	Often	Rarely	Never
4	Does the teacher use different teaching aids appropriate to the content?			
	Excellent	Very good	Good	Poor
5	Pace on which the contents are covered			
	Excellent	Very good	Good	Poor
6	Does the teaching offer support for development of skills in the particular subject?{Practical training, Hands on training]			
	Always	Often	Rarely	Never
7	Does the teacher allow student to interact effectively during lecture hours?			
	Always	Often	Rarely	Never
8	Your teacher is clear and intelligible in his explanations.			
	Excellent	Very good	Good	Poor
9	Is the teacher willing to help offer help and advice to students?			
	Always	Often	Rarely	Never
10	Has the teacher covered relevant topics beyond syllabus?			
	Always	Often	Rarely	Never

Sample Feedback Analysis: Odd Semester V Sem - 2023-24

Subject Code	Subject Name
CS3591*	Computer Networks
CS3501 *	Compiler Design
CB3491	Cryptography and Cyber Security
CS3551	Distributed Computing
CCW331	Business Analytics
CCS334 *	Big Data Analytics

*- Lab cum Theory

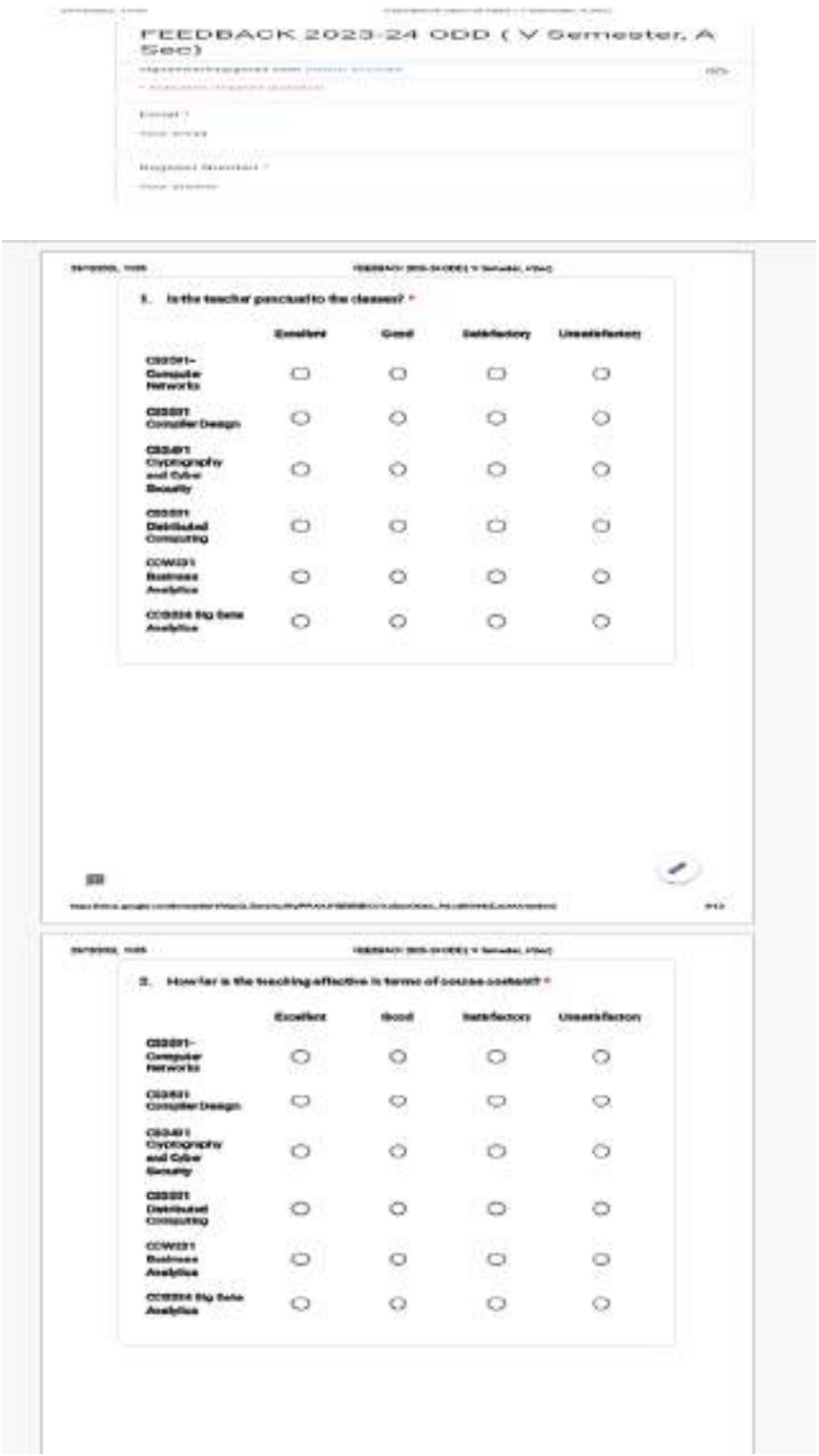




Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: **M1:** To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.

Sample Google Form



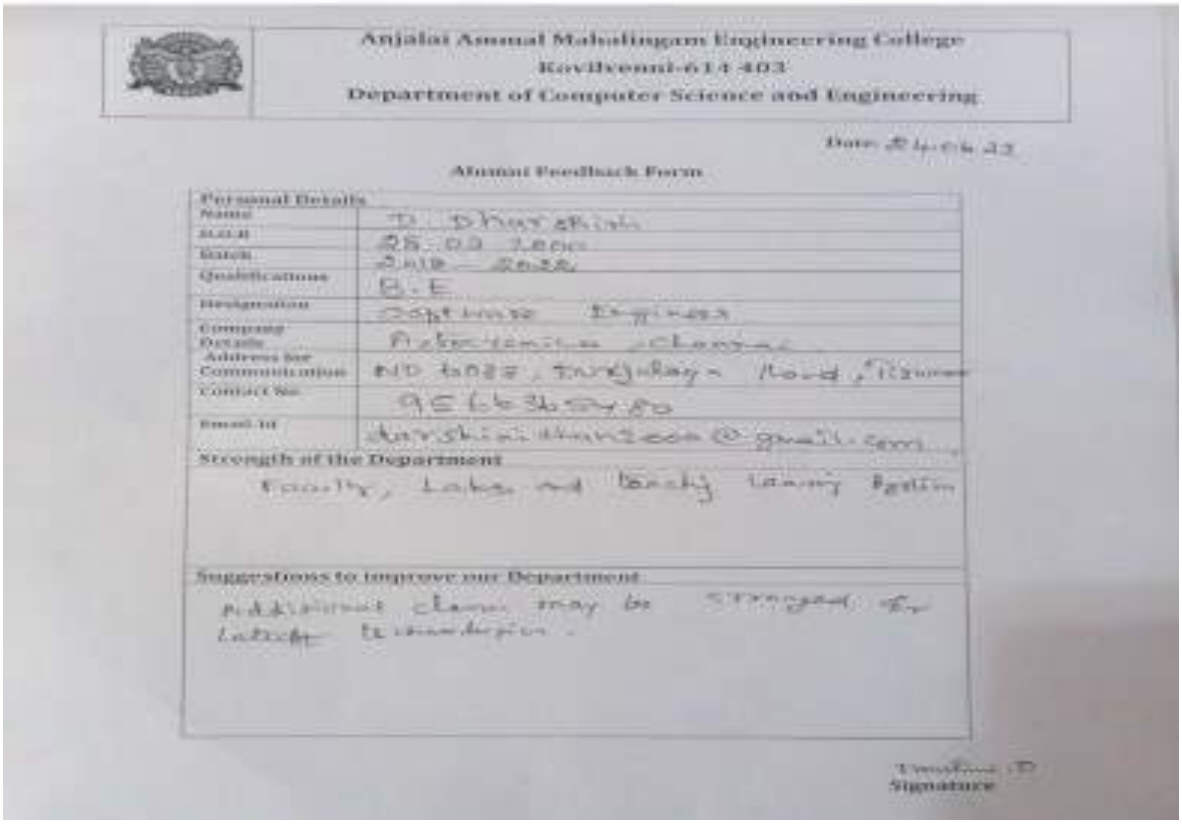
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Feedback from Alumni

Alumni feedback provides insight into areas of improvement needed and helps in filling the curriculum gap. Alumni meet is arranged every year to discuss the issues like teaching learning process, infrastructure facilities, placement facility, etc and receive suggestion to satisfy industrial needs. Based on their feedback, corrective measures are taken such as conducting guest lecture/ seminars to students in particular topic to fill industry- Institute gap, Faculty members are also encouraged to attend training programs in the areas suggested by alumni as per the industrial need. Alumni also share their practical experience among the students through invited talks.

Name: Dharshini.D Batch: 2022



Anjalai Ammal Mahalingam Engineering College
Kovilvenni-614 403
Department of Computer Science and Engineering

Alumni Feedback Form

Personal Details

Name	D. Dharshini
DOB	25.03.2000
Batch	2018 - 2022
Qualifications	B.E
Designation	Software Engineer
Company Details	Robert Bosch, Chennai
Address for Communication	NO 1022, Thirukkaya - Road, Tiruvarur
Contact No	9566367970
Email-id	dharshinidharmaraj@gmail.com

Strength of the Department

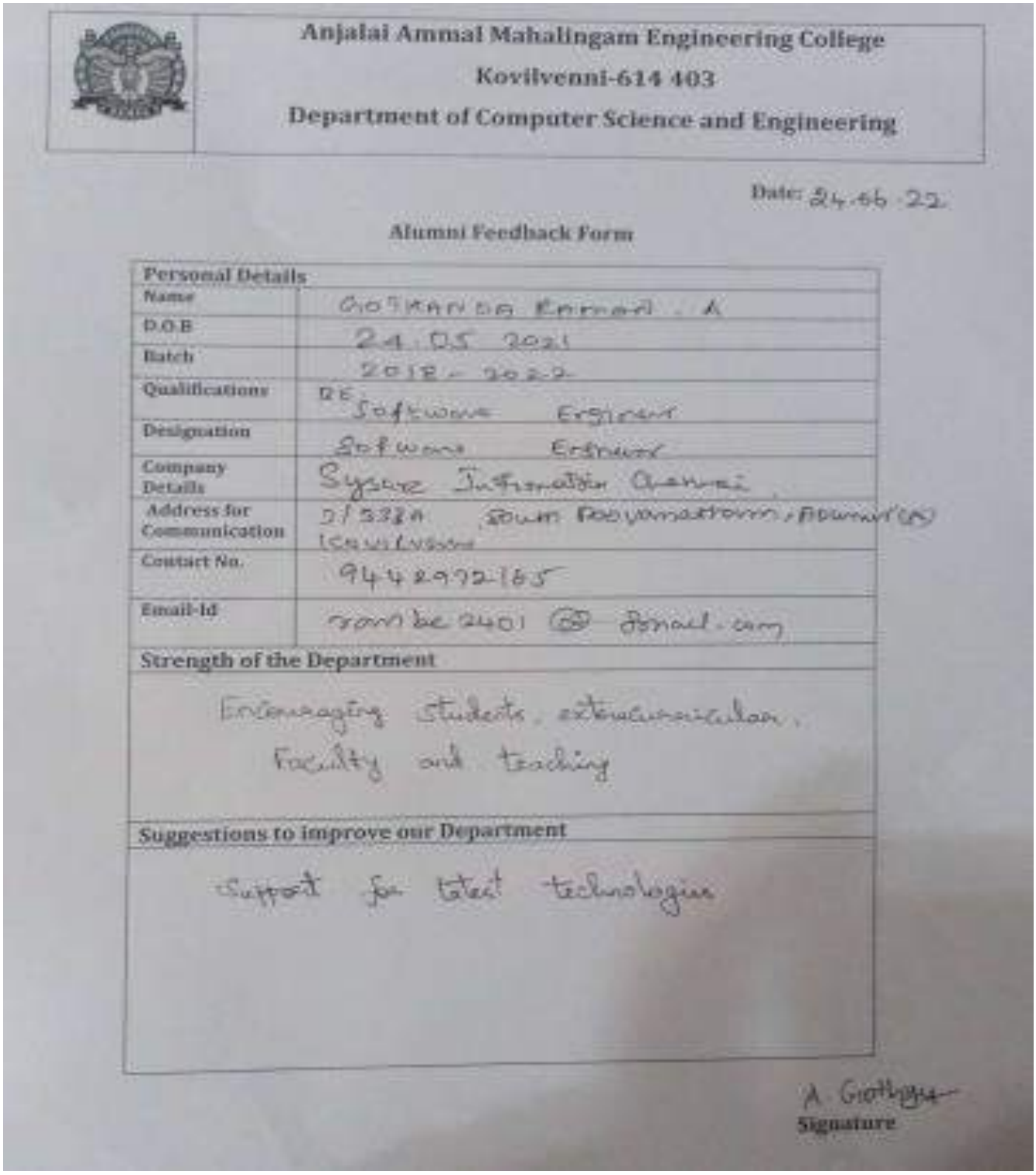
Faculty, Labs and lovely learning Pattern

Suggestions to improve our Department

Additional class may be arranged for Lateral Entry students.

Signature

Batch :2022A.GothandaRaman



Anjalai Ammal Mahalingam Engineering College
Kovilvenni-614 403
Department of Computer Science and Engineering

Date: 24.06.22

Alumni Feedback Form

Personal Details	
Name	GOTHANDA Ramanujam A
D.O.B	24.05.2021
Batch	2018 - 2022
Qualifications	BE Software Engineer
Designation	Software Engineer
Company Details	Sysco Information Chennai
Address for Communication	2/533A Sowmiyanarayanan, Pdumur(A) Kovilvenni
Contact No.	9442992165
Email-Id	ramkc2401@gmail.com

Strength of the Department

Encouraging students extracurricular, Faculty and teaching

Suggestions to improve our Department

Support for latest technologies

A. Gothanda
Signature

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9.3 Feedback on facilities (05)

Based on the students feedback following improvements were implemented

1. Number of buses and routes are increased for providing better commutation to the college

2. All the class rooms are converted into smart classrooms with LCD projectors and network connectivity.

3. Department library is automated for better library utilization.

4. Central library was open even during COVID period so that learning won't be interrupted.

5. Gymnasium with necessary equipment is available.

6. Working Hours is extended after normal college hours so that students can utilize the library, Sports facility, laboratories etc.

7. Internet speed is increased from 300Mbps to 500Mbps.

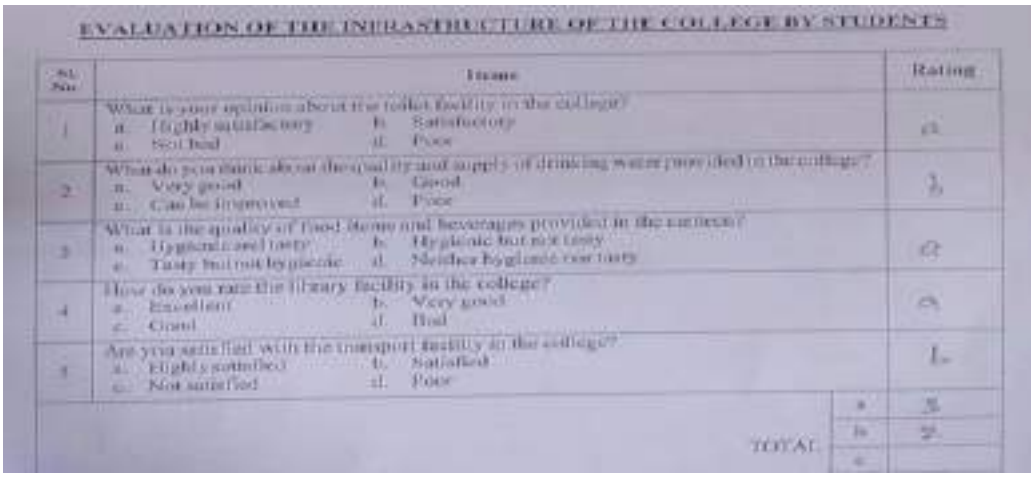
8. All the complaints raised by students regarding General Maintenance (drinking water, restrooms, etc.) is solved then and there by the concerned incharge.

9. ATM facility is available within the campus.

10. CCTV cameras installed in Canteen and adequate seating arrangement is done.

11. Recreation facility provided in Hostels.

12. A separate dispensary is functioning for the welfare of staff and students. A dedicated Consulting Physician and staff nurse is available during the working hours.



EVALUATION OF THE INFRASTRUCTURE OF THE COLLEGE BY STUDENTS

Sl. No	Items	Rating
1	What is your opinion about the toilet facility in the college? a. Highly satisfactory b. Satisfactory c. Not bad d. Poor	a
2	What do you think about the quality and supply of drinking water provided in the college? a. Very good b. Good c. Can be improved d. Poor	b
3	What is the quality of food items and beverages provided in the canteen? a. Hygienic and tasty b. Hygienic but not tasty c. Tasty but not hygienic d. Neither hygienic nor tasty	d
4	How do you rate the library facility in the college? a. Excellent b. Very good c. Good d. Bad	a
5	Are you satisfied with the transport facility in the college? a. Highly satisfied b. Satisfied c. Not satisfied d. Poor	b
	TOTAL	a b c

Figure 9.3.1 Feedback on infrastructure by students



Figure 9.3.2 Facilitation Centre

9.4 Self Learning (05)

In today's arena, particularly in Computer Science and Engineering field self-learning is very much essential to fill the gap between academic and industry needs.

The facilities available for Self-learning are

1. Internet access with a speed of 500Mbps is available in the institution which acts as gateway to acquire learning resources from various websites.
2. Laboratories with cutting edge technology to aid them in real time implementation of concepts they have learnt theoretically.
3. Central Library and Department Library with necessary number of book volumes create a thirst for knowledge apart from class room learning. Library also provides eaccess to CD ROM Repository which consists of soft copy of books and other resources to initiate self-learning among students. A question bank repository is also available for reference. DELNET facility is used by students for referring journals and provides access to books from central libraries of reputed institutions.
4. Well-equipped seminar hall, classrooms with internet access and LCD projector provides supportive self-learning environment. Students can perform group activities and discussion in a hassle free environment. Self-learning among students is encouraged by following ways and means Students are encouraged to do online certification courses through NPTEL and other learning platforms like course era, Udemy etc.

Students are encouraged to participate in various seminars, workshops and competitions conducted by reputed institutions. Students are involved in developing Mini projects as part of the curriculum and also to develop software applications for the department in-house activities. Department has a website that hosts learning materials, link to video lectures, question banks and question papers relevant to the

courses as per the curriculum. Students are involved in various association and club activities which provides introduction to new technologies and create interest among them for further learning

Table 9.4.1 Central Library Collection

l No	Document	Total No of Volumes	Total No of Titles
1	Journal BackVolumes	64	64
2	Books	44542	25025
3	BooK bank Books	1448	589
4	Journals	110	110
5	CDs	2786	2020
6	Project Reports	1327	1322
	Total	50277	29130

Table9.4.2 Central Library -DepartmentCollection

Sl No	Document	Total No of Boks	Total No of Titles
1	Books	8262	4724

Department Library:

Department library is stacked with 1091 text books and reference books to cater the needs of the faculty members and students. Question banks, previous year question papers and project reports are also available for reference.



NPTEL (National Program on Technology Enhanced Learning)

- NPTEL provides scope for self-learning beyond the syllabus and fill the gap between curriculum and industry needs.
- This will enable the students to prepare themselves for placements.
- AAMEC NPTEL local chapter became Active Local Chapter from 21-03-2019. AAMEC NPTEL local chapter have got two special awards as NPTELSTARS.
- CSE Department students have got three topper award, 2 Elite+Gold, 21 Elte_Silver, 12 Elite, 2 successfully completed, 23 Modified pass certificate as on 27-05-2022.
- CSE Department Faculty members have got three Elite Silver, 3 successfully completed, 5 Modified pass certificate as on 27-05-2022.

NPTEL: JAN-JUL 22: Students List

S.NO	Name	Course Name	Final Score	Certificate Type
1	V.Harish	Programming in Java	88	Elite+Silver
2	S.Nagendran	Programming in Java	58	Sucessfully Completed
3	K.R.Ganesh	Programming in Java	77	Elite+Silver
4	A.Abinesh	Programming in Java	88	Elite+Silver
5	T.Varsha	Programming in Java	76	Elite+Silver
6	V.Rakshanaa	Programming, Data structure and Algorithm Using Python	70	Elite
7	T.Kasthuri	Programming in Java	78	Elite+Silver
8	N.Monisha	Programming in Java	91	**Elite+Gold(Topper)**
9	T.Thirumullai	Programming in Java	87	Elite+Silver
10	A.Shwetha	Programming in Java	81	Elite+Silver
11	B.Rubavarshini	Programming in Java	79	Elite+Silver
12	S.Vinoth Kumar	Database Management System	66	Elite
13	S.Vinoth Kumar	Programming in Java	90	**Elite+Gold(Topper)**
14	S.Vinoth Kumar	Database Management System	60	Elite
15	S.Vinoth Kumar	Programming in Java	86	Elite+Silver
16	Shrivaishnavi V	The Joy of Computing using Python	78	Elite+Silver
17	S.Meenalochani	The Joy of Computing using Python	70	Elite

NPTEL: JUL22-DEC 22: Students List

S.NO	Name	Course Name	Final Score	Certificate Type
1	A.Shwetha	Introduction to Machine Learning	44	Sucessfully Completed
2	S.Vinoth Kumar	Introduction to Machine Learning(Tamil)	75	Elite+Silver
3	S.Vinoth Kumar	Introduction to Machine Learning(Tamil)	63	Elite
4	T.Thirumullai	Introduction to Machine Learning(Tamil)	66	Elite
5	V.Shrivaishnavi	Python for Data Science	63	Elite
6	A.Abinesh	Introduction to Machine Learning(Tamil)	49	Sucessfully Completed
7	V.Harish	Introduction to Machine Learning(Tamil)	65	Elite
8	K.Vijay	Data Structures and Algorithm using Java	70	Elite
9	R.Vignesh	Data Structures and Algorithm using Java	55	Sucessfully Completed
10	N.Ambalavanan	Programming in Java	78	Elite+Silver

Sample Certificates



Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

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This certificate is computer generated and can be verified by scanning the QR code given below

Roll No: NPTEL22CS47S54480860

To,
VINOTH KUMAR S

Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:3

Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

VINOTH KUMAR S

for successfully completing the course

Programming in Java

with a consolidated score of 90 %

Online Assignments	25/25	Programming Exam	25/25	Proctored Exam	39.67/50

Total number of candidates certified in this course: 4814

Prof. Jayanta Mukhopadhyay
Dean (Infotech)
IIT Kharagpur

Jan-Apr 2022
(12 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

ABINESH A

for successfully completing the course

The Joy of Computing using Python

with a consolidated score of 91 %

Online Assignments	24.94/25	Proctored Exam	65.82/75

Total number of candidates certified in this course: 10672

Prof. Devendra Jalihal
Organizer
Centre for Outreach and Digital Education (CFIL)

Jan-Apr 2023
(12 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam

To validate the certificate

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

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9.5. Career Guidance, Training, Placement (10)

The Training and Placement Cell provides employment opportunities to the graduating students through on campus and off campus placement drives. The recruitment process normally begins at the end of the sixth semester and continues till eighth semesters and beyond. Students are placed in reputed multinational companies and offered high salary package.

Availability of career guidance facility

The Training and Placement cell is a fundamental interface between industry and institute by providing a platform for the companies to employ the right talented students and at the same time providing opportunity to the students, a kick start to their dream career.

The Training and placement cell is headed by its training and placement Officer Prof. Dr. G.Nanthakumar, who has vast experience in academics.

The Training and placement cell is the nodal point of contact for both companies seeking to establish a fruitful relationship with our institution and for conducting training programs

The Cell handles all aspects of placement drives, right from contacting various companies to managing all logistics of arranging pre-placement talks, online tests, group discussions and conducting final interviews.

The Training and placement cell also organizes various career guidance workshops, training programs like career opportunities in IT sector, core branch jobs, civil services, defence services etc. Students are also motivated for pursuing higher studies as well.

Management of placement and training cell

Table 9.5.1 Members of the Training and Placement Cell

Sl No	Name	Designation	Dept
1	DrG.Nanthakumar M.E Ph.D	Training and Placement officer	Professor/CSE
2	Mr.V.Rajakani M.E	Placement Member	Assistant Professor/ECE
3	Dr.K.Palanivel M.E	Placement Member	Assistant Professor/CSE
4	Mr.B.Venkatesh M.E	Placement Member	Assistant Professor-/IT
5	Mr.S.Thiruvengadam	Placement Member	Assistant Professor/MCA
6	Mrs.K.TamilselviM.Tech	Placement Member	AssistantProfessor/Chemical
7	Mr.S.Ravi M.E	Placement Member	AssistantProfessor/Mechanical
8	Mr.R.Udayanan	Placement Member	Assistant Professor/EEE
9	Mr.B.BalachandranM.Tech	Placement Member	Assistant Professor-/Civil

Facilities of Training and Placement cell

The Training and Placement cell has Meeting Room, HR Cabins, Waiting Hall, Conference Hall and required materials for the placement drives.

The Training and Placement cell activities

- The Training and placement cell will orient final year students on core company opportunities and preparations required for placements (Arrangement for Personality development program, Communication skills, Group discussion practice, Mock interview session, Industry Internship programs).
- The Training and placement cell will Invite companies for students placements and internships

- Placements for all the students are planned at regular intervals

. • Industry collaboration activities are formalized with companies.

- Mock interviews are conducted for the students often to analyze their strength and Weakness (Online test, Technical & HR interviews).

- The cell provides complete support to the visiting companies at every stage of placement process.
- The placement cell provides soft skills and aptitude development sessions for all the students.
- Training and Placement Cell provides training on programming languages for the students
- Training and Placement Cell is arranging training on latest technologies for the students
- Training and Placement Cell is arranging various Guest lectures for the students
- The placement cell provides skill based training for the students
- MoUs has been signed with industries for providing Internship for the students

Counselling for higher studies

- AAMEC has been witnessing its alumni pursuing higher studies from renowned universities which require the students to qualify and meet certain criteria.
- Guidance and motivation is provided for the students by respective student counsellors and counselling experts.
- AAMEC provides resources to students to prepare for the entrance exams conducted for higher studies.
- AAMEC encourages the students on career prospects which enable them to choose the right career option.
- AAMEC regularly organizes career guidance programs from different organizations, to guide the students in the admission procedure for higher studies.
- AAMEC Training and Placement Cell has arranged GATE exam awareness program periodically to the final year students.

- AAMEC Training and Placement Cell has arranged Awareness on GRE & TOEFL Tests and Study in Abroad
- TANCET examination related training programs have been arranged for the UG students

Table 9.5.2: List of programs conducted for career guidance

Sl No	Date/Month	Event	Resource Person /Company
1.	07.03.2020	Awareness on GRE & TOEFL Tests & Study in Abroad	M/s Campus Dreamz Chennai
2.	25.01.2020	AI, Big Data and latest technologies	M/s NavillSoftware,Thanjavur
3.	15.02.2021 to 17.02.2021	Training program on programming languages (C, C++)	Mrs.S.FarjanaFarwin AP/CSE,AAMEC
4.	07.05.22&12.5.2022	Opportunities and Scope for Higher studies	Dr. T. Vigneswari , Associate Professor, Dept of CSE
5.	Jan 22 to June 22	Future Leadership program	M/s Bosan Lab ,USA
6.	Aug22 to Dec 22	Naalyathiran Program	M/s IBM Bangalore
7.	22.09.22	Naan Mudhalvan –Massive upskilling Program	M/s TNDC .Chennai
8.	28.04.22	How to become a successful entrepreneur	Mr.Muthukumar ,Chennai
9.	16.09.22	M/s Our Shoulders Foundation	Grow with Google
10.	04.03.23	TCS Youth Employment Program	M/s TCS,Chennai
11.	20.03.23	Online Software Testing Course	M/s Edibridgeindia ,Chennai

Pre-placement training

Placement training for students is organized from semester one onwards to make students industry ready. The training comprises of aptitude, soft skills, programming skills and domain specific courses.

- AAMEC, training and placement cell provides placement for all eligible students.
- Various training programs have been arranged for Final year Students appearing for campus recruitment process.

- All the Students are trained in Aptitude, Logical ,Soft skills, programming skills and domain specific courses
- Resource persons are from well known industry have given training for students.
- HR conclaves have been conducted to inculcate industry need to the students
- As a result of this intensive training, our college students are highly appreciated on the job performance by all major recruiters and these companies come back to AAMEC for recruitment.

Table 9.5.3: Training Overview at AAMEC Training and Placement Cell

Training	Non-Technical Training	Aptitude, Logical Reasoning, Verbal, Quantitative Analysis, Résumé Building etc
		Higher Education- GATE,GRE, TOFEL etc
	Technical Training	C,C++, Java, Python ,Data structures concepts
		Domain specific Training from Industry Experts
	Platform Based Tests	Coding Contests
		Industry specific platform based tests
		Online assessment for soft skills
		Mock tests

List of Training Programs conducted for 2020-2021

Sl No	**Date**	**Organization**	**Programme**	**Department**
1.	11.06.2020	S.Kalidas Founder and Director vours, Chennai.	Python Programming	CSE,IT,MCA, EEE,MECH,ECE
2.	15.02.2021 to 17.02.2021	Mrs.S.FarjanaFarvin, AP/CSE, AAMEC	Training program on programming languages	CSE,IT,MCA, EEE,MECH,ECE,CHEM,CIVIL
3.	18.01.2021 to	Mrs.S.FarjanaFarvin,	Programming logic,	

	23.01.2021	AP/CSE, AAMEC	Quantitative and verbal ability	CSE,IT,MCA, EEE,MECH,E CE,CHEM,CI VIL
4.	21.12.2020 to 22.12.2020, 04.01.2021, 06.01.2021, 18.01.2021, 19.01.2021, 23.02.2021 to 26.02.2021, 02.03.2021, 04.03.2021, 05.03.2021, 08.03.2021, 09.03.2021, 11.03.2021, 12.03.2021 & 16.03.2021	Mr.N.Vijayakrishnan, AP/Maths	Aptitude Training	CSE,IT,MCA, EEE,MECH,E CE,CHEM,CI VIL
5.	18.1.2021 to 23. 1.2021	CSE/ IT/ MCA / Maths/ English/ Faculty members	Training for WIPRO Elite	CSE, MCA, EEE, ECE, IT, Mech.

The following training programs were arranged for the final year students in the academic year 2021 – 2022

S.No	Date/Month/Year	Resource Person & Organization	Programme	Department
1.	Jan 22-May 22	M/s Bosan Lab, USA	Future Leaders Program (Block chain Technologies) Online mode Entry level Associate Program	CSE.IT,ECE
2.	Jan 22-May 22	M/s Vuram Technologies chennai	Vuram Enables Uplift program Online mode	CSE,IT,ECE,EEE ,MCA
3.	Jan 22-May 22	M/s SysacrcInfomatix, Chennai	Training @AAMEC Sysarc Extension Centre	CSE,IT,ECE,EEE ,MCA
4.	28.04.22	M/s Wonderpreneurs, Chennai	How to become a successful Entrepreneurs	CSE ,IT students

5.	Feb 22 to May22	M/s TCS, Chennai	TCS YEP	Third Year students(2023 passed out)
6.	13.Nov2021	Ms Technomotiva , Chennai	Campus placement workshop 21	Final year students
7.	16.03.21 to 18.03.21	M/s Bluegenit Information Technology, Rasipuram	Industrial Training and Soft skills	Final year students

The following training programs were arranged for the final year students in the academic year 2022 – 2023(Odd Semester)

S.No	Date/Month/Year	Resource Person & Organization	Programme	Department
1	2021-2022 and 2022-2023	M/s Bosan Lab, USA	Future Leaders Program (Block chain Technologies) Online mode	CSE.IT,ECE
2	2021-2022	M/s Vuram Technologies chennai	Vuram Enables Uplift program Online mode	CSE,IT,ECE,EEE ,MCA
3	21-08-22	M/s Varenda race	Job awareness in govt. Sector	CSE,IT,ECE,EEE MECH,CHEM ,CIVIL
4	16.09.22	M/s Our Shoulders Foundation	Grow with Google	CSE,IT
5	November22	Tamil Nadu Skill Development Corporation	Naan Mudhalvan courses	II,III and Final year students
6	Aug 22 to Nov 22	M/s IBM , Bangalore	NalaiyaThiran IBM courses	CSE.IT,ECE

7	23.08.22 & 24.08.22	M/s Wonderpreneurs, Chennai	Training program on "Latest Trends in Industry"	CSE & IT
7	27.08.22	M/s Veranda Race Chennai	JOB AWARENESS IN GOVT. SECTOR	CSE,IT,ECE &EEE
8	Aug 22 to Nov 22	AAMEC Maths faculty	Aptitude classes	All the final year students
9	Aug 22 to Nov 22	AAMEC English faculty	Commutative English	All the final year students
10	22.02.23	M/s Sri Sri Rural Innovation Centre, Papanasam	Java Full Stack developer	CSE,IT,ECE
11	20.03.23	M/s Edubridgeindia , Chennai	Software Testing & Java Full stack developer job positi**on.**	CSE,IT,ECE
12	04.03.23	M/s TCS, Chennai	YEP (Youth Employment Program)	CSE,IT,ECE,EEE
13	25.04.2023	M/s Logiritha Technologies ,Chennai	Carrier opportunities in IT and non IT	CSE,IT
14	05.04.2023	Kodnest Technologies Pvt ,Bangalore	Full Stack Development	All branches
15	25.3.23	Dr. T. Vigneswari , Associate Professor, Dept of CSE	Preparation Strategy for GATE (Graduate Aptitude Test in Engineering)	III Year ECE, EEE, Civil, Chemical & Mechanical.
	Feb 23 to March 23	AAMEC Faculty- Dr.S.Kamalathiyagarajan Mr.G.Karthikeyan	Arduino IDE,IoT	CSE ,IT
		AAMEC Faculty- Dr.S.Kamalathiyagarajan Mr.G.Karthikeyan	Arduino IDE,IoT	ECE,EEE

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16		AAMEC Faculty-Mrs.K.Karthika	Data Science	CSE
		AAMEC Faculty-Mrs.S.Sudha	Data Science	IT
		AAMEC Faculty-Mr.Mathew Philip	Python Programming	CSE,IT
17	Feb 23 to March 23	AAMEC Faculty-Mr.Mathew Philip	Python Programming	ECE,EEE MECH,CHEM ,CIVIL
		AAMEC Faculty-Mr.G.Kangasabapathy	C Programming	CSE,IT
		AAMEC Faculty-Mr.G.Kangasabapathy	C Programming	ECE,EEE MECH,CHEM ,CIVIL
		AAMEC Faculty-Mrs.G.Jeyasri	Java Programming	CSE,IT
		AAMEC Faculty-Mrs.G.Jeyasri	Java Programming	ECE,EEE MECH,CHEM ,CIVIL
		AAMEC Faculty-Mr.N.Vijayakrishnan	Aptitute,Logical and Reasoning	CSE
		AAMEC Faculty-Mr.K.Sathishkumar	Aptitute,Logical and Reasoning	ECE
		AAMEC Faculty-Mrs.R.P.Sathya	Aptitute,Logical and Reasoning	IT
		AAMEC Faculty-Mr.S.Sivaramakrishnan	Aptitute,Logical and Reasoning	Mech,Chem,Civil,EEE

Naan Mudhalvan Courses-Academic Year 2022-2023(Odd Semester)

Sl No	Name of the Course	Semester	Name of the Faculty incharge
1	Building Information Modeling	5	Mr.B. Balachandran M.E, AP/ Civil
2	Design and Construction of Steel buildings	7	Mr .K. SakthiMurugan ,M.E, AP/Civil
3	High Rise Building Design	7	Ms.S.KarthikaM.Tech AP/Civil
4	Transportation Infrastructure-Airports, Metros & Seaports	5	Mr.N.Ganesan,M.E,ASP/Civil
5	Robotics simulation for Manufacturing	5	Mr.R.Manikandan M.E, AP/Mech
6	Powering IoT using Rashberry Pi or arduyno	7	Dr. S.Kamalathiyagarajan,Ph.D, AP/CSE
7	Electric Vehicle for MECH	5	Mr.Vijayarajan M.E AP/Mech
8	Machine Learning	5	Mr.K.Manikandan M.E, AP/Mech
9	Industry 4.0	7	Mr.G.Karthikeyan , M.E,AP/EEE
10	AR/VR	5	Mr.R.Ramarajesh M.E,AP/IT
11	E Vehicle for EEE	7	Mr. S.Anbhalagan M.E AP/EEE :
12	Smart Energy Grid	7	Mr.N.Sivasankar M.E, AP/EEE
13	Cloud Essentials	5	Dr.T.Vigneswari, Ph.D, ASP/ CSE
14	Cyber Security	5	Mr.C.Thiruvengadam, M.E,ASP/ECE
15	Full Stack Developer	7	Mr.B.Venkatesh AP/IT
16	Machine Learning with Application to Object recognition	5	Mr.K.KarthikBabu,M.E AP/ECE
17	Cloud Essentials	7	Dr.T.Vigneswari, Ph.D, ASP/ CSE
18	Big Data	5	Mr.R.Arunachalam,M.E,AP/ CSE
19	MS office	3	Mr.C.Thiruvengadam, M.E,ASP/ECE

Naan Mudhalvan Courses-Academic Year 2022-2023(Even Semester)

Sl No	Name of the Course	Semester	Name of the Faculty incharge
1	Robotic Process & Industrial Automation	4	Mr. G. Murugesan / ECE ,Mrs.Jayabharathi/EEE
2	Sustainable Building Design	6	Mrs. S P Akshaya/CIVIL
3	Block Chain Development	4	Mrs.P.ImmaculateRexi Jenifer/CSE
4	Digital Marketing	4	Dr.S. Arunkumar / MECH
5	Foundation for AI,ML,FS	4	Mr.N.Vijayakrishnan / MATHS
6	Network Essentials	4	Mrs.KalaivazhiVijayarahavan /IT Mrs. M. C. Jayaprasanna /IT Mrs.G.Kalaiselvi/ CSE Mr.P.Dinesh /CSE
7	Network Engineering		Mrs.J.Nithya / ECE Mrs.Ponnarasi /IT/CSE
8	Electric Vehicle Design	6	Dr.A.Vijayakumar / EEE
9	Professional Readiness for Innovation, Employment & Entrepreneurship	6	Mr.V.Rajakani / ECE Mr.P.ManikandaPrabhu /CSE Mrs.G.Jeyasri /IT Mrs. I.Subha/ECE
10	Smart & Advanced Manufacturing Design & Simulation	6	Mr.P.Muraligopal / MECH
11	Product Design Engineering & Modelling	4	Mr. Pragadheswaran /Mech
12	Electric Vehicle Charging system design	6	Mr.Udayanan.R /EEE
13	Embedded System Design - Board design & debug	6	Dr.S.Kamalathiyagarajan / EEE
14	Smart & Advanced Manufacturing - Process Simulation	6	Mr.R.Vivekanandan / CHEM

Nalayathiran Courses-Academic Year 2022-2023(Odd Semester)

Sl No	Name of the Course	Dept/Sem	Resource Person &organization
1	Professional readiness for Innovation, Employability and entrepreneurship	CSE/7	M/s IBM,Bangalore
2		IT/7	M/s IBM,Bangalore
3		ECE/7	M/s IBM,Bangalore

Final Year Naan Mudhalvan Courses-Academic Year 2023-2024(Odd Semester)

S.No.	Dept.	Semester	Title of the Course	Faculty Incharge
1	CSE	VII	Cyber Security and applications	Mr.K.Pazhanivel AP/CSE
2	IT	VII	Full Stack Development with JAVA	Mrs.R.Priya AP/IT
3	CHEM	VII	Applied ML For Health Care Industry	Mrs.J.Nandhini AP/CHEM
4	CIVIL	VII	CBSD	Mrs.T.Bhuvaneswari AP/CIVIL
5	EEE	VII	Solar PV System	Mr.G.Karthikeyan AP/EEE
6	ECE	VII	ICT Engineer -5G Network	Dr. R.Rajaganapathy AP/ECE
7	MECH	VII	Ind 4.0 and its applications in Mech	Mr.S.Ravi AP/MECH

S.No.	Dept.	Semester	Title of the Course	Faculty Incharge
1	CSE	V	IBM-Nalayathiran : Experienced Project Learning Course Awareness Program	Dr.T.Vigneswari ASP/CSE Mr.P.Manikanda Prabhu AP/CSE
2	IT	V	IBM-Nalayathiran : Experienced Project Learning Course Awareness Program	Mrs.J.SathiyaJothi AP/IT Dr.R.Rebekha AP/IT
3	CHEM	V	Employability Skills Course	Mr.A.Sethupathy AP/Chem
4	CIVIL	V	Employability Skills Course	Mrs.S.P Akshaya AP/Civil
5	EEE	V	Employability Skills Course	Mr.R.Udhayanan AP/EEE
6	ECE	V	IBM-Nalayathiran : Experienced Project Learning Course Awareness Program	Mrs.A.Surya AP/ECE Mrs.S.Kavitha AP/ECE
7	MECH	V	Employability Skills Course	Mr.A.Muthusamy AP/Mech

Third Year Naan Mudhalvan Courses-Academic Year 2023-2024(Even Semester)

S.No.	Dept.	Sem	Title of the Course	No of Students Trained	Internal Faculty Name	Training Partner Details
1	CHEM	VI	CH 3019:Solid Waste Management	21	Dr.A.Sethupathi ASP/CIVIL	L&T EduTech, Chennai
2	EEE	VI	CH 3019:Solid Waste Management	34	Mrs. G. Sarujasbenaslekha AP/EEE	L&T EduTech, Chennai
3	CIVIL	VI	CH 3019:Solid Waste Management	27	Dr.A.Sethupathi ASP/CIVIL	L&T EduTech, Chennai
4	CSE	VI	SB8015: Cyber Security	88	Mrs.K.Nithiya AP/CSE	IBM Edunet,Chennai
5	IT	VI	SB8015: Cyber Security	84	Mr.R.Ramarajesh AP/IT	IBM Edunet,Chennai
6	ECE	VI	NM1001-4G & 5G Communication Networks	61	Mr.C.Thriuvengadam ASP/ECE	CDOT ,Chennai
7	MECH	VI	SB8018:Product Design Engineering & Modeling	53	Mr.N.Iyappan AP/MECH	TANCAM,Chennai

Second Year Naan Mudhalvan Courses-Academic Year 2023-2024(Even Semester)

S.No.	Dept.	Sem	Title of the Course	Training Partner	Faculty Incharge
1	CSE	IV	Experience Based Project Learning	M/s IBM , Bangalore	Mrs.K.Kathika and Mrs.S.Farjana Farvin ,CSE
2	IT	IV	Experience Based Project Learning	M/s IBM , Bangalore	Mrs.S.Ponnarasi and Mrs.V.Sivasakthi, IT
3	CHEM	IV	Employability Skills	M/s Innate Talent ,Chennai	Mr.P.Pragadeeswaran Mech
4	CIVIL	IV	Employability Skills	M/s Innate Talent ,Chennai	Dr.S.Kamalathiyagarajan ,EEE
5	EEE	IV	Employability Skills	M/s Innate Talent ,Chennai	Dr.S.Kamalathiyagarajan ,EEE
6	ECE	IV	Experience Based Project Learning	M/s IBM , Bangalore	Dr.S.Karthikaiveni Mr.P.Mano Joel Prabhu ,ECE
7	MECH	IV	Employability Skills	M/s Innate Talent ,Chennai	Mr.P.Pragadeeswaran .Mech

Placement Process and Support

The training placement cell of AAMEC through its custom made modules not just prepares the students for the corporate world but also to their life at great.

The cell organizes workshops, training personality development, soft skills, quantitative aptitude, company-specific modules and other placement-related training every year to all the branch students

To strengthen the industry-academia interaction, a number of technical talks, seminars, and workshops are also organized by inviting industry experts on topics like Robotics, Artificial Intelligence, Machine Learning, Cyber Security, Data Analytics, life in a corporate world etc.,

AAMEC Recruitment Process

1. Prepare the students database based on their CGPA up to 6^{th} semester

2. Invite companies to visit AAMEC for recruitment process

3. If the company accepts, collect the relevant data like the minimum cut-off percentage, branches in demand, selection procedures etc.,

4. Inform the students of the requirement drive through circular signed by Principal

5. Prepare the data base of eligible candidates for the drive

6. Finalize the schedule and venue for the event in concurrence with the industry and conduct the drive.

7. Prepare the list of selected candidates.

8. Get the appointment letters / selection letters (e-mail or Hard Copy) from the company.

9. Distribute the appointment letters / intimate the students regarding selection.

10. Get the date of joining from the company and inform the students.

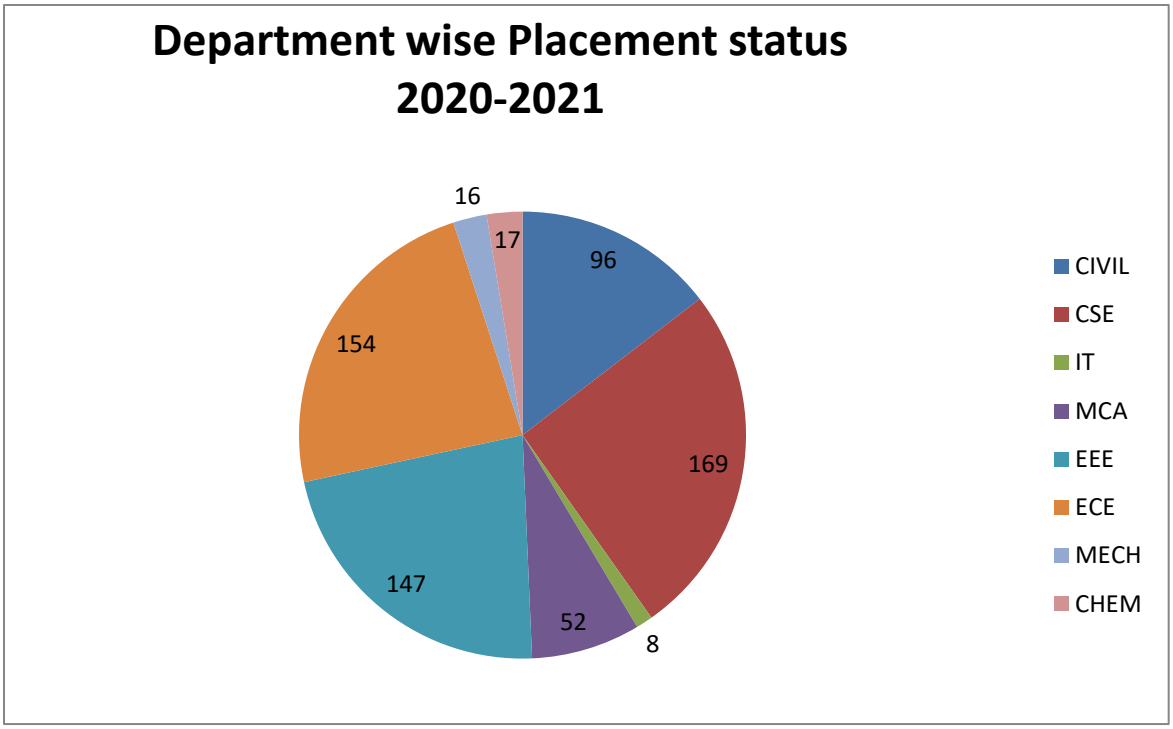
Placed Students Detail: ACADEMIC YEAR 2020-2021

S.NO	NAME OF THE COMPANY	CSE	IT	MCA	EEE	ECE	MECH	CHEM	TOTAL
1	M/S Vuram Technology Solutions,Chennai	9	5	2	2	1	-	-	19
2	M/S Qspiders,Chennai	3	5	0	4	5	1	0	18
3	M/Stecknodreams ,Bangalore	2	0	0	1	1	2	1	7
4	M/S Shree Abirami Engg Works,Chennai	-	-	-	9	-	4	7	20
5	M/Swebberax, Chennai	1	6	5	2	3	4	2	23
6	M/S Ncr Corporation ,Chennai	-	-	-	17	8	30	-	55
7	M/S Jbm Auto Systems (P), Ltd, Chennai	-	-	-	2	-	16	-	18
8	M/S Pixmonks, Thanjavur	0	2	1	0	1	0	0	4
9	M/S Elcompo Electronic Industries Pvt Limited,Chennai	-	-	-	3	7	-	-	10
10	M/S Faurecia, Chennai	-	-	-	-	-	17	-	17
11	M.Spolyhose , Cehnnai	-	-	-	-	-	-	11	11
12	M/S Schneider Chennai	-	-	-	13	-	-	-	13
13	M/Sflextronics ,Chennai	-	-	-	-	64	-	-	64
14	M.S Perfect Electronics Private Limited,Chennai	-	-	-	3	9	-	-	12
15	M/S Hakunamatta, Chennai	1	0	0	0	0	-	-	1
16	M/S Powertech Group Companies,Chennai	-	-	-	6	-	6	-	12
17	M/S Metec, Chennai	-	-	-	6	-	9	-	15
18	M/S Accenture, Chennai	0	1	0	0	0	0	0	1
19	M/S Tcs. Chennai	0	0	0	0	1	0	0	1
20	M/S Exter Premedia, Chennai	0	0	1	0	0	0	0	1
21	M/S Lutamisdatamaticsmpvt Ltd, Chennai	4	2	3	-	-	-	-	9
22	M/S Gestamp Automotive Pvtltd,Chennai	-	-	-	-	-	4	-	4

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23	M/S Ezhil Engineering Industries, Chennai	-	-	-	-	-	5	-	-
24	M/S Suresoft, Pondicherry	0	1	1	-	-	-	-	2
	Total	20	22	13	68	100	98	21	342



Placed Students Detail: ACADEMIC YEAR 2021-2022

	NAME OF THE COMPANY	CIVIL	CSE	IT	MCA	EEE	ECE	MECH	CHEM	TOTAL
1	M/s Vuram technology solutions,chennai	0	17	5	3	00	10	04	0	39
2	M/s TCS. Chennai	0	2	1	0	0	0	0	0	3
3	M/s SysarcInfomatix.Chennai	0	13	02	04	03	05	0	0	27
4	M/s Shree abiramiengg works,	0	0	0	0	9	0	5	3	17
5	M/s Webberax, chennai	0	4	8	3	3	3	2	0	23
6	M/s Qspider	0	3	0	7	2	4	2	0	18

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7	M/s Bosan Lab, USA	0	4	1	0	0	0	0	0	05
8	M/s Androzone Solutions ,Kumbakonam	0	0	0	9	0	0	0	0	09
9	M/s Navil Software, Thanjavur	0	0	0	6	0	0	0	0	06
10	M/s American Mega Trends	0	0	0	0	0	1	0	0	01
11.	M/s Rikkun Manufacturing Pvt. Ltd., Chennai	15	0	0	0	07	0	10	0	32
12	M/s Flextronics, Chennai	0	0	0	0	26	30	0	0	56
13	M/s Motherson Pvt. Ltd.	0	0	0	0	0	0	12	10	22
14	M/s SCHNEIDER ELECTRIC, CHENNAI	0	0	0	0	01	0	0	0	01
15	M/s Sirius Engineering Pvt. Ltd., Coimbatore	0	0	0	0	0	0	13	0	13
16	M/s Perfect Electronics Pvt. Ltd., Chennai	0	0	0	0	02	10	0	0	12
17	M/s Elcompo Electronics Industries Pvt. Ltd.,Chennai	0	0	0	0	13	2	0	0	15
18	M/s Lakshmi Precision Tools Limited,coimbatore	0	0	0	0	0	0	17	0	17
19	M/s Lakshmi Electrical Control Systems, Coimbatore	0	0	0	0	10	2	0	0	12
20	M/s Accqurate Engineers, Coimbatore	0	0	0	0	0	0	12	0	12
21	M/s Sakthi Auto Component Ltd, Coimbatore	0	0	0	0	07	0	19	0	26
22	M/s Aspire Systems,Chennai	0	1	1	0	0	5	0	0	07
23	M/s TVS Sundram Fasteners Ltd ,Chennai	0	0	0	0	09	0	31	0	40
24	M/s Counterplot ,Chennai	0	9	24	0	0	0	25	0	58
25	M/s Geo Adithya Technologies	23	0	0	0	0	0	0	0	23

26	M/s Spic,Tuticorin	0	0	0	0	1	0	0	2	03
27	M/s Wipro,Chennai	0	1	0	0	0	0	0	0	01
28	M/s Astrazenica,Chennai	0	3	0	0	0	0	0	0	03
29	M/sMindtree,Chennai	0	1	0	0	0	0	0	0	01
30	M/s Infosys,Chennai	0	2	0	0	0	0	0	0	02
31	M/s Zoho,Chennai	0	0	1	0	0	0	0	0	01
32	M/s IncrescoTechnologies,Bangalore	0	0	2	0	0	0	0	0	02
33	M/s Loom Solar,Chennai	0	0	0	0	12	08	0	0	20
34	Market intellect,Chennai	0	5	2	2	0	2	0	0	11
Total		38	65	47	34	105	82	152	15	538

Placed Students Detail: ACADEMIC YEAR 2022-2023

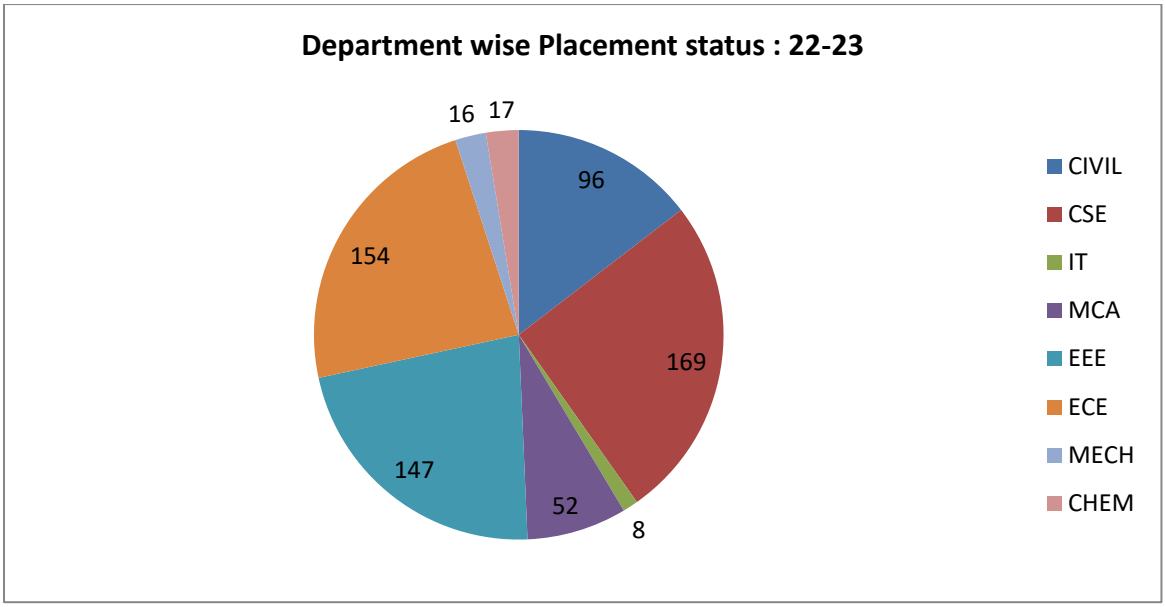
S.NO	NAME OF THE COMPANY	CSE	IT	MCA	EEE	ECE	MECH	CHEM	CIVIL	TOTAL
1	M/s TCS, Chennai	3	4	0	1	1	0	1	0	10
2	M/s Vuram Technology Solutions,Chennai	0	1	0	0	0	0	0	0	01
3	M/s Boson Labs,USA	5	1	0	0	2	0	0	0	08
4	M/s MaxvyTechnologies, Bangalore	2	1	0	1	2	0	0	0	06
5	M/s Epsilon Carbon PvtLtd,Chennai	2	0	0	0	0	0	0	0	02
6	M/s Vintorix, Chennai	3	5	3	1	0	0	0	0	12
7	M/s Shri AbiramiEngg Works, Chennai	0	0	0	12	0	0	0	0	12
8	M/s TvsSundaram Fasteners Ltd,Chennai	0	0	0	8	0	33	0	0	41
9	M/s SPIC,Tuticorin	0	0	0	0	0	01	0	0	01

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10	M/s UTSAVGIRI Computers & Electronic Industries Pvt. Ltd.,Chennai	0	0	0	8	4	0	0	0	12
11	M/s Perfect Electronics Pvt. Ltd., Chennai	0	0	0	7	1	0	0	0	8
12	M/s ELCOMPO Electronics Industries Pvt. Ltd.,Chennai	0	0	0	2	32	0	0	0	34
13	M/s Sirius Engineering Pvt. Ltd., Coimbatore	0	0	0	0	0	11	0	0	11
14	M/s Lakshmi Precision Technology Ltd., Coimbatore	0	0	0	0	0	12	0	0	12
15	M/s Lakshmi Electrical Control Systems Ltd., Coimbatore	0	0	0	7	3	0	0	0	10
16	M/s Accurate Engineers, Coimbatore	0	0	0	0	0	12	0	0	12
17	M/s SandfitFoundries,Coimbatore	0	0	0	0	0	15	0	0	15
18	M/s Qspider, Chennai	6	4	5	0	05	0	0	0	20
19	M/s HCL,Chernai	0	0	0	0	01	0	0	0	01
20	M/s Hakunamatta,Chennai	0	1	0	0	0	0	0	0	01
21	M/s Stanadyne India PvtLtd,Chennai	0	0	0	5	0	23	3	8	39
22	M/s BYD,IndiaPvtLid,Chennai	0	0	0	0	33	0	0	1	34
23	M/s Schneider Electric Chennai	0	0	0	0	0	1	3	0	4
24	M/s MDS Rebaar,Trichy	0	0	0	0	0	0	0	6	6
25	M/s UniCore Constructions India Pvt Ltd, Chennai	0	0	0	0	0	0	0	02	02
26	M/s CSG Solutions PvtLtd,Chennai	1	1	0	0	0	0	0	0	02
27	M/s Drive Management Services	14	16	0	0	5	0	0	0	35
28	M/s Vertical Solutions, Chennai	22	21	0	0	9	0	0	0	52

29	M/s ZF Groups, Chennai	4	19	0	0	0	8	1	0	32
30	M/s Sardha Motors, Kancheepuram	0	12	0	0	5	5	2	0	24
31	M/s IIFM, Chennai	0	0	0	0	0	1	0	0	1
32	M/s Alpha, Gnanm Nagar, Chennai	5	2	0	0	0	1	0	0	8
33	M/s Delphi TVS, Kancheepuram	0	0	0	0	5	1	0	0	6
34	M/s SlLumax, Chennai	13	28	0	0	31	17	6	0	95
35	M/s SonaComstar, Chengalpattu	0	26	0	0	0	13	0	0	39
36	M/s Sai Power, Trichy	1	0	0	8	0	0	0	0	9
37	M/s Sai Tech, Chennai	15	27	0	0	0	0	0	0	42
	Total placed	96	169	8	52	147	154	16	17	659



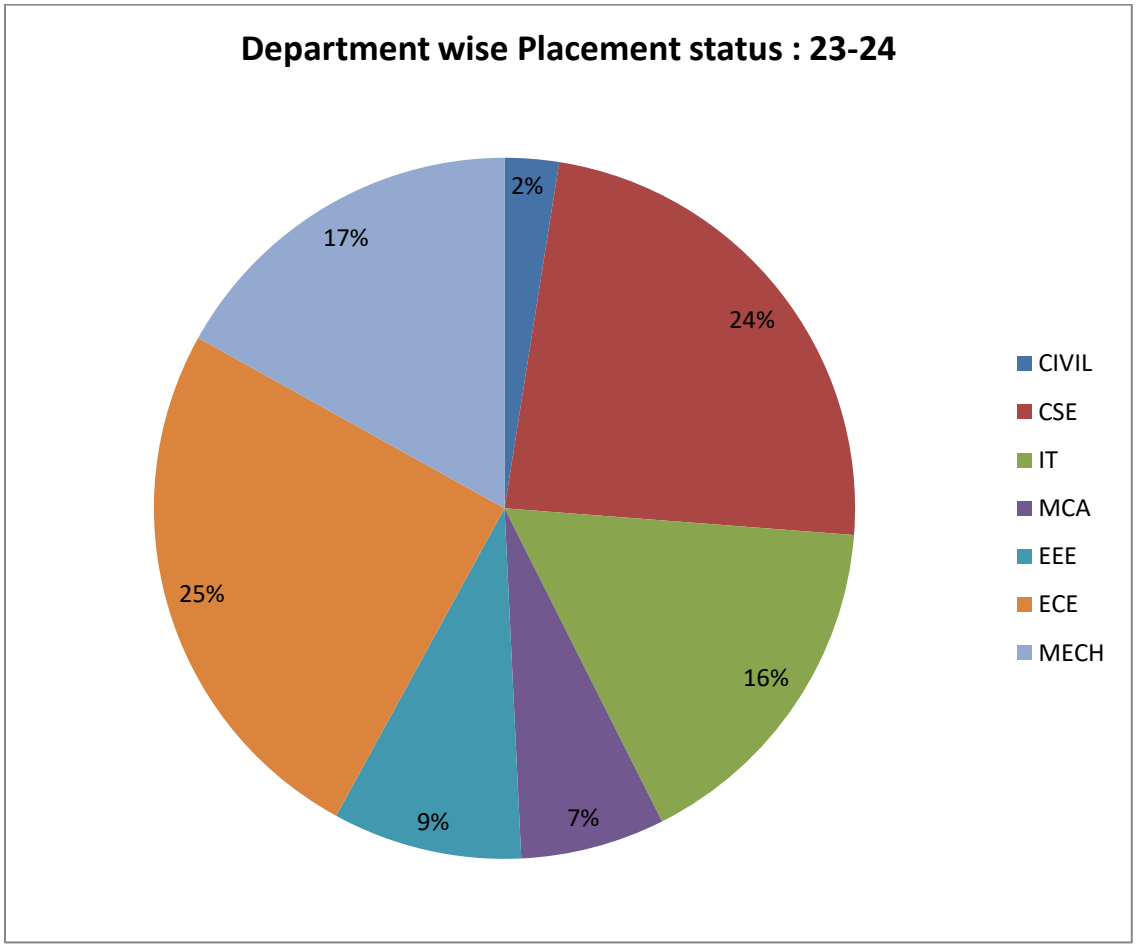
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Academic Year 2023-2024: Company wise Placed Students List

S.NO	NAME OF THE COMPANY	CIVIL	CSE	IT	MCA	EEE	ECE	MECH	TOTAL
1	M/s AGF TECNIK, Thanjavur.	9	0	0	0	0	0	0	9
2	M/s Tractors and Farm Equipment Limited, Chennai.	0	0	0	0	0	0	26	26
3	M/s SL Lumax, Chennai.	0	3	4	0	13	33	11	\64
4	M/s Logskim SolutionPrivate Limited, Chennai.	0	0	0	0	8	20	12	40
5	M/s Sri Sri Rural TalentInnovation Centre (SSRTIC), Papanasam.	0	2	2	0	0	0	0	4
6	M/S Drive Management System,Chennai	9	70	43	20	15	50	26	233
7	M/S Vertical Solutions, Chennai	0	75	39	26	16	55	24	235
8	M/s Webberax,Chennai	0	1	3	2	0	1	0	07
9	M/s IDFC Fisrst Bharat ,Mayiladurhurai	0	2	5	0	0	2	1	10
10	M/s SPIC, Tuticorin	0	0	0	0	0	0	1	01
11	M/s Qspider,Bangalore	0	15	17	0	0	8	0	40
12	M/s American Megatrends,Chennai	0	2	1	0	0	0	0	03
13	M/s TVS ,Chennai	0	0	0	0	3	4	21	28
14	M/s Logic pool ,Kumbakonam								

15	M/s Rinex Technology ,Bangalore	0	1	4	0	1	3	0	09
16	M/s Sanmina SCI India Private ltd	0	0	0	0	1	2	0	03
17	M/s GK Power Engineering,Chennai	0	0	0	0	6	3	0	09
	Total	**18**	**171**	**118**	**48**	**63**	**181**	**122**	**721**



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Training Program: Java Full Stack Developer: Class: IV CSE and IV IT

Resource Person: M/s Sri Sri Rural Talent Innovation Centre, Papanasam



Training Program: TCS Youth Employment Program conducted by M/s TCS, Chennai.



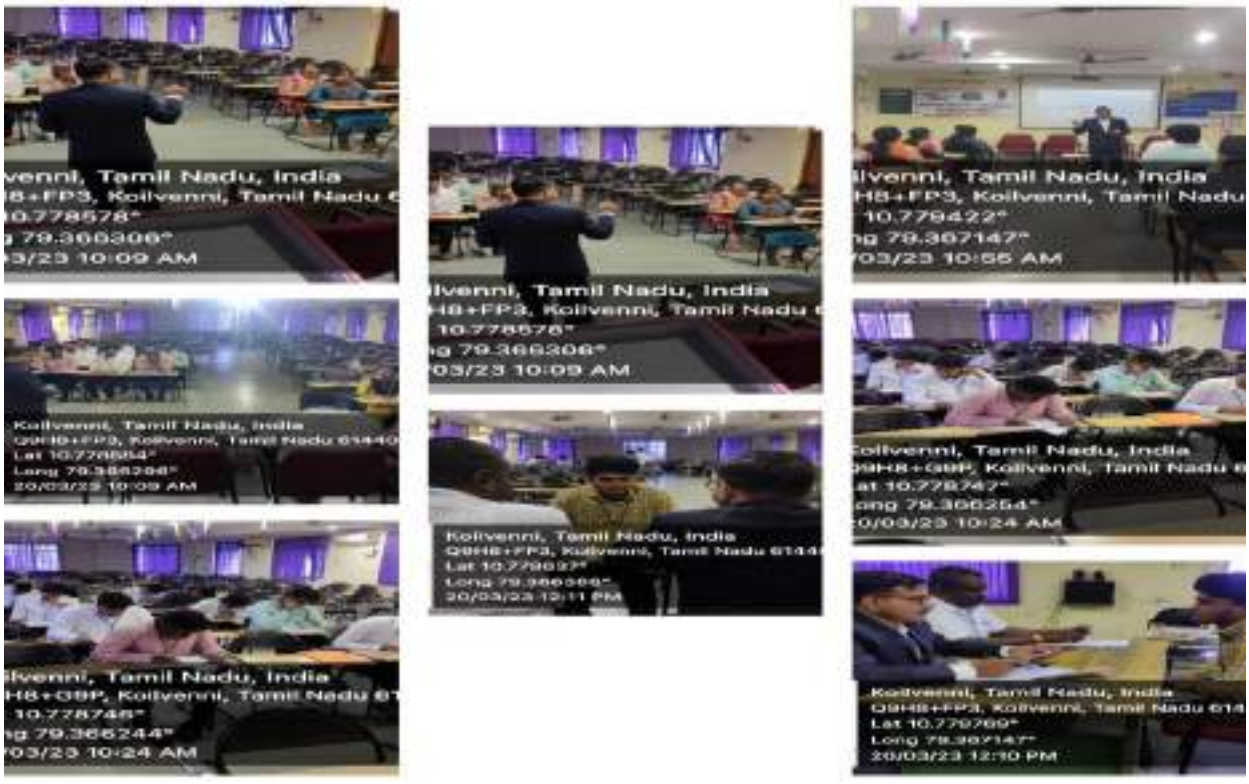
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Gate Exam Awareness Program for AAMEC pre final year students



Campus drive: by M/s MDS solutions Pvt Ltd, Trichy



M/s Fudo Jobs, Chennai: Campus Interview: Date: 25.03.23



Campus Drive: M.s Laksmi Electrical and Control Systems, Coimbatore



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Campus Drive: M/s Accurate \Engineers, Coimbatore



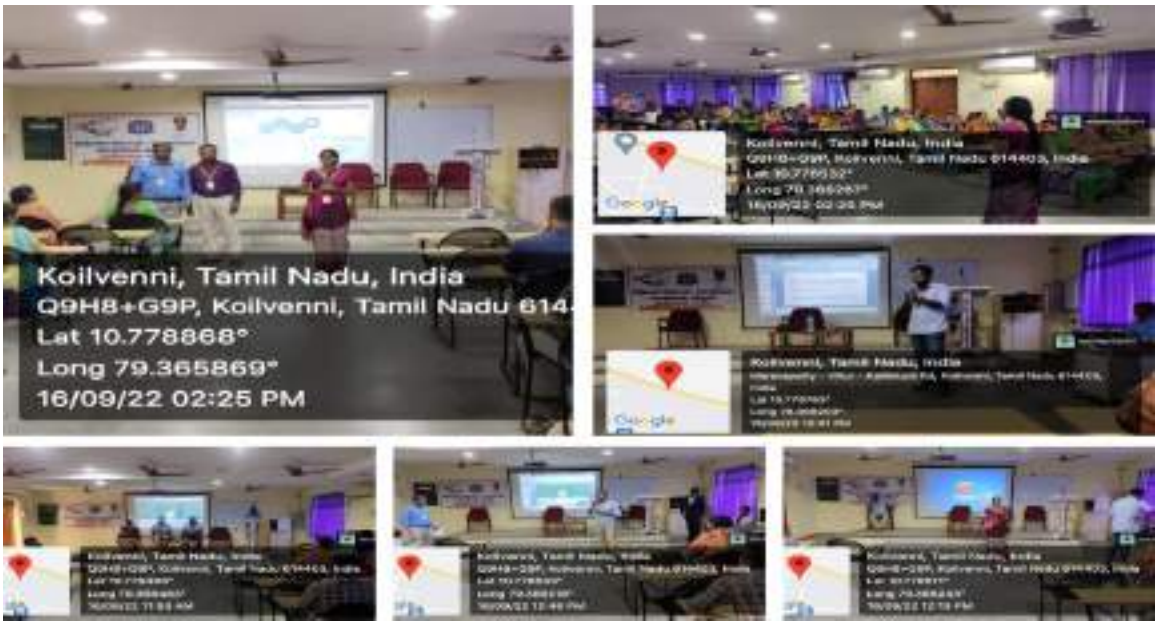
M/s Getek,Chennai Campus Drive: Date 14.02.23



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Training Program by OUR shoulder Foundation Thanjavur



Value Added Course – RPA (RoboticProcess Automation) by our Alumni through Online



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Training Program Organized 23-24

Sl No	Name of the Training program	Resource person and organization	Date	Dept
1	Life Skill Training Program	M/s Rubicon Bangalore	10.10.23 to 11.10.23	All the Final year students
2	Soft Skill Training Program	M/s Naandhi Foundation, Chennai	06.11.23 to 08.11.23	All the Final year students
3	Skills required for Job opportunities	M/s Sri Sai Rural foundation Papanasam	27.12.23	III year students
4	Carrier Guidance	M/s Carrier Cell, Chennai	06.10.23	CSE,IT students
5	TCS Youth Employment program,	Mr Sridhar & Team Chennai	09.09.23	III year all the branch students
6	Govt Job Awareness,	M/sVeranda race	09.09.23	III year all the branch students
7	Training Program on Emerging Career Opportunities in IT and Non-IT Careers: How to Find the Right One for You?	M/s S.Muthukumaran ,Chennai	04.08.23	IV CSE,IT,ECE
8	Civil Services as a Career Option	M/sShankar IAS academy,Tiruvarur	26.08.23	IV CSE,IT,ECE,EEE.MECH
9	Generative AI workshop	M/s Nxtwave Disruptive Technologies,Hyderabad	11.01.24	All second year students



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Carrier Guidance Program by M/s Carrier Cell, Chennai for CSE, IT students





TCS Youth Employment Program Mr Sridhar & Team Chennai on 09.09.23

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9.6. Entrepreneurship Development Cell (EDC) (05)

ED Cell in educational institutions to develop institutional mechanism to create entrepreneurial culture in Science &Technology academic institutions and to foster techno entrepreneurship for generation of wealth and employment by Science &Technology persons.

The EDCs are established in AAMEC, having requisite expertise and infrastructure. The mission of the EDCs is to **"develop institutional mechanism to create entrepreneurial culture in academic institutions to foster growth of innovation and entrepreneurship amongst the faculty and students".** To be the leader in enabling & facilitating entrepreneurs, support the sparks of budding entrepreneurs and manifesting the spirit and energy of young students from ideation to start-up to establishment and scaling up with integrity and sustainability through constant guidance & mentoring through various programs and schemes

OBJECTIVES:
1. To act as an institutional mechanism for providing various services including information to budding student entrepreneurs.
2. To create Entrepreneurial culture in the Parent Institution and other institutions in the region and to promote the objectives of IIC,MHRD,GOVT. OF INDIA including programmes related to women and weaker sections of the society
3. To foster better linkages between the Parent Institution, Industries and R&D institutions in the region and other related organizations engaged in promoting Small & Medium Enterprises (SMEs) including NGOs and other Voluntary Organisations
4. To catalyze and promote development of S&T based Enterprises and promote employment opportunities
5. To respond effectively to the emerging challenges and opportunities both at national and international level relating to SMEs and Micro Enterprises

The Members of Entrepreneurship Development Cell:

S. No.	Name of the Faculty	Position in ED Cell & IIC / Designation	Department
1.	**Dr. S.N.Ramaswamy**	**Convenor /Principal**	
2.	Mr.V.Rajakani	Coordinator / Assistant Professor	Electronics and Communication Engineering
3.	Mr.K.Vijayarajan	Member / Assistant Professor	Mechanical Engineering
4.	Mr.G.Karthikeyan	Member / Assistant Professor	Electrical and Electronics Engineering
5.	Mr. B. Balachandran	Member / Assistant Professor	Civil Engineering
6.	Mr. J. Sudhakar	Member / Assistant Professor	Chemical Engineering
7.	Dr. S. Kamalathiyagarajan	Member / Assistant Professor	Computer Science

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			Engineering
8.	Mrs. G. Jeyasri	Member / Assistant Professor	Information Technology
9.	Mrs. K. Sathiya Bharathi	Member / Assistant Professor	Electronics and Communication Engineering
10.	Dr.S.Kamalarani	Member / Assistant Professor /Tamil	I Year / Humanities & Sciences

The Student's Leaders of Entrepreneurship Development Cell:

S.No.	Name of the student	Register Number	Year and Department
1.	Inbaraj A	820420106303	IV Year / ECE
2.	Vanthiyath Thevan A	820420104074	IV Year / CSE
3.	Vaideeswari S	820420205068	IV Year / IT
4.	Manoj M	820420114015	IV Year / Mechanical
5.	Lognath Sundar Singh M	820420105301	IV Year / EEE
6.	Suryaprakash R	820421203303	IV Year / Chemical
7.	Hariharan K	820420103003	IV Year / Civil

The Students Registered with Entrepreneurship Development Cell:

S. No.	Department	Year			Total
		II	III	IV	
1	Electronics and Communication Engineering	16	15	22	53
2	Mechanical Engineering	18	11	11	40
3	Electrical and Electronics Engineering	10	10	08	28
4	Computer Science Engineering	16	13	10	39
5	Civil Engineering	4	3	11	18
6	Chemical Engineering	8	9	10	27
7	Information Technology	5	6	4	15
				Total	**220**

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ED Cell Activities / Program:

S. No.	Date	Details of the Activities / Program	Beneficiary
	07.02.2024	Carrier guidance Program on Mechatronics, Indusrtry 4.0, Sensor Technology, Robotics & Automations. Bajaj Engineering Skill Training Centre-SASTRA.	For all the department EDC students
	06.05.2024	Training program on LED Bulb & Tube light assembling.	For all the department EDC students
	24.01.2023	AAMEC-ED Cell & IEDP EDII Hub SASTRA jointly organized a One Day Awareness Programme on TNSI-2022 (Tamilnadu Students Innovators) competitions, EDII, Government of Tamilnadu.	For all the department final year students EDC students
	11.02.2023	AAMEC-ED Cell & IEDP EDII Hub SASTRA jointly organized a Funded One Day Awareness Program on TNSI-2022 (Tamilnadu Students Innovators) competitions, EDII, Government of Tamilnadu.	For all the department EDC students
	09.03.2023	Workshop on Business Model canvas	For all the department EDC students
	27.03.2023	AAMEC-ED Cell & IEDP EDII (Hub SASTRA) jointly organized a Funded One Day Entrepreneurship Development Program for Final year Students. Resource Persons: Mr.Ilamparithi Chandrasekaran, Business Head, Gayathri Garments,Pudukkottai. Mr.R.Mathan Senthil, Branch Manager, Indian Bank-AAMEC, Kovilvenni.	For final year EDC students
	28.03.2023	Training program on LED Bulb & Tubelight	For all the department

		assembling.	EDC students
	04.08.2023	How To Plan For Start-Up, Legal and Ethical Steps. by Mr.S.Muthukumaran, Proprietor, Logritha Technologies, Chennai.	For all the department EDC students
	12.08.2023	Installation of Automatic Sanitory-Napkin Vending machine in our college campus.	By the EDC students
	12.08.2023	On day online Awreness Programm on " Research and Entrepreneuship oppurtunities in Electronics and Communication Engineering (Innovation, Prototype & Validation)" by Mr.S.Muthukumaran, Proprietor, Logritha Technologies, Chennai.	ECE department students
	28.08.2023	Orientation Program on Electronic System Design, Manufacturing & Product Compliance, AR-VR , 3D Printing & IIOT. about course availability of SASTRA-MHI (Ministry of Heavy Industries) Training Centre.	For all the department EDC students
	05.09.2023	Teachers Day Celebration	For all the department EDC students
	07.09.2023 to 09.09.2023	AAMEC-ED Cell & Bharathidasan University jointly organized Three Days Exhibition cum sale of product of the Self-Help Group Women Entrepreneur .	For all the AAMEC students
	15.09.2023	55th Engineers Day Celebration	For all the department EDC students
	14.10.2023	Training program on LED Bulb & Tube light assembling.	For all the department EDC students
	13th September2021	Inaugural Function of ED Cell Activities 2021-22"	For all the department EDC students
	08th September 2021	Introductory Meeting of E-Cell Student Leaders	All the department's ED Cell Leaders only
	18th August 2021	"Entremania2K21" online Competition Program	All the departments

	16th August 2021	webinar on "Innovation Voucher Program"	All the departments
	01st July 2021	Online Awareness Program on Entrepreneurship	All the departments
	08th April 2021	Awareness on "Innovation & Entrepreneurship" for first year students.	All the departments
	21st December 2020	Motivational Session by Successful Entrepreneur	All the departments
	18th December 2020	Entrepreneurial Skill Development & Rural Self Employment Training	All the departments
	28th and 30th of July 2020	Design thinking and Industry 4.0	All the departments
	9th march 2020	National Science Day 2020	All the departments
	22nd January 2020	Smart India Hackathon 2020	All the departments
	25th October 2019	Demo Day – Exhibition cum Demo for Student's Innovations	All the departments

Students / Faculty Training Program:

S. No.	Date	Details of the Program	Number of Students Participated	Number of Faculties Participated
1.	28.02.2024 TO 01.03.2024	Three days Training Program on INDUSTRIAL CHEMICAL PRODUCTS (HOME CARE PRODUCTS) conducted by **Government of Tamilnadu, Entrepreneurship Development and Innovation Institute (EDII)-TN,Chennai.**	-	03
2.	27.03.2024 to 28.03.2024	Two days Training Program on HERBAL COSMETICS PRODUCTS & SKIN CARE PRODUCTS conducted by **Government of Tamilnadu, Entrepreneurship Development and Innovation Institute (EDII)-TN,Chennai.**	-	03
3.	18.04.2024	Six Months Training Program in **Bajaj Engineering Skill Training Centre-SASTRA**.	-	07
4.	20.01.2023	IP awareness / Training program under "**NIPAM** - National Intellectual Property Awareness Mission"	-	01

5.	24.03.2023 & 25.03.2023	National Conference & Exhibition on Rural Innovations @ SSM Institute of Engineering and Technology, Dindigul.	19	02
6.	30.03.2023	**"National Level Technical Symposium"** **Paper presentation / Start-Up** in University College of Engineering, BIT Campus, Anna University Trichy	-	13
7.	21.07.2023	One day orientation program by SASTRA-MHI (Ministry of Heavy Industries) Training Centre.	-	03
8.	16.09.2023	One day orientation program by SASTRA-MHI (Ministry of Heavy Industries) Training Centre.	54	01
9.	03.10.2023 to 04.10.2023	Participated in the competetion "**VILIMBIL VIVASAYAM**" @ Hindustan college of Engineering and Technology, Coimbatore .	08	-
10.	16.10.2023 to 18.10.2023	Training Program on **3D Printing & IIOT** by SASTRA-MHI (Ministry of Heavy Industries) Training Centre.	12	-
11.	23.11.2023 to 25.11.2023	Training Program on **Electronic System Design, Manufacturing & Product Compliance, AR-VR** by SASTRA-MHI (Ministry of Heavy Industries) Training Centre.	12	-

Funds:

S.No.	Funding Source	Amount	Utilization
1	IEDP EDII, Government of Tamilnadu. (27.03.2023)	**5000/-**	**TNSI-2022** Awareness program
2	IEDP EDII, Government of Tamilnadu. (15.03.2023)	**3000/-**	Entrepreneurship Development Program for Final year Students.
3	Anjalai Ammal - Mahalingam Engineering College	**37622/-**	ED Cell activities: LED Bulbs (15W-Philips Type) making & Training Programs etc.,

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Projects :

S. No.	Name of the Project	Details and Remarks
1	**Bee Venom Collector Device**.	• Research students from Horticulture College and Research Institute, Periyakulam (Theni District) have requested to designing a "Bee Venom Collector" device. As per their requirement, our college ED Cell students have designed the device successfully.
2	**Automatic Domestic - Milking Machine" Device:**	• ECE students have designed the Automatic Domestic - Milking Machine and submitted to the farmers to utilize for milking.
3	**LED Tube Light (22W) manufacturing:**	• ED Cell students have successfully completed the LED Tube Light (22W) manufacturing. • **100Nos LED Tube Lights (22W)** given to**Electrical Maintenance Team** on 21/12/2021 for **our college use**.
4	**Household Cleaning Products**	• ED Cell students had made the household cleaning products with low cost. All the products are available in EDC sales-point.

List of Entrepreneurs Entrepreneur and Intrapreneurs:

S.No.	Department	Details of the Entrepreneur and Intrapreneurs
1	Chemical Engineering	• **A. Mohammad Ismail (2020 Batch).** He had been in a chemical production field in our AAMEC's ED cell now with his experience in ED cell he got placed in **O'CLOCK** (Household Chemical Production company), **DUBAI**. He is being both the **Entrepreneur and Intrapreneur.**
2	Mechanical Engineering	• **M. Harshini (2021Batch).** She is running her own startup as Event Management called **"i made u"** in which she satisfying the customers via her customized Gifting products. • **U.Veeramani (2021 Batch).** He had designed our AAMEC EDC logo and in a turn now he is doing his Logo designing online business in the name of **"VM Designing Hub**" . • **A.Guru Prakash (2021 Batch).** He had initiated his own online business called **"Pencil Carving is my Hobby"** and he is running it successfully and also he is doing **Mushroom Cultivation and selling**.

3	Electrical and Electronics Engineering	• **N.Abitha (2021 Batch).** She had made Natural Soaps, Face-wash and Hair Oil. Now she is running her own small scale business with the brand name called **"PIRAI".**
4	Electronics and Communication Engineering	• **J.Samsanthosh Giftson** and **K.Sideshwaran.** Both are successfully running their own online Electronics goods sales business called **" Hopestone Shopping"** and **"Hopestone Gifting"**. • **M.V. Priyaasri** and **P.Keerthi (2021 Batch).** Both are successfully running their **"Home-made Glass-Gel Candles and Handcrafted items"** selling businesses through online & Offline. • **L. Gladys Saro Sujithra (2021 Batch).** She made **"Wire-Grocery Bag"** And selling through online & Offline. • **R.Keerthivasan (2022 Batch).** He is running **Milk Society** in his home town and contributing more than 300 liters of milk daily to **Aavin.** • Harish Vaishnav M,Chandraseker S,Nandhakumar M,Barathan M Natharajan K, Mukesh MCODESPECTRA , (a student initiative in E-LEARNING for skill development). • Milton Emirate Raj, MAGICAL_ENOVATION (Arts & Crafts)
5	Information Technology	Vaideeswari S , LERIQUE COLLECTIONS (Online Trade: Resin Arts & Decoratives)

Credits:

S. No.	Details	Credits
1.	**Star certification** has been awarded to "Institution Innovation Council (IIC)" at **Anjalai Ammal Mahalingam Engineering College, Tiruvarur** for undertaking the various activities prescribed by **Innovation Cell, Ministry of Education, Govt. of India** to promote Innovation and Start-up in campus during the IIC calendar year **2023.**	

	"Institution Innovation Council (IIC)" at **Anjalai Ammal Mahalingam Engineering College, Tiruvarur** for undertaking the various activities prescribed by **Innovation Cell, Ministry of Education, Govt. of India** to promote Innovation and Start-up in campus during the IIC calendar year **20-21.**	
	"Institution Innovation Council (IIC)" at **Anjalai Ammal Mahalingam Engineering College, Tiruvarur** for undertaking the various activities prescribed by **Innovation Cell, Ministry of Education, Govt. of India** to promote Innovation and Start-up in campus during the IIC calendar year 19-**20.**	
2.	<u>**NIRF** Ranking**:**</u> **"Participation in the innovation category"** has been awarded to **Anjalai Ammal Mahalingam Engineering College, Tiruvarur** for calendar year **2023.**	

SAMPLE PARTICIPATION CERTIFICATES OF FACULTIES AND STUDENTS:



PRADHAN MANTRI YUVA YOJANA
(Yuva Udyamita Vikas Abhiyan)
Ministry of Skill Development & Entrepreneurship
Government of India

Certificate of Completion

This is to certify that Dinesh Balakrishnan from Anjalai Ammal - Mahalingam Engineering College, Thanjavur has successfully completed the Entrepreneurship Course (Orientation Module) under the scheme in the year 2018.

Certificate No. PMYY/ COURSE 100/144606

Date: 20/12/2018

Director General, MESBUD

Digitally signed by ROHIT AGGARWAL



ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI - 614 403
INSTITUTION'S INNOVATION COUNCIL
ENTREPRENEURSHIP DEVELOPMENT CELL

Certificate of Appreciation

Awarded To:

Vasanthakumar. P, IV/MECH

for his/her meritorious service and participation during 21/08/2017 to 29/03/2021

in Entrepreneurship Development Cell that leads to successful undertaking

EID Cell coordinator

Principal

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FACULTY TRAINING CENTRE

GOVERNMENT COLLEGE OF TECHNOLOGY

(An Autonomous Institution affiliated to Anna University /Accredited by NAAC- A Grade)

COIMBATORE – 641 013

Certificate of Participation

This is to certify that *Mr. V. Rajakani, Assistant Professor / ECE, Anjalai Ammal Mahalingam Engineering College, Kovilvenni* has participated in Tamil Nadu State Government Sponsored Webinar on *"BANK LOAN SCHEMES FOR ENTREPRENEURS"* held on *30.04.2021* organized by the Faculty Training Centre, **Government College of Technology, Coimbatore** through Online Mode.

Coordinator
Mr. P. Duraisamy

Convener
Dr. T. Purusothaman

Principal
Dr. P. Thamarai

E - Certificate No: LSE3004526



MHRD INNOVATION CELL

DSIR

Workshop on
Funding Opportunities for Innovation and Entrepreneurship Development

Jointly Organized by
Institution's Innovation Council
UnoM, TOCIC, DSIR, Government of India
and
R.M.K. Engineering College

Certificate of Participation

This is to certify that Dr./Mr./Ms. KARTHIKEYAN GOVINDARAJ *of* ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE *has participated in the Workshop on Funding Opportunities for Innovation and Entrepreneurship Development Jointly organized by Institution's Innovation Council (IIC), UnoM, ToPP Cutreach cum Cluster Innovation Centre, DSIR, Government of India & R.M.K. Engineering College, Tamil Nadu on 09th November, 2019.*

Dr. K. Elangovan
AED, MHRD Innovation Cell

Shri. R. S. Munirathinam
Chairman- R.M.K. Group of Institutions

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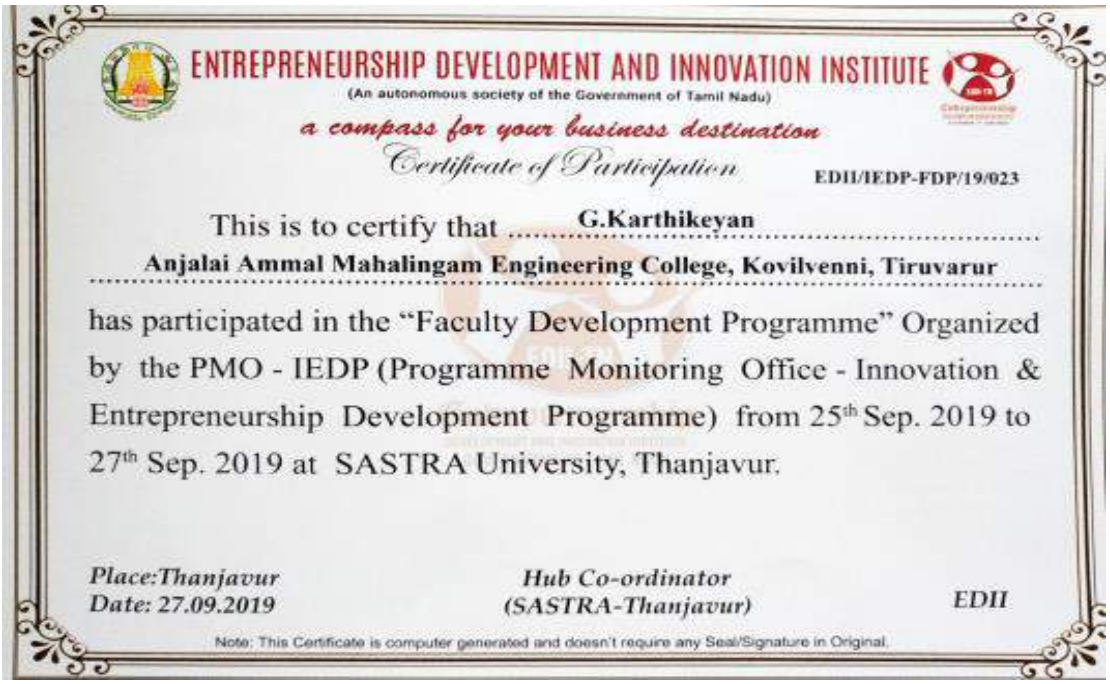
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ENTREPRENEURSHIP DEVELOPMENT AND INNOVATION INSTITUTE

(An autonomous society of the Government of Tamil Nadu)

a compass for your business destination

Certificate of Participation

EDII/IEDP-FDP/19/023

This is to certify that ..... G.Karthikeyan .....

Anjalai Ammal Mahalingam Engineering College, Kovilvenni, Tiruvarur

has participated in the "Faculty Development Programme" Organized by the PMO - IEDP (Programme Monitoring Office - Innovation & Entrepreneurship Development Programme) from 25th Sep. 2019 to 27th Sep. 2019 at SASTRA University, Thanjavur.

Place:Thanjavur
Date: 27.09.2019

Hub Co-ordinator
(SASTRA-Thanjavur)

EDII

Note: This Certificate is computer generated and doesn't require any Seal/Signature in Original.



Two Weeks

FACULTY DEVELOPMENT PROGRAM ON INNOVATION & ENTREPRENEURSHIP

25 Nov 2019 to 07 Dec 2019

Sponsored by

Entrepreneurship Development Institute of India, Ahmedabad

Under the aegis of

National Science & Technology Entrepreneurship Development Board, Department of Science & Technology Government of India

Program Implementing Agency

Innovation & Entrepreneurship Development Cell

E.G.S. PILLAY ENGINEERING COLLEGE

Certificate of Participation

This is to certify that

Prof. Rajakani V

Assistant Professor, Anjalai Ammal Mahalingam Engineering College, Kovilvenni, Thiruvarur

with Aadhar No. 470621343147

has participated in the Two Weeks

Faculty Development Program (FDP) on Innovation & Entrepreneurship

during 25.11.2019 to 07.12.2019,

sponsored by

Entrepreneurship Development Institute of India (EDII)

under the aegis of NSTEDB | DST, Govt. of India

implemented by

Innovation & Entrepreneurship Development Cell, E.G.S. Pillay Engineering College, Nagapattinam

Chief Coordinator DST NIMAT Project

Head of the Institution

Vision: To become a centre of excellence in the field of computer science and engineering through high quality education and produce intellectual computer engineers for industry and research.

Mission: M1: To provide fundamental knowledge in science, mathematics, management and environmental subjects. **M2:** To impart in-depth knowledge in core computer science and engineering theory and laboratory courses. **M3:** To train students to enhance their problem-solving and programming skills. **M4:** To expose students to emerging technologies and tools in the field of computing.





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CRITERION 10	Governance, Institutional Support and Financial Resources	120

10.1 Organization, Governance and Transparency (40)

10.1.1. State the Vision and Mission of the Institute (5)

Vision of the Institute

To become a centre of excellence by imparting high quality technical education and produce competent engineers with ethical, environmental and social values.

Mission of the Institute

M1- Facilitating high quality technical education through adequate infrastructure and eminent faculty members.

M2 - Providing Technical education to rural youth.

M3 - Promoting research and development activities.

M4- Developing industry – institution interaction and inculcating a spirit of entrepreneurship through sustained efforts.

M5 -Creating global environment awareness among the students.

10.1.2 Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies (10)

10.1.2.1 Board of Governors

Governance is the key activity that connects between the management, faculty, staff and students community. We believe the process of governing body and it should be effective and efficient in the execution of its responsibilities. Modern governance and proper administration should be carried out by the governing body. Institute has a governing body in place wherein the members are drawn from distinguished cross-sections of the society.

Table: 10.1.2.1-A Members of the Governing Council

S.No.	Name	Occupation	Address	Nomination
1.	Justice A.Ramamurthy	Managing Trustee	Former Judge, Madras High Court, Plot No 9, III Main Road, Mogappair west Garden, Chennai – 600 037	Chairman
2.	Dr. S. N. Ramaswamy	Principal	Anjalai Ammal Mahalingam Engineering College, Kovilvenni –614 403	Member Secretary
3.	Dr. D.Sridharan,	Professor, Department of Electronics & Communication Engineering	CEG Campus Anna University, Chennai -25 Phone: 9444417161 email:sridhar@annauniv.edu	Anna University
4.	Mrs. S. Sumathy	Professor, GCE, Sengipatti	GCE, Sengipatti, Thanjavur	DOTE Nominee
5.	Tmt. N.T. Selvarani	Trustee, MazdoorWelfare Trust	No, 2, Xavier Nagar, PattukkottaiRoad, Thanjavur - 613 001	Member
6.	Tmt. N. V. Devi,	Trustee, Mazdoor Welfare Trust	11A/ 27, Alamelumangapuram, 2nd Street, Mylapore	Member

			Chennai –600 004.	
7.	Thiru. N. Kanniah,	Trustee, Mazdoor Welfare Trust	193-B, Railway Colony, Egmore, Chennai-08.	Member
8.	Thiru. C. A. Raja Sridhar,	Trustee, Mazdoor Welfare Trust	No. 35, MalleswararKovil Street, Mylapore, Chennai – 600004	Member
9.	Dr. K. Gurusamy,	Prof &Former Dean School of Liberal Arts & Special Education Kalasalingam Academy of Research & Education	Anand Nagar, Krishnankovil– 626 126, Srivilliputhur (via), VirudhunagarDt.	Member
10.	Dr.B.Palani	Professor, Department of Civil & Structural Engg, Annamalai University	Annamalai Nagar, Chidambaram - 608 002 Cell : 9443782997	Member
11.	Dr.K.Krishnaraj	Chief Scientist	Council of Scientific and Industrial Research, Central Leather Research Institute, Sardar Patel Road, Adayar, Chennai – 600 020	Member
12.	Mr. S.Kalyanaraman	Chief Executive and Whole – time director, L & T valves ltd, L & T Campus	TC – 1, 2nd Floor, Mount Poonamallee Road, Manapakkam, Chennai – 89	Member
13.	Mr. K. Kumar	Director, SysArcInfomatix Private Ltd	No – 1, Defence Officer's Colony, Nandampakkam, Chennai – 600 032	Member
14.	Mr. S. Satheeshkumar	Deputy Manager (Commercial), TNSTC	Railway Station New Road, Kumbakonam – 612 001 Cell : 9443130321	Member

Table 10.1.2.1-B Members of the Board

S.No.	Name	Position	Address
1	Justice A. Ramamurthy	Managing Trustee	Former Judge, Madras High Court, Plot No 9, III Main Road, Mogappair west Garden, Chennai-37.
2	Tmt. N.T. Selvarani	Trustee	No, 2, Xavier Nagar, Pattukkottai Road, Thanjavur - 01.
3	Tmt. N. V. Devi	Trustee	11A/ 27, Alamelumangapuram 2nd Street, Mylapore, Chennai – 04.
4	Tmt. N.V. Usha	Trustee	15/8, East Abiramapuram, 3rd Street, Mylapore, Chennai – 04.
5	Thiru. N. Kanniah	Trustee	193-B, Railway Colony, Egmore, Chennai – 08.
6	Thiru. C.A. Raja Sridhar	Trustee	No. 35, MalleswararKovil Street, Mylapore, Chennai – 04.

10.1.2.2 Administrative Set-up and functions of various bodies

The working methodology is basically student centric, which is the dearest and highly responsible element of the system. Involvement of each and everyone in the decision-making at their respective levels is ensured through decentralization and delegation of powers. Hence there are various institutional committees consisting of faculty and staff members. Transparency associated therein also forms an important feature of the work culture.

Functions of Key Administrative Positions
Trust Board Functions and Responsibilities

❖ The Board shall be responsible for the general superintendence, direction and control of the affairs of the Institute.
❖ Take decision n questions of policy relating to the administration and working of the Institute, appoint persons to academic as well as other posts in the Institute.
❖ Consider and pass resolutions on the annual report, the annual accounts and the budget estimates of the Institute for the next financial year as it thinks fit and submit them to the Council together with a statement of its development plans.
❖ Give its views and make its recommendations on any financial proposals or issues affecting the Institute to the Board.
❖ Exercise such other posers and perform such other duties as may be conferred or imposed upon it by this actor the statutes.
❖ The Board shall have the power to appoint such committees, as it considers necessary for the exercise of its powers and the performance of its duties under this Act.
❖ Have the power to give the necessary administrative approval and expenditures action form in or works and works pertaining to repair and maintenance, within the approved budgetary provision of the Institute and the Board will define the minor work and minor repair and maintenance in terms of quantum or expenditure.
❖ The Committee shall under the directions of the Board carry on construction of all major works after the necessary administrative approval and expenditures action from the Board.
Governing Council
❖ Consider the recommendations of the Advisory Committees attached to various Departments and that of Expert and other Committees and take such action (including the making of recommendations to the Board) as warranted by each case.
❖ Make periodical review of the activities of the Departments and take appropriate action (including them a king of recommend actions to the Board).
❖ Promote research and academic development or activity within the Institute and seek reports on such research or academic development or activity from the persons engaged therein.
❖ Provide forth inspection of the classrooms, laboratories, library and the Residential Hostels.
❖ Supervise the working of the Library of the Institute.
❖ Plan co-curricular activities of the students of the Institute.
❖ Award stipends, scholarships, medals and prizes and make other awards in accordance with such conditions as may be attached to the awards.
The functions of various key positions are depicted in the below table.

Table: 10.1.2.2 Functions of Key Administrative Positions

Position	Functions
Principal	❖ Design & define organizational structure, quality policy and objectives ❖ Define & delegate responsibilities of various positions in the organization ❖ Ensure periodic monitoring & evaluation of various processes and activities in each department ❖ Prepare annual budget ❖ Conduct periodic meeting of various bodies such as Governing Council, Grievances Redressal Committee etc. ❖ Employee recruitment process ❖ Compliance with AICTE, DOTE & Anna University ❖ Admission ❖ Resource Generation ❖ Internal and External examinations ❖ Library Upgradation ❖ Annual Magazine ❖ Prepare and execute academic calendar ❖ Oversee the teaching-learning process ❖ Consolidating College Result analysis and submitting corrective measures to the management ❖ Co-curricular and Extra-curricular activities ❖ Student discipline
Head of the Departments	❖ Plan and execute academic activities of the department ❖ Maintain discipline and culture in the department ❖ Encouraging students/faculty/staff to attain the expected quality ❖ Monitor academic activities of the department ❖ Propose Department Annual Budget ❖ Conducting Workshops/Symposiums/Seminars/FDPsin National and International levels
IQAC Director	❖ Arranging internal audits ❖ Maintain up-to-date master documents ❖ Ensuring internal academic quality ❖ Conducting FDP programs for quality delivery of lectures ❖ Implementing AICTE exam reformation policies
AICTE & Anna University Affiliation Coordinator	❖ Liasioning with AICTE, DOTE and Anna University ❖ Maintaining Service Register and faculty personal files ❖ Maintaining minutes of the Anna university Affiliation Process and AICTE Approval ❖ AICTE, DOTE, AU Inspection committee preparation
Admission Coordinator	❖ Implement the admission policies framed by the college ❖ Design and print the admission brochure ❖ Execute the admission process ❖ Conducting counselling based on the merit list ❖ Approving the admissions as per the protocols
AAMEC Alumni Association Coordinator	❖ Formation of Alumni student council(ASC) ❖ Arrange periodic meetings of ASC ❖ Ensuring alumni registration ❖ Arranging “Alumni ”meet ❖ Arranging Guest Lectures, Expert Lectures through Alumni

Student Facilitation Centre Coordinator	❖ Organize events through students professional societies/chapters ❖ Organize paper and design contests ❖ Encourage student participation ❖ Publication of technical magazine and newsletters ❖ Record of student participation and achievements in Co-curricular and Extra-curricular activities ❖ Maintain record of such events
Physical Education Director	❖ Encouraging students to their active participation in sports ❖ Ensuring smooth conduct of sports activities ❖ Promoting the students sports ability to achieve medals in Zonal/District/Inter zone/Inter District/State/Interstate meets ❖ Providing all necessary sports Accessories to the students ❖ Create and upkeep the sports facilities ❖ Proposing annual sports budget
Training & Placement Officer	❖ Liasioning with industries to promote the Training & Placement Activities ❖ Identify the students and providing necessary training based on the needs ❖ Arranging campus interviews ❖ Proposing annual budget for Training & Placement
Library In-charge	❖ Plan and execute the routine academic activity of the library ❖ Plan and propose the budget for purchasing new books, journals etc. ❖ Maintain library discipline and culture
Counseling Cell In- charge	❖ Facilitate career guidance to students ❖ Assist the students those who are suffering from psychological disorders ❖ Arranging professional counselors ❖ Maintaining the record of counseling activities
Estate Maintenance	❖ Maintaining updated building plans ❖ Overall building maintenance
Web site In-charge	❖ Maintaining and updating college website ❖ Maintaining softcopy of all the events in college ❖ Publicity of events

10.1.2.3 Frequency, Participations details of External Members and Attendance of Board of Governors, Finance Committee, Building and Works Committee and Senate.

S.No.	Date of meetings	Academic Year	No. of participants (external members)	Total No. of participants
Board of Governors				
1	26.01.2023	2022-2023	4	8
2	27.02.2022	2021-2022	5	12
3	20.02.2020	2020-2021	11	11
4	21.11.2018	2019-2020	9	9
Trust board Meeting				
1	20.02.2020	2019-2020	5	5
2	03.11.2019	2019-2020	2	2
3	02.05.2019	2018-2019	5	5

1.2.4. Minutes of the meetings and action taken reports

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI-614 403, TIRUVARUR DISTRICT

Dt : 27.01.2023

14th Governing Council Meeting on 26.01.2023

Minutes of the meeting

Meeting of 14th Governing Council of Anjalai Ammal – Mahalingam Engineering College, Kovilvenni, Thiruvarur District was conducted on 26.01.2023 at 11.00 AM in the Board Room of Administrative Block. The following members attended the meeting.

S.No	Name of the Members	Mode of Attendance
1.	Justice. Thiru.A.Ramamurthy Managing Trustee , AAMEC	Physical
2.	Tmt. N.T. Selvarani, Trustee, AAMEC	Physical
3.	Tmt. N. V. Devi, Trustee, AAMEC	Online
4.	Thiru. C.A. Raja Sridhar , Trustee, AAMEC	Physical
5.	Dr.K.Gurusamy Prof & former Dean Kalasalingam Academy of Research & Education	Physical
6.	Dr.S.Palani, Professor, Department of Civil & Structural Engg, Annamalai University	Physical
7.	Dr.K.Krishnaraj, Scientist, Council of Scientific and Industrial Research @ Central Leather Research Institute, Chennai	Physical
8.	Mr.S.Kalyanaraman, Chief Executive L & T valves ltd. L & T Campus, Chennai	Physical
9.	Dr.S.N.Ramaswamy, M.E., Ph.D Principal & Ex. Officio Member Secretary	Physical

Principal welcomed the members of the Governing Council. The following points were discussed in the meeting.

1. **Follow up previous meeting & Action taken**

- Members expressed their satisfaction about the NAAC Accreditation and the steps taken for NBA Accreditation.
- Members unanimously approved the proposed introduction of MBA programme.
- Members encouraged to plan for more number of co – curricular and extra-curricular activities.
- Members expressed their satisfaction in bringing out student project work into publication in Journals/ conferences.
- Members suggested that, charges for publishing papers in research journals may be released without any delay.

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI-614 403, TIRUVARUR DISTRICT

2. Monitoring of Academic Activities

- The number of admissions in CORE branches are satisfactory. Members appreciated our policy of admitting students under management quota by conducting a separate counselling, that too with students having cut off more than 100.
- Academic performance is by and large, satisfactory. However, they advised us to explore the possibility of further improvement.

3. Submission of AQAR of IQAC Cell

Annual Quality Assurance Report for April to December 2022 was reviewed by the members and approved for further submission to NAAC authorities.

4. Co – curricular and Extra curricular Activities

- Members insisted to organize more numbers of internship, In-plant Training and workshop for the benefit of students.
- All departments should focus on organizing at least one faculty development program per semester.
- The number of guest lecture arranged is not adequate. It was suggested to arrange additional guest lecture in holidays and or beyond working hours through online mode.
- It was insisted that staff members holding Ph.D degree should prove their accountability in promoting research in the institution.
- Participation and success rate of students in sports activities is satisfactory.
- Placement activities should aim for more number of placements in reputed companies like TCS.
- Governing Council approved the appointment of new staff members. Also insisted to take necessary steps on retaining Ph.D holders.

5. Communications from Government Bodies

Governing Council appreciated the efforts taken by Principal and staff members in discharging various activities as recommended by AICTE, amidst hectic academic schedule.

6. Professional Activities

Professional activities carried out during the past one year is appreciated. The members also advised Principal to increase the number of participations, both by student and staff members in professional activities.

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI-614 403, TIRUVARUR DISTRICT

7. Recommendations of Planning and Monitoring Board

The role of Planning & Monitoring board in improving the quality of education is appreciated by the members of Governing Council.

8. Budget Proposal & approval

Principal presented the expenses statement for 2022 - 2023 ending December 2022 and proposed the budget for 2023 – 2024.

The budget was approved by the Governing Council after the clarifications raised by members and answered by Principal.

9. Infrastructural Developments

The details of expenses incurred towards infrastructural improvements were submitted by Principal. Since the existing infrastructure is adequate, only maintenance works were carried out and so the expenses were less. Members were informed by Principal that it is proposed to re-lay the existing tar topped roads from Girls Hostel to boys' hostel. Also, another tar topped road from PG block to staff residence is proposed to be completed by March 2023.

10. Entrepreneurship Development Cell

The members are highly satisfied with the activities of Entrepreneurship Development Cell.

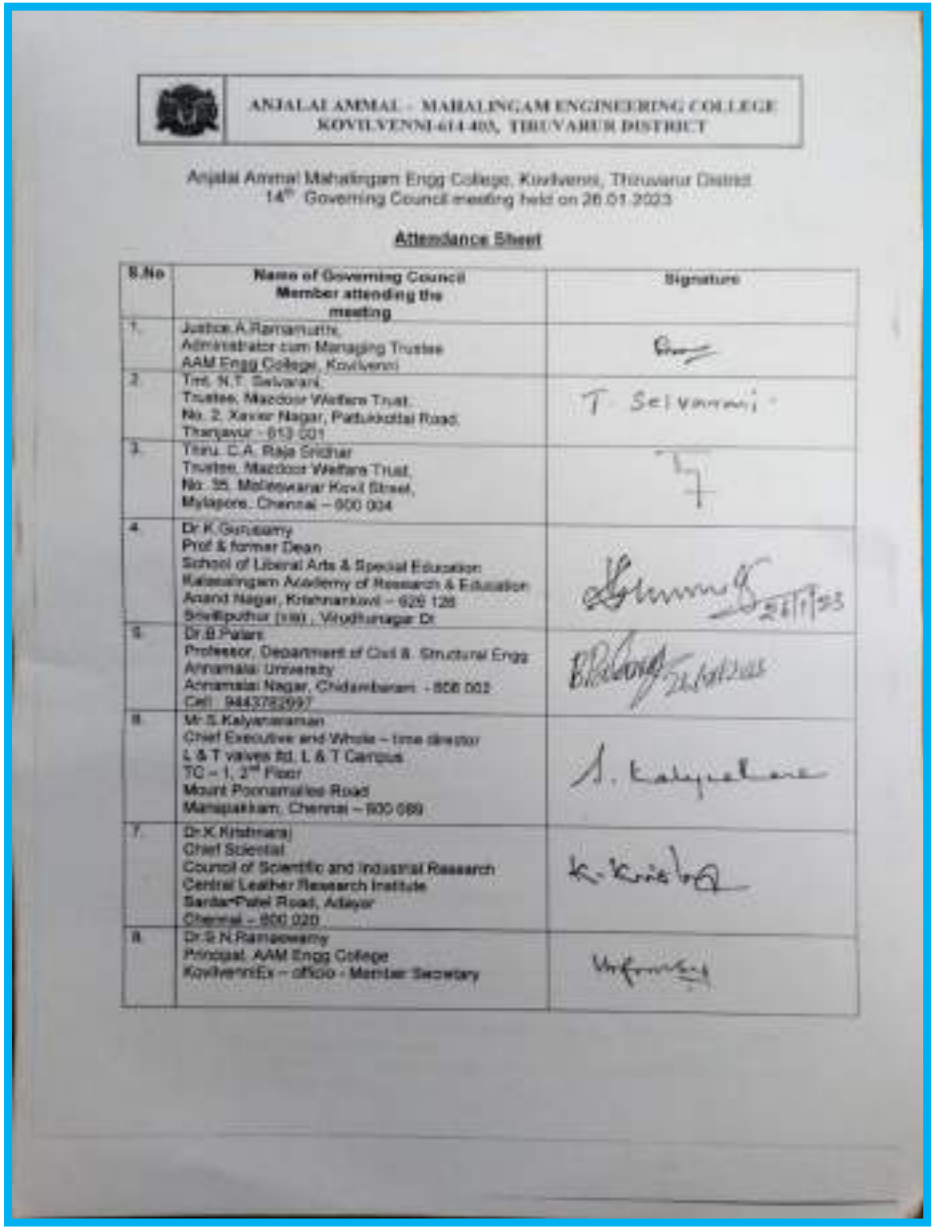
2. Future Plans

The following activities are proposed for implementation

- Applying for Permanent Affiliation for MCA department
- Modification of intake considering demand for CSE & IT
- Organizing Value added courses on Industry 4.0, IoT, etc.
- Applying for Research centre for Mech Engg Dept
- Establishing Foreign language centre for French/ German/ Japanese
- Starting of NCC unit

The meeting ended by 12.20PM with vote of thanks by Principal

Principal & Ex. Officio Member Secretary



ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI-614 403, TIRUVARUR DISTRICT

Anjalai Ammal Mahalingam Engg College, Kovilvenni, Thiruvarur District
14th Governing Council meeting held on 26.01.2023

Attendance Sheet

S.No	Name of Governing Council Member attending the meeting	Signature
1.	Justice.A.Ramamurthi, Administrator cum Managing Trustee AAM Engg College, Kovilvenni	
2.	Tmt. N.T. Selvarani, Trustee, Maddoor Welfare Trust, No. 2, Xavier Nagar, Pattukkottai Road, Thanjavur - 613 001	T. Selvarani
3.	Thiru. C.A. Raja Sridhar Trustee, Maddoor Welfare Trust, No. 55, Mallieswarar Kovil Street, Mylapore, Chennai – 600 004	
4.	Dr.K.Gunasamy Prof & former Dean School of Liberal Arts & Special Education Kalasalingam Academy of Research & Education Anand Nagar, Krishnankovil – 626 126 Sivilliputhur (via), Virudhunagar Dt	26/1/23
5.	Dr.B.Pulari Professor, Department of Civil & Structural Engg Annamalai University Annamalai Nagar, Chidambaram - 608 002 Cell: 9443782997	
6.	Mr.S.Kalyanaraman Chief Executive and Whole – time director L & T valves ltd, L & T Campus TC – 1, 2nd Floor Mount Poonamallee Road Manapakkam, Chennai – 600 089	
7.	Dr.K.Krishnaraj Chief Scientist Council of Scientific and Industrial Research Central Leather Research Institute Sardar Patel Road, Adayar Chennai – 600 020	
8.	Dr.S.N.Ramaswamy Principal, AAM Engg College Kovilvenni – 610 – Member Secretary	

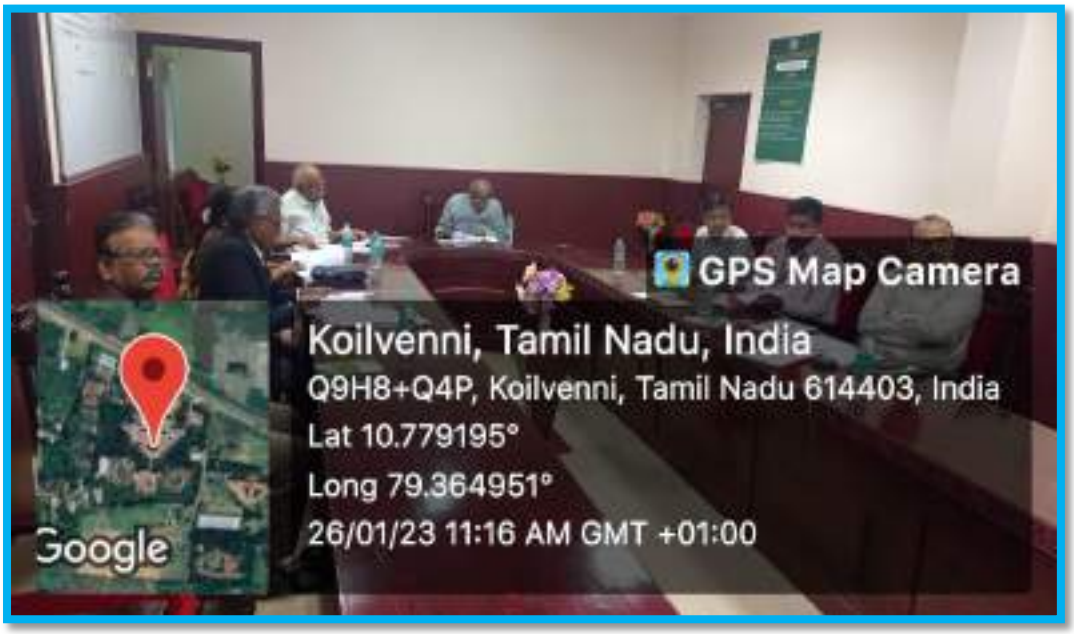


Figure: 1.2.4.1 Governing Council Meeting



Figure: 1.2.4.2 Governing Council Meeting



Figure: 1.2.4.3 Governing Council Meeting

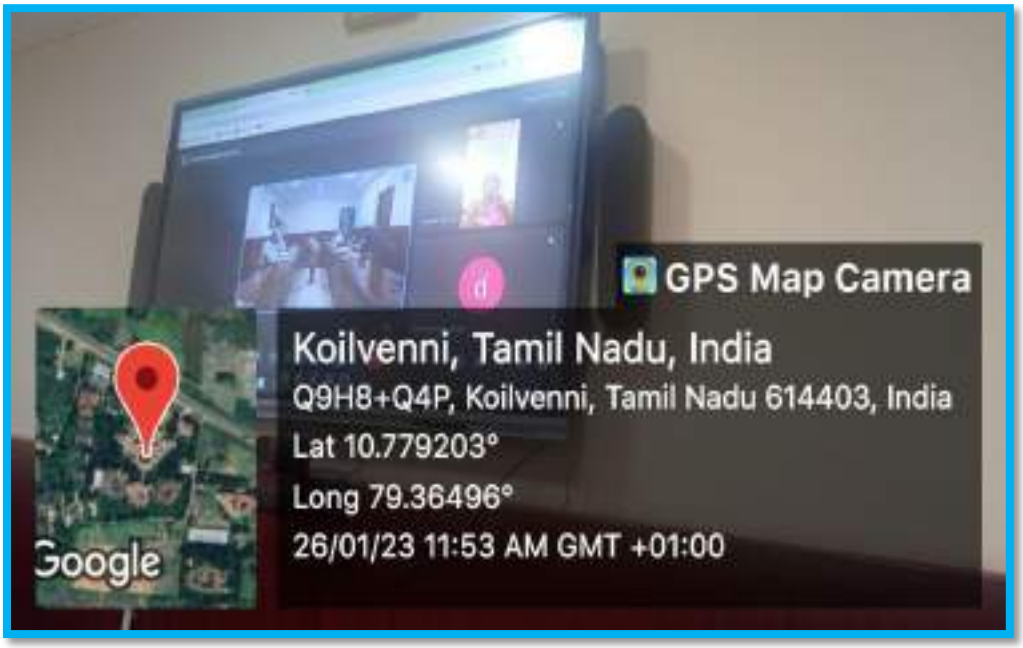


Figure: 1.2.4.4 Governing Council Meeting

13th GOVERNING COUNCIL MEETING on 27.02.2022

MINUTES OF MEETING

Meeting of 13th Governing Council of Anjalai Ammal Mahalingam Engineering College was conducted on 27.02.2022 at 11.45AM in the Board Room of Administrative Block. The following members attended the meeting.

S.No	Name of the Member	Designation	Mode of attendance
1	Justice. A. Ramamurthy	Managing Trustee,AAMEC	Physical
2	Mrs. N.T. Selvarani,	Trustee, AAMEC	Physical
3	Dr. B. Palani	Professor, Annamalai University	Physical
4	Dr. K. Gurusamy	Professor, Kalasalingam University	Physical
5	Mr. K. Kumar	Director, SYSARC Informatics	Physical
6	Mr. V. Kalyanaraman	Chief Executive, L&T Values	Physical
7	Mr. C. A. Raja Sridhar	Trustee, AAMEC	Online
8	Mrs. N. V.Devi	Trustee, AAMEC	Online
9	Mrs.S. Sumathy	DOTE Nominee, GCE, Sengipatti.	Online
10	Dr. K. Krishnaraj	Chief Scientist, CLRI, CSIR	Online
11	Mr. D.Sathees Kumar	Deputy Manager, TNSTC	Online
12	Dr. S.N. Ramaswamy	Principal - Ex-Officio Secretary	Convener

Principal welcomed the members of the Governing Council. The following points were discussed in the meeting.

1. Action taken report for previous Governing Council Meeting:

Principal explained the follow up action taken for the suggestions made by the members of the 12thGoverning Council. It was informed that, all the suggestions were taken up and implemented in bringing the academic improvement of the students and institution. In this regard, Principal cum Member Secretary informed the members about the dates of forthcoming NAAC committee visit, scheduled on 17th and 18th March 2022 for which necessary preparations are in full swing. It is also planned to have a mock visit with the help of external experts from nearby institutions (who got NAAC accredited very recently) during the second week of March 2022.

Principal also informed the members about the status of NBA preparation for four departments viz CSE, IT, ECE and Mech which are satisfying the pre - qualifier requirements. Regarding NBA Accreditation, Principal informed that, registration process is over and Prequalifier will be submitted before 31st March 2022. Self-Assessment Report will be submitted to NBA Authorities before 15th May 2022.

Members expressed their blessings and whole hearted support in achieving NAAC and NBA Accreditation.

2. Monitoring of Academic Activities

Clarification regarding the number of admission was explained by Principal, Members recommended exploring the possibility of introducing MBA programme in our college.

Anna University End Semester Examination Results were presented by Principal. Principal informed that, due to corona, most of the examinations were conducted in online mode only during the past 3 semesters and hence the result is almost 100 %. Principal also informed that the directives stipulated by Government of Tamilnadu were strictly adhered in the academic process – (teaching leaning through google class room).

3. Co-curricular and Extra-curricular activities:

Principal summarized the list of various co-curricular and extra-curricular activities carried out during the period since previous Governing Council Meeting. Members encouraged us to concentrate more on such activities with providing additional importance to sports activities.

The contribution of staff members with Ph. D qualification needs improvement. It has been suggested to fix target for publications for every carde of faculty member. Also, it is proposed to provide incentive scheme for R&D activities. Financial assistance for attending Conferences, payment of publication charges for quality journals were recommended. Managing Trustee instructed Principal to look into the same and submit a proposal for further consideration and approval.

4. Recommendations of staff selection committee

Governing Council approved the appointment of the following staff members who were recruited during 2020-2021 and 2021-2022.

1. Mr. N. Ganesan, Civil – DOJ: 30.01.2020
2. Mr. J. Sudhakar, Chemical – DOJ: 8.02.2021
3. Mr. M. ArunPrakash, IT – DOJ: 11.11.2021
4. Mr. J. Ganesh, CSE – DOJ: 15.11.2021

In addition to the above, the appointment of the following staff members was also approved by the Governing Council.

5. Mrs. Bhuvaneswari Civil – DOJ: 02.03.2022
6. Mrs. E. Arunthavapriya, Civil – DOJ: 04.03.2022
7. Mr. Satheeshkumar, IT – DOJ: 7.03.2022

5. Communications from Government Bodies &and Policy Decisions

Principal informed the members about the formation of various committees and their activities in accordance with the requirements prescribed by AICTE (received through e-mail).

6. Monitoring of Students and Faculty Development Programme

Members expressed their satisfaction about the number of programmes organized and / participated by staff members and students. They advised Principal to make necessary arrangements and conduct more such programmes, especially for Chemical and Civil Engineering departments.

7. Action taken on the recommendations of Planning and Monitoring Board

Members expressed their satisfaction regarding the precautionary measures taken in adhering to the norms of Government in running the institution and carrying out academic activities during this COORONA period.

8. Budget Proposal and Approval:

Expenditure proposal and budget were approval by the members of Governing council.

9. Suggestions from Members:

- It was recommended that the number of publications must be increased, for which final years student's project must be converted into publications.
- Members recommended providing Research incentive scheme in the way of offering financial rewards to Scopus, SCJ and other publications besides appreciation and recognition.
- At least one MoU must be signed from each department
- Appreciation certificate to be collected from AICTE if 360 degree feedback process is implemented in full.
- It was recommended to approach Tamilnadu Small Scale Industries division, to collect the list of companies who provide training and placement opportunities to students of Civil, Mechanical and Electrical Engineering branches.
- Full time Training and Placement officer is to be appointed (without any academic load) to improve the placements

- Training activities under MSME needs more concentration
- Members expressed their satisfaction about the activities of EDC cell and encouraged as to take necessary steps to get five star status for EDC activities.

Principal / Member Secretary
Principal,
Anjalai Ammal Mahalingam
Engineering College,
Kovilvenni - 614 403



Figure: 1.2.4.5 Governing Council Meeting (27.02.2022)



Figure: 1.2.4.6 Governing Council Meeting (27.02.2022)

12th GOVERNING COUNCIL MEETING on 20.02.2020
MINUTES OF MEETING

Meeting of 12th Governing Council of AnjalaiAmmalMahalingam Engineering College was conducted on 20.02.2020 at 11.30AM in the Board Room of Administrative Block. The following members attended the meeting.

S.No	Name of the Member	Designation
1	Justice. A. Ramamurthy	Managing Trustee, AAMEC
2	Mrs. S. Sumathy	DOTE Nominee, GCE, Sengipatti.

3	Dr. B. Palani	Professor, Annamalai University
4	MrN. Murugan,	Additional General Manager, (Retd), BHEL, Trichy.
5	Mr. S. Sivakumar	Controller of Examinations,TCE, Madurai.
6	Mr.K. Manikandan	M/s Vuram Technologies Solution (P) Ltd, Trichy.
7	Mrs. N.T. Selvarani,	Trustee, AAMEC
8	Mrs. N. V.Devi	Trustee, AAMEC
9	Mrs. N. V. Usha,	Trustee, AAMEC
10	Mr. C. A. Raja Sridhar	Trustee, AAMEC
11	Dr. S.N. Ramaswamy	Principal & Ex-Officio Secretary, AAMEC

Principal welcomed the members of the Governing Council. The following points were discussed in the meeting.

2. Action taken report for previous Governing Council Meeting:

Principal explained the follow up action taken for the suggestions made by the members of the Governing Council. It was informed that, almost all the suggestions were taken up and implemented except the following.

- Foreign language courses like French & German could not be conducted due to the poor response from students.
- Training on Tekla software was not conducted and Principal assured that it will be taken up for the needy students.
- Very few guest lectures are organized with Industrial experts and it was informed that active measures will be taken up in subsequent weeks to arrange such lectures.

3. **Budget – Proposal & Approval for 2019-2020:**

The financial statement for the financial year 2019-2020 and Budget for 2019-20 and 2020-2021 were submitted by the Principal. The Governing Council approved the proposal for implementation.

4. Communications received from AICTE –Action taken:

Principal listed the communication received from AICTE and formation of various committees to adhere to the requirements of AICTE. The members expressed their satisfaction regarding the implementation of various activities such as tree plantation, plastic waste collection, adapting nearby village, etc.

5. Academic Activities:

Reasons for reduction in admissions and pass percentage were enquired by the members. Principal explained the reasons for the same. It was recommended that staff members should be encouraged to attend faculty development programmes organized by premier institutions like IIT, NIT and Anna University only.

6. Co-curricular and Extra-curricular activities:

Principal narrated the Co-curricular and Extra-curricular activities being carried out during the past one year. The members expressed their satisfaction and asked to maintain the same.

7. Training & Placement activities:

Principal listed the number of companies and placements made by on-campus and off-campus modes during the present academic year. He informed that as on today, 293 students were placed in various companies out of the present final year strength of 596. Members asked for the nil placements in Civil Engineering branch and gave necessary suggestions to improve the same. Regarding the training programmes organized focusing placements, the members expressed their satisfaction.

8. Infrastructural improvements:

Principal informed the members about the new construction activities such as Gymnasium, Indoor stadium and renovation of toilets.

9. Any other points:

In order to promote scientific research and to encourage participation of young scientists and research professionals in the events organized by the Science and Engineering Board (SERB) under the Department of Science and Technology, Government of India, New Delhi, Principal has been authorized to receive financial assistance from SERB.

10. Suggestion from members:

Members recommended applying for NBA and NAAC Accreditation as early as possible so as to satisfy the mandatory requirements stipulated by AICTE.

Principal / Member Secretary
Principal,
Anjalai Ammal Mahalingam
Engineering College,
Kovilvenni - 614 403

MINUTES OF 11th GOVERNING COUNCIL MEETING on 21.11.18

The first Meeting of ELEVENTH GOVERNINGCOUNCIL of AAMEC was conducted on 21.11.2018 at 10.30 AM in the Board Room at college premises (Kovilenni).

The following members attended the meeting.

S.No	Name of the Member	Designation
1	Justice. A. Ramamurthy	Managing Trustee, AAMEC
2	Dr. S. Sumathy	DOTE Nominee, GCE, Sengipatti.
3	Mr.K.Ramesh	Asst.General Manager, Rajiv Gandhi Memorial Telecom Training Centre, BSNL, Chennai-16.
4	Mr. N. Murugan,	Additional General Manager, (Retd), BHEL, Trichy.
5	Dr.B.Palani	Professor Department of Structural Engg,AnnamalaiUniversity, Annamalai Nagar-608002
6	Mr. S. Sivakumar	Controller of Examinations,TCE, Madurai.
7	Mr.K. Manikandan	M/s Vuram Technologies Solution (P) Ltd, Trichy.
8	Mr.S.Satheesh kumar	Deputy Manager (Commercial), TNSTC, Kumbakonam
9	Dr. S.N. Ramaswamy	Principal & Ex-Officio Secretary, AAMEC

Principal welcomed the members of the Eleventh Governing Council and made a presentation about the institution.

The following agenda points were discussed in the meeting.

1. Action taken report for previous Governing Council Meeting Principal informed the members about the following actions taken as per there commendations of the tenth Governing Council.

- Minor modifications suggested in Vision and Mission of the Institution and Departments were incorporated.

- Department wise result analysis, as requested by the Governing Council was prepared and presented now.
- As per the recommendations of the Governing Council, faculty members were encouraged to attend more FDPs organized by leading Institutions.
- Special coaching classes are organized to improve the academic performance of students.
- Additional Guest lectures are organized to support the effective teaching-learning process.
- Faculty members are encouraged to use NPTEL videos more effectively for better understanding of concepts by students.
- ANSYS Centre of Excellence was established at a cost of 177 lakhs (2016-2017). The license was renewed in 2017-2018 at a cost of 7 lakhs.
- More training programmes are organized both with the AAMEC faculty and from external agencies.
- Toilets are being renovated in a phased manner.

2. Budget–Proposal&Approvalfor2018-2019

Principal presented the income and expenditure details, as given in the points for discussion. Accordingly, a sum of Rupees 15, 11, 95,000 is provided forth expenses during the academic year 2018–2019 based on the actual expenses incurred during 2017-2018 amounting to 14,48,46,757

3. Communications received from AICTE–Action taken report

Principal informed the members about the establishment of

(i)Grievance Redress Cell and

(ii)Anti–Ragging Committee/Squad

As per the instructions received from AICTE. Accordingly, a separate menu was created in the website of college with the following link. **http://aamecgrievance.000webhostapp.com.** Students and staff members can also email their grievances to **grievance@aamec.edu.in**

As laid down in clause 6(a) of AICTE regulations on curbing the menace of ragging in Higher Education Institutions, an Anti Ragging committee is constituted in AAMEC, Kovilvenni, Thiruvarur district.

4. Academic Activities:

The details of admissions for the past three academic years, student strength, department-wise result analysis were presented by the Principal. Members of the Governing Council appreciated the efforts taken by the staff members introducing 2 rank holders in B.E Mechanical Engineering. Principal also informed them embers that the MCA department has produced 25 rank holders (among the top 50 ranks announced by ANNA University) during the academic year2017-2018.

5. Accreditation–Establishment of IQAC

Principal informed the members that an Internal Quality Assurance Cell(IQAC)was established recently with the aim of improving teaching learning process and focusing on NBA/NAAC Accreditation.

6. Additional Infrastructure created

The details of additional infrastructure created after the Tenth Governing Council Meeting was presented by the Principal. Accordingly, a total amount of Rs 9, 33, 05,472 (Nine crores thirty three lakhs five thousand and four hundred seventy two) was spent for the development of our college.

7. Training & Placement activities

Principal informed the members about the Training & Placement activities being carried out in the college. Principal also informed that we are providing training to students in soft skills, aptitude,

technical and Group discussions for every placement drive. So far, four companies have conducted their on-campus drive in campus and the results are awaited.

8. Suggestion from members

1. Include the word "state of the art" in the Vision of the Institution.
2. Create confidence among students during the first year itself so that they can face real world problems.
3. Scope for career prospects / job opportunities are to be informed before the start of second years at the students can be molded accordingly.
4. Results of internal tests and attendance must be sent to parents by post and sms.
5. Ensure that staff members are easily accessible to students. Strengthen the activities of Faculty Advisory System.
6. Make Gate Coaching mandatory for all the faculty members.
7. Encourage students and staff to use mobile based apps for studies and prepare for GATE Examinations.
8. Ask the staff members to teach one GATE question daily.
9. Encourage students and staff to use latest software for structural design. Special training programme on Advanced Surveying with the use of Total Station, structural design using Tekla software can be arranged.
10. Provide more exposure and knowledge on relevant Indian Standards.
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12. Collect feedback from alumni (passed at least before five years) regarding the knowledge gap and plan for providing extra inputs to students.
13. For Guest Lectures, invite resource Persons only from industries so that the students are equipped with the current trends in industry.
14. Encourage faculty members to participate in more number of online courses organized by MIT, NPTEL, etc. which are more effective than attending FDP.
15. Use more audio-visual aids in classroom for better understanding by students.
16. Insist the faculty members to attend webinar courses.
17. Organize more number of Industrial Visits (which should not be a tour).
18. Encourage students to use video lectures such as those from khan academy for better understanding of basic concepts.
19. Take measures to improve spoken English and communication skills.
20. Establish a centre and make arrangements for providing training to students for competitive examinations like UPSC, TNPSC, etc.
21. Give more concentration to non-mandatory requirements such as extra-curricular activities. Activities of Tamil Mandram can be initiated. Provide certificates and medals to students for participating in similar activities.
22. Increase the number of activities of NCC, NSS, Sports, etc, and in an effective manner.
23. Introduce incentive schemes to staff members for achieving 100% results
24. Include student members in applying for patents.
25. Organize Industrial Fitness Program/Skill Training Program for better placement chances.

26. Make arrangements to setup real time environment on current trends. Working models of machinery/plant layout models can be used for better understanding.

27. All the final year students are to be encouraged to undergo Training Programmes offered by BSNL under NSDC.

28. Improve the quality of food. Form committee to monitor the same.

29. Any other points

It was insisted to provide ramps, handrails lifts and special toilets for physically challenged persons as per the mandatory requirements of AICTE.

The meeting ended at 12.50 PM with the vote of thanks by Principal.

Principal / Member Secretary

Principal,
Anjalai Ammal Mahalingam
Engineering College,
Kovilvenni - 614 403

ANJALAI AMMAL – MAHALINGAMENGINEERINGCOLLEGE

KOVILVENNI-614 403, TIRUVARUR DISTRICT

Dt :28.02.2022

13th GOVERNING COUNCIL MEETING on 27.02.2022

MINUTES OF MEETING

Meeting of 13th Governing Council of Anjalai Ammal Mahalingam Engineering College was conducted on 27.02.2022 at 11.45AM in the Board Room of Administrative Block. The following members attended the meeting.

S.No	Name of the Member	Designation	Mode of attendance
1	Justice. A. Ramamurthy	Managing Trustee,AAMEC	Physical
2	Mrs. N.T. Selvarani,	Trustee, AAMEC	Physical
3	Dr. B. Palani	Professor, Annamalai University	Physical
4	Dr. K. Gurusamy	Professor, Kalasalingam University	Physical
5	Mr. K. Kumar	Director, SYSARC Informatics	Physical
6	Mr. V. Kalyanaraman	Chief Executive, L&T Valves	Physical
7	Mr. C. A. Raja Sridhar	Trustee, AAMEC	Online
8	Mrs. N. V.Devi	Trustee, AAMEC	Online
9	Mrs.S. Sumathy	OOTE Nominee, GCE, Sengipatti.	Online
10	Dr. K. Krishnaraj	Chief Scientist, CLRI, CSIR	Online
11	Mr. D.Sathees Kumar	Deputy Manager, TNSTC	Online
12	Dr. S.N. Ramaswamy	Principal - Ex-Officio Secretary	Convener

Principal welcomed the members of the Governing Council. The following points were discussed in the meeting.

1. Action taken report for previous Governing Council Meeting:

Principal explained the follow up action taken for the suggestions made by the members of the 12th Governing Council. It was informed that, all the suggestions were taken up and implemented in bringing the academic improvement of the students and institution. In this regard, Principal cum Member Secretary informed the members about the dates of forthcoming NAAC committee visit, scheduled on 17th and 18th March 2022 for which necessary preparations are in full swing. It is also planned to have a mock visit with the help of external experts from nearby institutions (who got NAAC accredited very recently) during the second week of March 2022.

Principal also informed the members about the status of NBA preparation for four departments viz CSE, IT, ECE and Mech which are satisfying the pre - qualifier requirements.

Regarding NBA Accreditation, Principal informed that, registration process is over and Prequalifier will be submitted before 31st March 2022. Self Assessment Report will be submitted to NBA Authorities before 15th May 2022.

Members expressed their blessings and whole hearted support in achieving NAAC and NBA Accreditation.

2. Monitoring of Academic Activities

Clarification regarding the number of admission was explained by Principal, Members recommended exploring the possibility of introducing MBA programme in our college.

Anna University End Semester Examination Results were presented by Principal. Principal informed that, due to corona, most of the examinations were conducted in online mode only during the past 3 semesters and hence the result is almost 100 %. Principal also informed that the directives stipulated by Government of Tamilnadu were strictly adhered in the academic process – (teaching leaning through google class room).

3. Co-curricular and Extra curricular activities:

Principal summarised the list of various co-curricular and extra curricular activities carried out during the period since previous Governing Council Meeting. Members encouraged us to concentrate more on such activities with providing additional importance to sports activities.

The contribution of staff members with Ph. D qualification needs improvement. It has been suggested to fix target for publications for every carde of faculty member.

Also, it is proposed to provide incentive scheme for R&D activities. Financial assistance for attending Conferences, payment of publication charges for quality journals were recommended. Managing Trustee instructed Principal to look into the same and submit a proposal for further consideration and approval.

4. Recommendations of staff selection committee

Governing Council approved the appointment of the following staff members who were recruited during 2020-2021 and 2021-2022.

1. Mr. N. Ganesan, Civil – DOJ: 30.01.2020
2. Mr. J. Sudhakar, Chemical – DOJ: 8.02.2021
3. Mr. M. Arun Prakash, IT – DOJ: 11.11.2021
4. Mr. J. Ganesh, CSE – DOJ: 15.11.2021

In addition to the above, the appointment of the following staff members were also approved by the Governing Council.

5. Mrs. Bhuvaneswari Civil – DOJ: 02.03.2022
6. Mrs. E. Arunthavapriya, Civil – DOJ: 04.03.2022
7. Mr. Satheesh kumar, IT – DOJ: 7.03.2022

5. Communications from Government Bodies &and Policy Decisions

Principal informed the members about the formation of various committees and their activities in accordance with the requirements prescribed by AICTE (received through e-mail).

6. Monitoring of Students and Faculty Development Programme

Members expressed their satisfaction about the number of programmes organized and / participated by staff members and students. They advised Principal to make necessary arrangements and conduct more such programmes, especially for Chemical and Civil Engineering departments.

7. Action taken on the recommendations of Planning and Monitoring Board

Members expressed their satisfaction regarding the precautionary measures taken in adhering to the norms of Government in running the institution and carrying out academic activities during this COVID-19 period.

8. Budget Proposal and Approval:

Expenditure proposal and budget were approved by the members of Governing council.

9. Suggestions from Members:

- It was recommended that the number of publications must be increased, for which final years student's project must be converted into publications.
- Members recommended providing Research incentive scheme in the way of offering financial rewards to Scopus, SCI and other publications besides appreciation and recognition.
- At least one MoU must be signed from each department
- Appreciation certificate to be collected from AICTE if 360 degree feedback process is implemented in full.
- It was recommended to approach Tamilnadu Small Scale Industries division, to collect the list of companies who provide training and placement opportunities to students of Civil, Mechanical and Electrical Engineering branches.
- Full time Training and Placement officer is to be appointed (without any academic load) to improve the placements
- Training activities under MSME needs more concentration
- Members expressed their satisfaction about the activities of EDC cell and encouraged as to take necessary steps to get five star status for EDC activities.

Principal / Member Secretary

Principal,
Anjalai Ammal Mahalingam
Engineering College,
Kovilvenni - 614 403

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
KOVILVENNI-614 403, TIRUVARUR DISTRICT

Anjalai Ammal Mahalingam Engg College, Kovilvenni, Thiruvarur District 13th Governing Council meeting held on 27.02.2022

Attendance Sheet

S.No	Name of Governing Council Member attending the meeting with mobile No	Signature
1	Justice.A.Ramamurthi, Administrator cum Managing Trustee AAM Engg College, Kovilvenni	
2	Tmt. N.T. Selvarani, Trustee, Mazdoor Welfare Trust, No. 2, Xavier Nagar, Pattukkottai Road, Thanjavur - 613 001	
3	Dr.K.Gurusamy Prof & former Dean School of Liberal Arts & Special Education Kalasalingam Academy of Research & Education Anand Nagar, Krishnankovil – 626 126 Srivilliputhur (via), Virudhunagar Dt	
4	Dr.B.Palani Professor, Department of Civil & Structural Engg Annamalai University Annamalai Nagar, Chidambaram - 608 002 Cell : 9443782997	
5	Mr.S.Kalyanaraman Chief Executive and Whole – time director L & T valves ltd, L & T Campus TC – 1, 2nd Floor Mount Poonamallee Road Manapakkam, Chennai – 600 089	
6	Mr.K.Kumar , Director SysArc Informatix Private Ltd No – 1, Defence Officer's Colony Nandampakkam Chennai – 600 032	
7	Dr.S.N.Ramaswamy Principal, AAM Engg College KovilvenniEx – officio - Member Secretary	

Anjalai Ammal-Mahalingam Engineering College,
Kovilvenni - 614 403.

12th GOVERNING COUNCIL MEETING on 20.02.2020

MINUTES OF MEETING

Meeting of 12th Governing Council of Anjalai Ammal Mahalingam Engineering College was conducted on 20.02.2020 at 11.30AM in the Board Room of Administrative Block. The following members attended the meeting.

S.No	Name of the Member	Designation
1	Justice. A. Ramamurthy	Managing Trustee, AAMEC
2	Mrs. S. Sumathy	**DOTE Nominee, GCE, Sengipatti.**
3	Dr. B. Palani	Professor, Annamalai University
4	Mr. N. Murugan,	Additional General Manager, (Retd), BHEL, Trichy.
5	Mr. S. Sivakumar	Controller of Examinations,TCE, Madurai.
6	Mr.K. Manikandan	M/s Vuram Technologies Solution (P) Ltd, Trichy.
7	Mrs. N.T. Selvarani,	Trustee, AAMEC
8	Mrs. N. V.Devi	Trustee, AAMEC
9	Mrs. N. V. Usha,	Trustee, AAMEC, Special Invitee
10	Mr. C. A. Raja Sridhar	Trustee, AAMEC
11	Dr. S.N. Ramaswamy	Principal & Ex-Officio Secretary, AAMEC

Principal welcomed the members of the Governing Council. The following points were discussed in the meeting.

1. **Action taken report for previous Governing Council Meeting:**

Principal explained the follow up action taken for the suggestions made by the members of the Governing Council. It was informed that, almost all the suggestions were taken up and implemented except the following.

- Foreign language courses like French & German could not be conducted due to the poor response from students.
- Training on Tekla software was not conducted and Principal assured that it will be taken up for the needy students.
- Very few guest lectures are organized with Industrial experts and it was informed that active measures will be taken up in subsequent weeks to arrange such lectures.

2. **Budget – Proposal & Approval for 2019-2020:**

The financial statement for the financial year 2019-2020 and Budget for 2019-20 and 2020-2021 were submitted by the Principal. The Governing Council approved the proposal for implementation.

3. **Communications received from AICTE –Action taken:**

Principal listed the communication received from AICTE and formation of various committees to adhere to the requirements of AICTE. The members expressed their satisfaction regarding the implementation of various activities such as tree plantation, plastic waste collection, adapting nearby village, etc.

4. **Academic Activities:**

Reasons for reduction in admissions and pass percentage were enquired by the members. Principal explained the reasons for the same. It was recommended that staff members should be encouraged to attend faculty development programmes organized by premier institutions like IIT, NIT and Anna University only.

5. **Co-curricular and Extra-curricular activities:**

Principal narrated the Co-curricular and Extra-curricular activities being carried out during the past one year. The members expressed their satisfaction and asked to maintain the same.

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Principal listed the number of companies and placements made by on-campus and off-campus modes during the present academic year. He informed that as on today, 293 students were placed in various companies out of the present final year strength of 596. Members asked for the nil placements in Civil Engineering branch and gave necessary suggestions to improve the same.

Regarding the training programmes organized focussing placements, the members expressed their satisfaction.

7. **Infrastructural improvements:**

Principal informed the members about the new construction activities such as Gymnasium, Indoor stadium and renovation of toilets.

8. **Any other points:**

In order to promote scientific research and to encourage participation of young scientists and research professionals in the events organized by the Science and Engineering Board (SERB) under the Department of Science and Technology, Government of India, New Delhi, Principal has been authorized to receive financial assistance from SERB.

9. **Suggestion from members:**

Members recommended applying for NBA and NAAC Accreditation as early as possible so as to satisfy the mandatory requirements stipulated by AICTE.

Principal

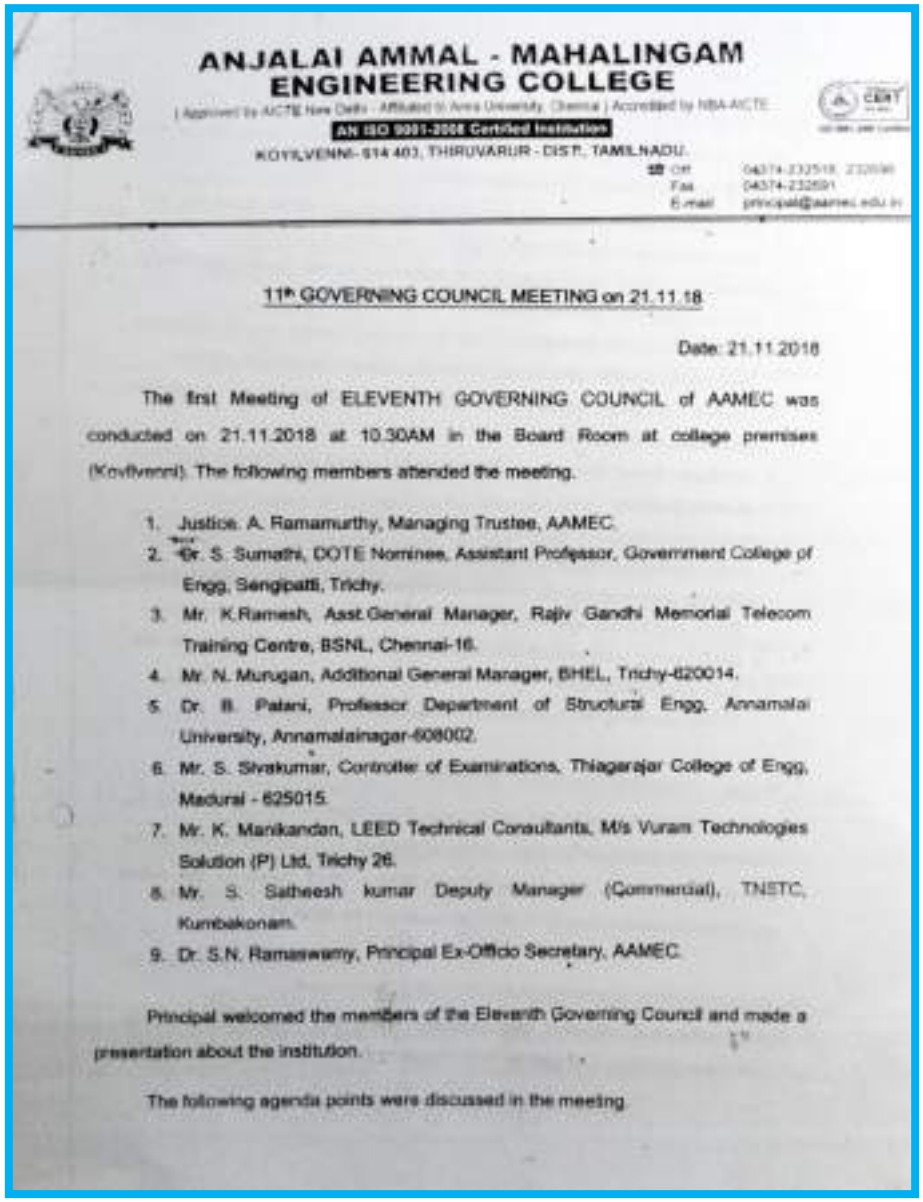
Principal,
Anjalai Ammal Mahalingam
Engineering College

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE,
KOVILVENNI, THIRUVARUR DISTRICT – 614 403.
Website: www.aamec.edu.in

12th GOVERNING COUNCIL MEETING – 20.02.2020

Attendance Sheet

S.No	Name of the Expert	Address	Signature
1	Justice. A. Ramamurthy, Managing Trustee, AAMEC	Plot No: 9, III Main Road, Mogappair west Garden, Chennai – 37.	
2	Mrs. S. Sumathy, **DOTE Nominee**	Assistant Professor, Government College of Engg, Sengipatti, Trichy.	
3	Dr. B. Palani Professor	Department of Structural Engg, Annamalai University, Annamalainagar-608002	
4	Mr. N. Murugan	Additional General Manager, (Retd), BHEL, Trichy-620014.	
5	Mr. S. Sivakumar	Controller of Examinations, Thiagarajar College of Engg, Madurai - 625015	
6	Mr.K. Manikandan	LEED Teachnical Consultants, M/s Vuram Technologies Solution (P) Ltd, Level – 1, ELCOT IT Park, Navalpattu Village, Trichy 26.	
7	Mr. K.Ramesh	Asst.General Manager Rajiv Gandhi Memorial Telecom Training Centre, BSNL, Chennai-16.	ABSENT
8	Mr. S.Satheesh kumar	Deputy Manager (Commercial), TNSTC, Kumbakonam	ABSENT
9	Mrs. N.T. Selvarani, Trustee, AAMEC	No: 2, Xavier Nagar, Pattukkottai Road, Thanjavur – 613001.	T Selvarani
10	Mrs. N. V.Devi Trustee, AAMEC	11 A/ 27, Alamelumangapuram, 2nd street, Mylapore, Chennai – 04.	
11	Mrs. N. V. Usha, Trustee, AAMEC	15/8, East Abiramapuram, 3rd street, Mylapore, Chennai – 04.	N.V. Usha
12	Mr. C. A. Raja Sridhar Trustee, AAMEC	No: 35, Malleswarar Kovil street, Mylapore, Chennai – 04.	
13	Mr. N. Kannaih Trustee, AAMEC	193 – B, Railway Colony, Egmore, Chennai - 08	ABSENT
14	Dr. S.N. Ramaswamy Principal	Ex-Officio Secretary, AAMEC	20/2/2020



ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

| Approved by AICTE New Delhi - Affiliated to Anna University, Chennai | Accredited by NBA-AICTE

AN ISO 9001:2008 Certified Institution

KOVILVENNI- 614 403, THIRUVARUR - DIST., TAMILNADU.

Off 04374-232518, 232590
Fax 04374-232591
E-mail principal@aamec.edu.in

11th GOVERNING COUNCIL MEETING on 21.11.18

Date: 21.11.2018

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9. Dr. S.N. Ramaswamy, Principal Ex-Officio Secretary, AAMEC.

Principal welcomed the members of the Eleventh Governing Council and made a presentation about the institution.

The following agenda points were discussed in the meeting.

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21. Give more concentration to non-mandatory requirements such as extra - curricular activities. Activities of Tamil Mandram can be initiated. Provide certificates and medals to students for participating in similar activities.
22. Increase the number of activities of NCC, NSS, Sports, etc, and in an effective manner.
23. Introduce incentive schemes to staff members for achieving 100% results.
24. Include student members in applying for patents.
25. Organize Industrial Fitness Program / Skill Training Program for better placement chances.
26. Make arrangements to set up real time environment on current trends. Working models of machinery / plant layout models can be used for better understanding.
27. All the final year students are to be encouraged to undergo Training Programmes offered by BSNL under NSDC.
28. Improve the quality of food. Form committee to monitor the same.
29. Any other points

It was insisted to provide ramps, hand rails lifts and special toilets for physically challenged persons as per the mandatory requirements of AICTE.

The meeting ended at 12.50PM with the vote of thanks by Principal.

Principal & Member Secretary

ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE,
KOVILVENNI, THIRUVARUR DISTRICT – 614 403.
Website: www.aamec.edu.in

11TH GOVERNING COUNCIL MEETING – 21.11.2018

Attendance Sheet

S.No	Name of the Expert	Address	Signature
1	Justice. A. Ramamurthy, Managing Trustee, AAMEC	Plot No: 9, III Main Road, Mogappair west Garden, Chennai – 37.	
2	Dr. D. Viswanathan, Former Vice Chancellor, Anna University, Chennai.	Block – 1, 6th Floor, Flat B INDUS-AMBER Apartments 73-West Jones Road, West Saidapet, Chennai-600015	ABSENT
3	Dr. S. Sumathy, DOTE Nominee	Assistant Professor, Government College of Engg. Sengipatti, Trichy.	
4	Mr. Emarasu Karunesan, CEO-ADANI Ports &SEZ, 9884305955	Ramcons Formula Towers, 4th Floor No.1/2, Kodambakkam High Road, Nungambakkam,Chennai-34	ABSENT
5	Dr. V. S. Senthilkumar,	Professor & Addl Director, Centre for Technology Development & Transfer, Anna University, Chennai.	ABSENT
6	Dr. C. Anandharamakrishnan	Director, (IIFPT), Pudukkottai Road, Thanjavur 5.	ABSENT
7	Dr. V. Vasudevan, Registrar	Kalasalingam Academy of Research & Education, Anand Nagar, Krishnankoil, Srivilliputhur-626126.	ABSENT
8	Mr. K.Ramesh	Asst.General Manager Rajiv Gandhi Memorial Telecom Training Centre, BSNL, Chennai-16.	
9	Mr. N. Murugan	Additional General Manager, BHEL, Trichy-620014.	
10	Dr. B. Palani Professor	Department of Structural Engg. Annamalai University, Annamalainagar-608002	
11	Mr. S. Sivakumar	Controller of Examinations, Thiagarajar College of Engg. Madurai - 625015	
12	Mr.K. Manikandan	LEED Technical Consultants, M/s Vuram Technologies Solution (P) Ltd, Level – 1, ELCOT IT Park, Navalpattu Village, Trichy 26.	
13	Mr. S.Santhosh kumar	Deputy manager (Commercial), TNSTC, Kumbakonam	
14	Dr. S.N. Ramaswamy Principal	Ex-Officio Secretary, AAMEC	

10.1.2.5. Service rules, procedures, recruitment and promotional policies

1. SERVICE CONDITIONS

1.1 INTRODUCTION

AAM Engg. College is designed to serve as a Center for Academic Excellence in imparting Technical Education. The Institution is having recognition of All India Council of Technical Education and is affiliated to Anna University, Chennai. It has been established by the Mazdoor Welfare Trust, which is a non-profit trust. The management of the trust is the supreme authority, under which the Institution functions. The management is responsible for the development and/or approval of the Institution programmes and for the policies under which the Institution operates. The management considered that it is necessary to formulate the terms and conditions of service for regulating the various categories/levels of employees employed in the Institution existing. These conditions of service are well formulated, taking into consideration the various aspects and aspirations of the teaching and non-teaching staff. The principal objective is to attract persons with missionary zeal and to retain the well-qualified and talented staff in all disciplines, with the ultimate object of imparting high standard and quality education in the field of Engineering and Technology.

Having set the aforesaid goals, it is necessitated for the Institution to frame conditions of employment, which are clearly just and fair to the interest of both the employees and the Institution. These service conditions are aimed to encourage the employees to take sincere interest and pride in the Institution and its progress and to put their best talents in the discharge of their responsibilities.

The Institution wishes to encourage its employees to improve their professional qualification on par with changing needs of the Engineering education and to grow in their abilities to serve the Institution. Likewise, it wishes to appropriately evaluate, recognize and reward superior performance. The following service conditions are framed with this in mind; however, these conditions and practices will be reviewed periodically and such changes will be made as experience indicates.

These service rules concern only regular employees who are employed on the rolls of the Institution and on continuing positions. Some persons may be employed on temporary/Adhoc/contractual/part-time basis for a specific purpose and/or for a specific period of time. Such employees are not covered under the provisions of these rules/policies outlined herein, beyond the extent set forth in their respective letters of appointment/agreement.

The Management of AAM Engg. College had made the following rules and regulations, for administration of the Institution.

1.2SHORT TITLE: These regulations may be called as the AAM Engg. College Service Rules.

1.3 APPLICABILITY: They shall come into force (deemed to have come into force) with effect from 1st January 2016 and shall apply to all the regular employees of the Institution. Unless otherwise stated specifically, these rules and regulations shall not apply to persons employed on temporary or on adhoc basis or on contractual basis.

1.4DEFINITIONS: With these rules and regulations, unless the context otherwise requires:

(a) Management means the trust members headed by Managing Trustee/Chairman, duly constituted under the specific byelaws of the Trust under which the Institution is established which a supreme authority is. However, the overall Management and the day-to-day administration of the Institution shall rest with the Managing Trustee/Chairman.

(b) 'Employee' means a regular employee employed by AAM Engg. College to discharge the duties for teaching and non-teaching purposes on remuneration basis.

(c) 'Salary' means Basic Pay, Dearness Allowance and other allowances, if any, wherever applicable or consolidated pay without any allowances payable to an employee.

(d) 'Service' includes the period during which an employee is on duty as well as on leave duly authorized by the Management, but does not include any period during which an employee is absent without salary.

(e)Disciplinary Authority: The Managing Trustee/Chairman is the disciplinary authority for all the employees employed in the Institution. The Managing Trustee may authorize any other person to be the disciplinary authority for a certain cl*ass/category* of employees. The person so nominated shall exercise the powers of the disciplinary authority in discharge of the duty.

(f) Appellate Authority: Where the disciplinary authority is being exercised by other person, the Managing Trustee/Chairman will be the Appellate Authority.

(g)Enquiry Officer: Enquiry Officer is the person/committee appointed by the disciplinary authority to enquire into the charges leveled against an employee of the Institution.

1.5 POWER TO IMPLEMENT AND TO AMEND THE RULES:

The power to implement or to amend the rules and regulations vests with the Managing Trustee/Chairman, which is empowered to issue such administrative instructions or orders as may be necessary to give effect and to carry out the provisions of these rules and regulations. The Managing Trustee/Chairman shall have absolute right, liberty and powers to withdraw, modify, amend, alter and to repeal or to supersede at its sole discretion any or all the rules contained herein or any rules and regulations framed and enforced by it from time to *time.*

1.6 MANAGEMENT'S POWERS TO DELEGATE:

The Managing Trustee/Chairman may authorize to any officer or officers of the institution, any or all its functions, wholly or partly, permanently or temporarily, and such officer or officers shall be the Management for the purpose of interpretation of these rules to the extent and for the duration of the period as may be authorized.

1.7 APPOINTMENTS, PROBATION & TERMINATION OF SERVICE:

1.7.1CLASSIFICATION OF EMPLOYEES:

The employees will be classified as follows:

i) Teaching Staff

ii) Non-Teaching staff including administrative, supporting technical staff and non-technical employees.

They are further classified as:

a) Regular employee: means the qualified person employed in a regular post and has successfully completed the probation for a period of two years and whose regular service has been confirmed in writing.

b) Probationary employee: is a person who is provisionally employed with a view to being considered for eventual absorption in the regular service of the Institution. The period of probation, however, will be stipulated in the letter of appointment, which may be extended at the discretion of the Management. Further, before absorption of the concerned, it is considered essential that the performance of the probationer is objectively judged and evaluated in prescribed format by the HOD or Principal, who recommends his/her service to confirm/extend probation or even for termination, if found not suitable.

c) Temporary/Adhoc appointees: means employees who are employed for work which is essentially of temporary nature or who are employed in connection with the temporary increase in permanent work or are employed in a post of permanent or temporary employee or probationer who are temporarily absent due to any reason, including one permitted by the Institution to go on advanced studies.

1.8i) The Management shall fix the number of posts in INSTITUTION in all categories from time to time and also prescribe qualifications, mode of recruitment, and the scales of pay etc., to each category of posts, which may be reviewed and revised by the Management from time to time, depending upon the exigencies. The pay scales of the Teaching Staff are covered under AICTE scales. Hence, their payments will be fixed in the appropriate grades and scales depending upon qualifications, experience, exposure and merit etc., as applicable and as amended from time to time, except the staff recruited temporarily or on adhoc basis or on consolidated pay.

ii) Notwithstanding anything contained in these rules and regulations, the Management may employ persons on a temporary/adhoc basis or on contract basis to different posts in the organization under their control on consolidated pay or on daily wages, wherever the necessity and circumstances so warrant.

1.9 AGE:

The age of a person at the time of his/her first appointment in the Institution shall be at the discretion of the Management.

In case of Teaching Staff, other than the staff covered under the AICTE scales of pay, the Management may take decision basing on the qualification, experience etc. about the age of the person employed to the posts.

1.10 JOINING FORMALITIES:

At the time of joining, the new recruit would have to furnish the following to the Administrative office.

. Joining Report

. Proof of Date of Birth

. Original Certificates supporting qualification/experience for verification with copies to be furnished.

. Two passport size photographs

. Names and addresses of two persons for contacting in case of any emergency.

1.11 COMMENCEMENT OF SERVICES:

Except as otherwise provided by or under these regulations, service of an employee shall be deemed to commence from the working day on which the employee reports to duty in an appointment covered by these regulations at the place and time intimated to him/her by the Management, provided he/she reports in the forenoon; otherwise, his/her service shall commence from the following day. In the case of a batch of persons appointed as per the recommendation of a duly constituted selection committee, the seniority of persons will be as per the merit order in the proceedings of the selection committee.

1.12 PROBATION:

Employees who are appointed to the posts in the Institution under the control of the Management directly on a regular basis shall be required to be on probation for a period of two years and in case of employees on promotion/transfer appointed to higher posts shall be for a period of one year.

The probationary period shall stand automatically extended until confirmation orders or otherwise re issued in writing by the Management. The services of an employee on probation may be terminated either by giving one month's notice to the other party or one month' salary in lieu thereof.

1.13 RESIGNATION AND TERMINATION:

a) If an employee at any time after confirmation intends to resign, he/she shall give three months' notice in writing or pay three months' salary in lieu thereof. Similarly, the Management shall be competent at their discretion to terminate the services of any employee by giving three months' notice or three months' salary in lieu of notice.

b) The Management shall also be competent to terminate the services of an employee in case of abolition of post or posts, due to closure of the course or reduction in the number of sections of a class or discontinuance of a teaching subject by giving three months' notice in writing or by paying three months' salary in lieu thereof.

c) The Management shall also be competent to terminate the services of an employee who is incapacitated to discharge his/her official duties by giving three months' notice or paying salary in lieu of notice.

d) The Management shall also be competent to terminate the services of an employee for misconduct in discharge of his/her official duty without paying any salary.

1.14 RETIREMENT:

Every employee shall retire from service on attaining the age of superannuation, i.e., 65 years in case of teaching staff and 58 years of age in case of non-teaching staff. Provided that the

Management, in the interest of the Institution may extend the period of services of the employee concerned by such period as determined depending on the mental and physical condition of such an employee.

The employees in all categories of posts shall retire from services after attaining the age of superannuation w.e.f. the afternoon of the last day of the month in which their date of retirement falls.

The following guidelines may be laid down for seeking reemployment in the Institution after attaining the age of superannuation:

a) Whenever a regular teaching employee is going to attain 65 years and in case of a non-teaching employee, 58 years, the date of superannuation of such employee may be noticed three months in advance, after obtaining orders of the Managing Trustee/Chairman.
b) If such an employee desires to serve the Institution after superannuation, he/she may apply, in writing, to the Principal to continue him/her in the service.
c) On receipt of such an application, the Head of the Department concerned may be asked to offer his/her remarks on the mental and physical condition of the employee and whether there is a need to continue him/her in service, duly indicating the work load to be assigned to such an employee.
d) The Principal may offer his remarks and make his specific recommendation on the necessity and desirability or otherwise of continuing such an employee and indicating the terms and conditions of his/her re-appointment such as:

i) Tenure of appointment

ii) Consolidated salary to be paid per month. To arrive at the consolidated salary to be paid, the last pay drawn by the employee may be taken into account, which may be rounded off to the next hundred.

iii) Such employees are not entitled for any other leave except casual leave, unless specially permitted by the Management in specific cases.

1.15 WORKING HOURS *I* HOLIDAYS *I* VACATION: The working timings of the employees are determined and notified by the Institution from time to time, based on the work *I* service requirements, fulfillment of Institution's obligation to students and such other expediencies. The Institution will observe National *I* Festival holidays as may be notified from time to time. Employees notified will be available for work on said holidays and those working on the holidays will be granted compensatory off (as per the convenience of the Institution).

The Institution will also observe vacation which will be notified from time to time.

1.16 ATTENDANCE AND PUNCTUALITY: Each employee in the Institution has an important role in ensuring smooth and efficient handling of classroom and maintenance of discipline as well required for the smooth functioning of the Institution. They are, therefore, expected to be at their respective allotted places on time on each working day. Employees are expected to be present for duty on all working days, except on the days of authorized leave.

1.17 PERSONAL RECORDS: The employee records are kept within the Administrative Department, which are used within the Institution only for bonafide reasons. As a policy, Administrative Department ensures that the relevant employment-related information is maintained in strict confidence. Employee-related information is given to outsiders only if the Institution is satisfied with the validity of the request, or if it is required by law, or if the employee himself has requested that information to be supplied for reference purposes.

1.18 APPRAISALS: There will be a system of annual performance appraisal of Institution's employees on a regular basis. The main objective of this scheme is to evaluate the performance of an employee systematically, so that at any point of time, it is possible to assess his/her capabilities without being required to oral enquiries in different quarters. Obviously, the performance appraisal report will have an important bearing on the:

a)Promotion as well as sanction of increments

b)Confirmation of service.

c) In respect of Ad hoc appointees, for taking them to regular rolls.

d)Self-appraisal to appraise one's own on their goals/targets gives an opportunity to explain what he/she has done and factors that helped and / or hindered his/her performance.

Regarding the probationers, this report is a must to confirm his/her services; hence periodical appraisal will be done and deficiencies will be brought to his/her notice for necessary rectification.

1.19 DISCIPLINE:

a) Every employee is expected to maintain a certain standard of discipline as envisaged by the Institution's policies in force from time to time, failing which, he/she renders himself liable for such action as may be taken against him/her. Every employee shall take all possible steps as may be required of him/her to ensure and to protect the interests of the Institution and perform his/her duties with utmost integrity, honesty, devotion and diligence.

b) Every employee shall show courtesy in his/her interactions with other employees, students, parents of the students, suppliers and others having dealings with the Institution.

c) Every employee shall strive to develop and impart such an education to the students of the Institution to develop expertise in their respective fields and to groom them to be adaptable to any environment requiring leadership qualities, positive attitudes, loyalty and integrity towards the organization wherever they are going to be employed.

1.20 LIABILITY TO ABIDE BY THE RULES AND REGULATIONS:

Every employee shall conform to and abide by such rules and shall observe, comply with and obey all orders and directions issued by the Management from time to time, with utmost endeavour to promote the interest of the organization wherein he/she is working by showing courtesy and attention in all transactions.

1.21 EMPLOYEE'S APPLICATION FOR OTHER EMPLOYMENT:

a) No employee shall apply for other employment or signify his/her willingness to accept such

employment or office, whether stipendiary or honorary or otherwise without the prior written permission of the Management.

b) No employee, whether on leave or in active service of the Institution shall undertake a part time job, which is likely to embarrass or influence him/her in discharge of his/her official duties, for any consideration of cash or kind. However. an employee, with the written permission of the Management, may undertake honorary work of a social or charitable nature or occasional work of a literary. artistic or scientific character, subject to the condition that such work does not interfere with his/her official duties.

1.22 OBLIGATION TO MAINTAIN SECRECY: Every employee shall maintain secrecy in regard to the affairs of the Institution and shall not divulge directly any information of a confidential nature, either to a member of the public or of the Institution staff, unless compelled to do so by judicial or other legal authority or unless instructed to do so by the Management.

1.23 ABSENCE FROM DUTY WITHOUT PRIOR PERMISSION: An employee shall not absent himself / herself from his/her duties without first obtaining the permission of the competent authority. In case of unavoidable circumstances, a message or a letter should be sent on the next working day, giving the reasons of his/her absence for the previous days. If the employee absents himself continuously for a period of 10 working days or more without any leave letter or communication, the employee shall be deemed to have deserted the post held by him/her from the date on which he/she abstained from duty.

1.24 PENALTIES:

1.24.1 Minor penalty

1. Censure
2. Fine (may be imposed on the employees who are below the cadre)
3. Recovery from the salary, whole or any part of any loss caused to the Institution by negligence or breach of orders.
4. Withholding of increments
5. Suspension.

1.24.2 Major Penalties:

1. Reduction in rank
2. Reduction in pay
3. Removal/Dismissal from service

1.25 PROCEDURE FOR IMPOSING PENALTY:

No order imposing a major penalty shall be passed except after an enquiry is held as far as possible in the manner specified below.

In case of minor penalties, a show cause notice may be issued calling for his/her explanation. After submission of explanation, a decision may be taken for imposing the punishment mentioned therein.

a) The disciplinary authority shall itself hold an enquiry either suo motto or on a direction from a

higher authority and frame definite charges on the basis of allegations on which the enquiry is proposed to be held and a copy of the charge together with the statement of the allegations on which they are based shall be furnished to the employee.

b) The employee, after receipt of the above memo, shall submit his/her written explanation in defense within the time limit as specified in the charge memo.

c) On receipt of the written explanation or where no written statement is received within the specified time. the disciplinary authority may appoint an enquiry officer to enquire into the charges.

d) The enquiry officer shall give all reasonable opportunity in conformity with Natural Justice to the delinquent employee to defend his/her case and after conclusion of the enquiry, shall prepare a report on the findings on each of the charges, together with the reasons and submit the report to the disciplinary authority.

e) The disciplinary authority after examining the report received from the enquiry officer, shall give notice to the concerned delinquent employee, duly indicating the tentative decision proposed to be taken against him/her and calling upon to submit his/her representation, if any. in this regard with in the specified time thereon against the proposed action.

f) The disciplinary authority after examining the representation received from the delinquent employee or otherwise, shall decide the penalty to be imposed and issue orders accordingly.

g) If the employee is aggrieved with the penalty imposed upon, he/she may prefer an appeal with the appellette authority within 30 days of the receipt of the orders of punishment.

h) The appellate authority causing such enquiry as it deems fit and necessary, may pass orders either dismissing the appeal or allowing in full or part or modifying the punishment awarded.

i) The orders so passed by the appellate authority shall be final and binding on the delinquent employee as well as on the disciplinary authority.

1.26 EMPLOYEES PROVIDENT FUND SCHEME:

All eligible employees of the Institution are entitled for Employees' Provident Fund Scheme.

1.27 APPLICABILITY OF RULES:

a) All employees are automatically governed by the code of conduct or other rules that may be framed from time to time. Any violation thereof shall attract disciplinary action.

b) All employees of the Institution shall be governed by the leave rules and T.A. rules that are framed separately.

c) The decision of the Management of the Institution regarding the interpretation of these rules and on any other point, which is not covered under these rules, shall be final and binding on the employees.

1.28 GRIEVANCES HANDLING PROCEDURE:

Employees may have grievances, real or imaginary, which if not heard and resolved expeditiously, may lead to frustration and discontentment, affecting moral and Institution's interests. Hence, in order

to maintain harmonious relations between the employees/staff and the Management of the Institution, it has been decided to formulate the following "Grievance Handling Procedure" in the Institution.

Scope: This procedure deals with:

a) The complaints that can be covered under 'Grievance';

b) The constitution of Grievance Committee

c) The two-tier system for Grievance Handling, and

d) The method of dealing with grievances.

Definition of 'Grievance': 'Grievance' would mean complaint affecting individual employee in respect of his/her wage, facilities, injustice, leave, transfer, extension, promotion, seniority and working conditions being meted out to him/her.

If the grievance is of general ability or of collective nature, it would fall outside the scope of this procedure. However, collective grievances of routine nature may be admitted at the discretion of Principal.

2. LEAVE RULES

The Leave Rules shall apply to

a) All Regular employees of the Institution
b) Probationers

2.1 Kinds of leave: The following kinds of leave may be granted to an employee:

a) Casual leave
b) Leave on medical ground
c) Maternity leave
d) Extraordinary leave
e) Vacation leave

2.2 CASUAL LEAVE:

a) Employee shall be eligible for casual leave for a period of 12 days in a calendar year and they will be entitled to casual leave on pro-rata basis.
b) The unavailed casual leave during the year lapses at the end of year.
c) Not more than 7 days' leave may be availed at a time. Leave shall not be prefixed or suffixed to any other kind of leave.
d) Casual leave for half day can be granted to an employee for the Forenoon or Afternoon session
e) In normal circumstances, casual leave requires advance sanction. The employee has to make alternate arrangements for his / her class work

2.3 Leave on Medical grounds / Half pay leave (Teaching Staff):

All employees who have completed two years of service are eligible for 20 days of half-pay leave per calendar

year on Medical ground, commutable to 10 days of leave with full pay.

i) In case of employees whose service is less than two years, they are eligible for 10 days of half-pay leave in a year on Medical ground, commutable to 5 days of leave with full pay.

ii) Service less than one year entails no half-pay leave benefit.

iii) The employee has to submit Medical Certificate, if he avails more than 5 days at a time.

iv) Half-pay leave/full pay leave can be clubbed with earned leave or vacation leave or any other leave.

However, the management reserves the right to sanction medical leave beyond the above limit to the extent necessary with full pay or half pay, in genuine and deserving cases.

2.4 Maternity leave:

Maternity leave may be granted to married female permanent employees. who have completed two years of service. For a period of not exceeding 3 months at a time during her confinement (both pre-natal and post-natal periods put together) and only for one occasion in the entire period of her service in the Institution. The payment for the maternity leave will be full pay.

2.5Extraordinary leave (For Teaching Staff):

i) Extraordinary leave may be granted to an employee where no other leave is admissible to him at the discretion of the Management for a period not exceeding one year at a time. Extension of such leave may be granted from time to time subject to the maximum one year at a stretch.

ii) Such extraordinary leave may be granted to an employee who has put in minimum service of at least 2 years.

iii) No pay and allowances will be paid during the period of extraordinary leave, and the period spent on such leave shall not be counted for increment and also the service will not qualify for the purpose of any other benefits.

iv) The Management may consider giving increments to the candidate if he/she is availing extraordinary leave without pay for further studies and if he/she earns the relevant degree for which he was granted extraordinary leave.

2.6 Special casual leave (For Teaching Staff):

a) If the AICTE regulations stipulate such leaves for the Teaching staff, such leaves may be considered on selective basis for acquiring latest techniques in teaching as well as in their subject and also going for invigilation, paper correction etc. purposes.

b) In the event the lecturer is invited to give special lectures by other institutions or invited to attend to valuation work by the Anna University, he/she may be given special leave of 16 days in a calendar year.

2.6.1 Marriage Leave (both for teaching and non – teaching staff)

Special casual leave not exceeding seven days may be granted for an employee who has completed probation**.**

2.7 Compensatory leave (both for teaching and non – teaching staff)

At the discretion of the Head of the Institution, an employee may be granted compensatory leave for the holidays and Sundays on which they have been specially put on duty, provided such compensatory leave is availed within one month on which he has worked on holidays/Sundays.

2.8 Vacation Leave (VL) for teaching staff:

2.8.1 These rules govern the availing of vacation leave for each semester. The maximum duration and number of days shall be decided by the Principal/Designated Authority.

2.8.2 Vacation leave (VL) is applicable to only the member of the faculty (Teaching staff) with eligible service

2.8.3 The total number of VL days for members of faculty (teaching staff) is limited to 45 (Forty five) for a continuous service of 12 months in the Institution.

2.8.4 These 45 days can be availed for a maximum of 15 days in the winter vacation months of November or December. The balance 30 days can be availed in the summer vacation period in the months of May, June or July.

2.8.5 However, the vacation leave shall be availed as per the circular issued then & there in this regard, indicating the slots in the period identified for winter or summer vacation, to ensure smooth function of the institution.

2.8.6 A staff member becomes eligible for VL only after rendering a continuous service of one full academic year as on 31st May (ie) from 1st July of a calendar year to 30th June of the following academic year.

2.8.7 However, in special/deserving cases, VL can be sanctioned after 6 (six) months of continuous service including the following vacation period, on pro rata basis. In such cases, staff members are required to serve the institution for a further period of six months or one semester, so that total service of one year can be obtained.

2.8.8 In case a staff member, after availing VL as per clause 2.8.7 does not complete the full terms of 6 months or one semester, the leave availed will be treated as leave on loss of pay (LOP) and proportionate salary will be deducted from any payment due to him/her or will be recovered from the said staff member.

2.8.9 If any staff member is prevented from availing VL in the interest of the college by the order of the Principal/Designated authority, compensation at the rate of 1:2 (ie) one day's pay for every two days of eligible vacation leave shall be considered. Such consideration rests solely at the discretion of the Principal/Designated authority.

2.8.10 Any unused part of VL cannot be carried over to the next academic year & will stand automatically lapsed.

2.8.11 Under no circumstances, leave of any kind including Extradinaryleave availed by a staff member, will be adjusted against vacation leave.

2.8.12 While calculating the number of days of vacation leave, all intervening declared holidays & Sundays will be included.

2. 9<u>In respect of Non-teaching Staff, the leave eligibility is given as under</u>:

a. **Casual leave** eligibility will be 12 days per Annum for all the regular and confirmed employees on pro rata basis.

b. **Sick leave / leave on Medical Ground'** may be sanctioned up to 10 days per Annum on pro rata basis.

c. **Earned leave:** The regular employees, after completion of their probationary period, will be entitled for 15 days per annum, provided he puts in a minimum of 240 working days in the year. They are not entitled to vacation, other than the aforesaid kind, and number of leaves. The general conditions of leave regulations are common for all the categories of employees, except for entitlement and number of leaves.

2. 10 <u>General conditions governing the grant of leave</u>: The following regulations shall govern the grant of leave to an employee:

a) Leave of any kind cannot be claimed as a matter of right and may or may not be sanctioned as per discretion of the Management. When the exigencies of service so require, the competent authority may, at its discretion, refuse leave or revoke the leave of any description already granted or recall an employee from leave, except when the leave is applied for or availed on medical grounds and a certificate to that effect is produced to express inability to join back for duty.

   Ordinarily, leave should be applied in advance with alternate arrangements made for the class work etc.,

b) Leave applied for shall not be availed unless it has been specifically sanctioned, except where it is applied on the strength of medical checkup or under unforeseen circumstances to be specified in the leave application. However, intimation has to be given in advance to Principal or Head concerned (even on Medical grounds) for necessary arrangement.

c) Absence without leave, whether it is in continuation of sanctioned leave or otherwise, entails forfeiture of his right to the service, unless otherwise ordered by the competent authority. Leave can be prefixed or suffixed to a holiday.

d) Leave ordinarily commences on the day succeeding the day on which employee is relieved and ends on the preceding day on which he returns to his/her duty.

e) Every employee shall furnish leave address while proceeding on leave and shall keep the institution informed of any subsequent change in the address.

f) An employee on leave cannot attend the duty before the expiry of the period of leave granted to him, unless so permitted or required by the competent authority.

g) During the leave period, an employee shall not engage himself/herself in any private business or private employment.

h) Intervening holidays/rest days during the period of leave shall be treated as leave, except

casual leave.

i) However absences without leave or over – staying the sanctioned leave for more than ten consecutive days without sufficient grounds or proper / satisfactory explanation shall not be allowed.

2.11 Sanctioning authority:

The Principal is competent to sanction all the leaves to the employees working in the Institution except Extraordinary leave, in which case, the Managing Trustee/Chairman is the competent authority to sanction such leave.

The Managing Trustee/Chairman of the Institution is the competent authority to sanction all the leaves to the Principal.

3. CODE OF CONDUCT FOR EMPLOYEES

3.1 PREAMBLE:

a) The Principal objective of the AAMEC is to disseminate knowledge and impart instruction to its students in different disciplines broadly classified as Technical Education. The college also aims at promoting Research and Development, consultation and such other professional activities.

b) AAMEC being an affiliated college, depends on Anna University, Chennai for the conduct of examinations, design of course curriculum, almanac, recruitment of teachers and various other activities. .

c) AAMEC is one the several Engineering colleges affiliated to Anna University. As such, if the normal work in the college is disturbed for some reason or the other, this college alone has to suffer the consequences. This has to be borne in mind by all the employees of the college namely the teaching staff, supporting staff, ministerial staff and others.

d) Norms of conduct widely accepted in practice in academic institutions are given below for the guidance and strict adherence of the employees of AAMEC This document shall be referred to as "CODE OF CONDUCT for the employees of AAMEC.

3.2 CODE OF CONDUCT:

The employees, in the discharge of their duties and in their interactions and dealings with public, Government officials, students and their parents etc., shall conduct themselves in a manner that enhances the prestige and image of the Institution and shall not do anything which impairs or tarnishes the image. Employees shall deal on behalf of the Institution with professional honesty, integrity and the moral and ethical standards shall be fair, transparent and be perceived as such by others. Employees shall not engage themselves in any business activity or service relationship, which

may detrimentally conflict with the interests of the Institution.

i) (a) All the staff must note that delivering lectures and conducting laboratory, drawing tutorial classes as per the approved schemes of instruction and almanac, and uniform coverage of syllabus in the prescribed time are their main duties which are considered sacrosanct. Failure to conduct the classes according to the scheduled timetable without prior information or alternate arrangements shall be considered as a serious dereliction of duty. Every lecturer/employee must at all times do justice to the students in thought, word and deed. Nothing should be done which adversely affects the programme of instruction, examination and assessment of students.

(b) Every college employee shall at all times maintain absolute integrity and devotion to duty and shall do nothing against the dignity and prestige of the college, particularly in his relationships with the students. The Principal shall decide cases of infringement of this rule.

EXPLANATION:

In this rule or in any other rule in this document where the Principal or the Management is vested with the power of deciding an issue, such power shall be exercised after giving the employee concerned a reasonable opportunity to explain his case

ii) Conduct of University Examinations and Internal Examinations of the College, including invigilation, evaluation and assessment of the students form part of the duties of teachers. The non-teaching staff shall assist in the arrangements for the smooth conduct of examinations: they shall attend to all connected work - as may be assigned by the persons in charge of such activities.

iii.) (a) All employees shall be punctual to their duties and shall strictly adhere to the college timings.

(b) The supporting staff in the various laboratories shall be punctual, shall keep the laboratories open in a clean and presentable form for the use of the students and teaching staff during the normal working hours of the college. The non-teaching staff should assist the teachers and students in all the academic works. They shall strive hard to ensure that there will be no room for complaint either from the teachers or from the students.

(c) All the employees shall strictly obey the instructions and circulars issued by the authorities from time to time

iv.) (a) Behavior towards superiors: No employee should use disrespectful language while speaking to superiors. They should give due respect to their superiors for their position, rank, Qualifications and knowledge.

(b) The teaching staff, supporting staff, ministerial staff and other employees has to strictly obey their superiors under whose control they are deployed to work.

(c) The Heads of Departments and persons in-charge of various administrative units are also expected to give clear, feasible instructions to the staff under their control.

(d) No employee should indulge in any derogatory loose talk against his or her colleagues, superiors, subordinates, students or members of management.

v.) Employees should not resort to any agitation, which disrupts the normal work in the college. Every

employee shall strive to the best of his ability to ensure that the College is not subjected to embarrassing situations in so far as compliance with the academic almanac is concerned. Protests, if any, may be lodged by submitting suitable representations to the Grievance Committee, and such other decent means. Such acts should, in no case impair the progress of the students.

vi.) (a) It is important to note that the Management/Administration reposes trust in the employees of the College in the smooth functioning of classes and labs and all the work connected with the college and the University, No employee is expected to undertake any outside job.

b. Violation will be treated as breach of trust and will be dealt as such.

c. Inciting colleagues, fomenting unrest in the college campus, or any other activity, which pollutes the academic atmosphere in the college campus or undermines the prestige of the Management, shall constitute breach of trust and shall be dealt with under "Service Conditions" for appropriate punishment.

vii.) The teachers are expected to deal kindly with the students as far as possible, within the framework of rules and without sacrificing discipline. They are expected to maintain attendance records up to date and report periodically as per the rules in force.

viii.). Any action on the part of any employee, whether teachers or Supporting staff members or members of the ministerial staff or other employees, which results in obstruction in the normal work and/or puts the administration/management in an embarrassing situation or causes tarnishing of the image of the college in the *eyes* of the University or general public, shall be seriously dealt with. The punishment may vary from withholding increments to removal from service depending on the gravity of such action committed by the employee.

ix.) Instigating students to resort to any kind of agitation or to revolt against the administration/management of the college shall be viewed as subversive activities and the employees indulging in such activities shall attract disciplinary proceedings against and shall be seriously dealt with. The punishment may vary from withholding increments to removal from service depending on the gravity of such action committed by the employee.

a) Demonstration of 'loyalty to the College' by putting in sincere diligent ungrudging work, assisting the administration/management to tide over any difficult situations that may arise from time to time, by putting in extra hours of work when needed by extending sincere cooperation to the administration of the College; attracts commendation from' the college authorities.

b) Employees of the College, if invited, shall attend all the College Functions, Seminars & Meetings.

x.) Excellent Teachers shall be recognized and honored as such, based on objective norms and demonstrated skills.

xi.) Such of those teachers who exhibit initiative and drive by getting substantial grants for R&D work or for strengthening the infrastructure in the college will receive special commendations.

xii.) (a) **Tuition:** No College teacher shall engage himself in coaching privately any student for any remuneration.

(b) **Private employment or work not connected with the College:** No College employee shall, undertake any employment or accept any remunerative or honorary work or Consultancy not connected with the college.

xiv.) (a) **Gifts:** No College employee shall himself accept or permit any member of his family to accept from any person any gift which places him in any form of official obligation.

(b) **Subscriptions:** No College employee shall, without obtaining the previous sanction of the Principal, ask for or accept or in any way participate in the raising of any subscription or other pecuniary assistance in pursuance of any object whatsoever.

xv.) (**a**) **Communication of official Documents or Information :**

It shall be the duty of every one of the employees to honor the confidence reposed in him by the College and not to divulge any information obtained by him in the course of his official duties to any unauthorized person or to make any improper use thereof. An employee connected with examination work is specially required to be very cautious in the observance of this rule and should not under any circumstances divulge any information that passes through his hands in the discharge of his duties, to unauthorized persons.

(b) Discussion of Policy of Action of the College:

College employees shall not either in any document published by them or in any communication made by them, to the Press or in any Public utterance made by them, indulge in any public criticism of the college administration in such manner as is likely to undermine the dignity of the college employee and causes or is likely to cause embarrassment to the administration in its relations with its staff or the students of the College or the University or the Government or any other agency.

xvi.)Vindication of acts and character of the College Employees as such:

A College employee or any staff association shall not have recourse to the press under any circumstances. They shall not also approach any Court for redressal of grievances without first representing to the management.

4. RESPONSIBILITIES OF THE EMPLOYEES

4.1.Responsibilities of the Principal:

i) The Principal shall be the head of the institution.

ii) Plan the establishment of various departments and the various administrative units of the college.

iii) Coordinate various activities connected with admissions, teaching, conduct of examinations, collection of fees, publishing course files and manuals.

iv) To identify and recruit suitable persons to man the various departments and administrative units.

v) Development of various laboratories, Computer Centre, library and all organs required for an educational institution.

vi) To maintain cordial relationship with the university authorities, Directorate of technical

education, AICTE and such other policy making bodies .

vii.)a) To maintain healthy relationship with the management and conduct meetings of the Governing Council and Management Committee as and when necessary.

b) Prepare the minutes of meetings.

c) Prepare the budget for approval of management.

d) Regularly apprise the management about the various activities.

viii) To plan functions like Graduation Day, Annual Day, Freshers Day, Hostel Day, Merit Awards.

ix.) To give leadership for organizing seminars, symposia, short-term schools and plan Faculty Improvement Programmes.

x.) In a nutshell, the Principal shall be responsible to project a powerful image of the college in the eyes of the authorities of universities. AICTE, Government, Parents, Industries & R & D Establishments and the general public.

4.2. <u>Responsibilities of Heads of Departments:</u>

i.) (a) Administer the department in respect of regularity, punctuality, distribution of teaching work and

laboratory work among the staff and ensure completion of syllabus as per the almanac in time.

(b) Maintain vacation duty statement, CCL account for the staff of the department.

(c) Maintain the relevant topic-wise files and ensure "place for everything and everything in its place".

(d) The HOD should be well informed about the activities and programmes of other professional colleges and institutions. HOD should keep good contacts with the faculty of IITs, Universities and other Colleges in the state.

(e) Preparation of class-wise timetables.

(f) Ensure compilation of students' attendance and sessional marks as and when required during Semester/Academic Year and maintain the relevant files and records for future reference.

ii.) Coordinate the work in connection with the preparation of course files, laboratory manuals and such other documents and updating them from time to time.

iii.)(a) Development of various laboratories and arrange for regular maintenance, updating the laboratories by

procuring the equipment required to perform experiments listed in the syllabus book.

(b) Maintain laboratory-wise stock registers one for capital equipments and the other for components &

spares.

(c) Procure spares and components and stock them and maintain inventory laboratory-wise.

iv.)(a) Coordinate the activities of Technical Associations, ISTE, IETE, IEEE and such other professional

associations.

b) Organizing special lectures by experts, technical staff, seminars & conferences and refresher

courses.

v.)(a) Encourage the faculty and staff to improve their academic qualifications without effecting normal

Curriculum.

(b) Encourage students to develop communication skills, report writing, debating and group discussions

etc.

vi.). **(a)** Maintaining cordial relations with local industries and also develop contacts in general with industry

and R & D organizations in the country.

(b) Extend all possible help to the students of the department for training / project work / professional employment. .

(c) Efforts are to be put in to enhance the computing skills of the students of the department and organize

bridge courses to make up deficiencies.

4.3. RESPONSIBILITIES OF TEACHING STAFF:

4.3.1. Academic Responsibilities:

- **i)** Class Room Instruction & Laboratory Instruction of high quality in line with the syllabus prescribed by Anna University and relevant advanced topics beyond syllabus.
- **ii)** To develop curriculum, learning resource materials and Laboratories.
- **iii)** To actively participate co-curricular and extra – curricular activities of the college and those organized by other institutions.
- **iv)** Excellent guidance and counseling to promote their personal, ethical, moral and overall character.
- **v)** To keep abreast of new knowledge and skills, help generate new knowledge and dissemination of such knowledge through publication of papers, books and seminars etc.
- **vi)** Self-development through up-gradation of qualification and participation in professional activities.

4.3.2. Administration:

- **i)** To participate actively in academic and administrative management of the institution and also in policy making.
- **ii)** Planning, monitoring and evaluation and promotional activities at department and institutional level.
- **iii)** To design and develop new Programmes of high quality.
- **iv)** To prepare project proposals for funding in vital areas of R & D.
- **v)** Laboratory Development and Modernization.
- **vi)** To participate in administration related activity both at departmental and institutional levels.

vii) To monitor and evaluate academic and research activities.

viii) To participate in policy planning at the Regional / National level for development of Technical Education.

ix) To help mobilization of resources for the institution.

x) To plan and implement staff development activities.

xi) To maintain accountancy and to conduct performance appraisal.

4.3.3. <u>Research & Consultancy:</u>

i) To actively involved in Research and Development Activities, Research guidance and Industries sponsored research.

ii) To provide consultancy and testing services by providing extension services and participating in community services.

iii) To provide non-formal modes of education for benefit of community and dissemination in community services.

iv) To promote the spirit of entrepreneurship with an aim at creation of jobs.

v) And any other relevant work assigned by the head of the institution.

4.4. ETHICAL STANDARDS FOR TEACHERS

A Teacher

- Shall live and lead by example in every sphere of conduct particularly to inculcate a noble culture in students.
- Respect parents, teachers, and elders.
- Express the love of brotherhood to fellow students.
- Accept and extend due respect to every religion and social grouping.
- Love the nation and commit their endeavors for progress.
- Have a sense of belonging to the institution.
- Assume total dedication to the teaching profession.
- Always have an urge to excel in professional expertise.

A Teacher

- Shall wear respectable attire, befitting the society's expectations shall keep up immaculate personal hygiene at all times.
- Shall never appear untidy, through style of dressing, grooming of hair or in respect of any other ornament one wears.
- Shall never have the habit of chewing,, smoking or consumption of alcoholic drinks.
- Shall never gossip or discuss unauthentic information with peers or other members of public which might provoke a sensation or ill feeling or any sort.

- Shall always listen to students with concern, whether it be in respect of doubts in lessons or it be relating to any personal help.
- Shall always motivate the students, giving them a feeling of comfort and encouraging their enthusiastic expressions.
- Shall attend to parents as a true representative of the institution, clarify their doubts with concern and help them understanding the system in a better manner.
- Shall confer with them on any special problem pertaining to their wards; assist them in solving the problem and guiding them properly on how and who to approach for further help.
- Shall always give the parents authentic and correct information and never enter into any form of gossiping either relating to the schools or of fellow teachers, student or any other member of society.
- Shall always accept the entire fellow teachers, honor their sentiments and respect their value system.
- Shall always endeavor to assist fellow teachers, either in their teaching practice or in any form of adjustment required for discharging their responsibilities.

4.5. Faculty (Professors/Associate Professors/ Assistant Professors):

Besides teaching, all the teachers or the faculty are requested to spend their time and effort for various activities and contribute to the fair image of the college. They have to necessarily cooperate in students counseling, give support to the administration and involve themselves in R&D/Consultancy and extension services AICTE norm stipulates that every teacher of the college has to contribute 35 clock hours of work per week. A tentative distribution of the time spent in a week for Professors, Associate Professors and Assistant Professors is given below, which may be considered as a guideline, but not a rigid frame work. The Heads of Departments are required to spend more time in planning, streamlining and structuring the various activities at every level in their concerned department/unit.

Tentative distribution of time to be spared by a faculty member for different activities in a week

Item	Teaching Pleasure		Preparation, Paper setting & valuation	Student Counseling	Admin	Project Guidence/ R & D / Consultancy &Extensin Service	Total Clock Hours
Category	Clock hours	Periods					
Professors	8	10	6	3	13	5	35
Associate Professors	12	14	13	3	3	4	35
Assistant Professors	16	19 – 20	15	2	1	1	35

For the above stipulation, two tutorial hours/ two laboratory / Drawing hours will be counted as one

teaching hour. The work plan of teachers shall ensure, in the most productive manner, the utilization of stipulated 35 working hours per week, with regard to the roles, jobs and targets assigned to them by the department/ institution.

Non – Teaching Staff**:**

Thirty five (35) hours per week as assigned by the Principal/ Head of the Department Officer/ Teacher-in-charge of the concerned section/lab/unit.

4.6 DEPARTMENT

4.6.1 The Faculty Member should always first talk to the HOD and keep the HOD in confidence about the member's professional and personal activities.

4.6.2 The teaching load will be allotted by the HOD after taking into account of the Faculty Member's interests.

4.6.3 In addition to the teaching, the Faculty Member should take additional responsibilities as assigned by HOD / Principal in academic, co-curricular or extra-curricular activities.

4.6.4 Every Faculty Member must give seminar on some topic at least once in each semester to other faculty.

4.6.5 Every Faculty member should maintain student's attendance records and the absentees roll number should be noted every day in the Master attendance Register maintained in the Department as soon as the classes/laboratory hours are over.

4.6.6 Whenever a Faculty Member intends to take leave, the Faculty Member should get the leave sanctioned in advance and with proper alternate arrangements made for class / lab/ invigilation. In case of emergency, the HOD or the next senior faculty must be informed with appropriate alternate arrangements suggested.

4.6.7 The Faculty Member should make himself / herself presentable. The Faculty Member should show no partiality to any segment / individual student.

4.6.8 The Faculty Advisor must update the student's personal file regularly and put up for inspection by HOD/Principal as the case may be.

4.7 CLASS ROOM TEACHING

4.7.1 Once the subject is allotted, the Faculty Member should prepare the lecture hour wise lesson plan.

4.7.2 The Faculty Member should get the lesson plan and course file-approved by HOD and Principal.

The course file consists of preface, previous year university question papers, notes, handouts, power point slides, test/exam question papers, two model answer scripts for each test/exam, Assignments (if any),minute paper, feedback analysis report etc.,

4.7.3 The Faculty member's Diary must be regularly updated and put up for inspection by HOD/Principal as the case may be.

4.7.4 The Faculty Member should refer to more books than textbooks and prepare his/her detailed

lecture notes. These lecture notes are his/her aids. The Faculty Member should not dictate the notes in the class.

4.7.5 The Faculty Member should go to the class at least 5 minutes before and enter the class without delay when the bell rings.

4.7.6 The Faculty Member should engage the full 50 minutes and should not leave the class early.

4.7.7 The Faculty Member ideally should recapture for first 5 minutes the lessons of the last lecture, tell what is going to learn in another 2 minutes, then explain the lecture well up to 40 minutes and in the last 3 minutes conclude and say what we will see in the next class.

4.7.8 The Faculty member should cultivate to include humor in the lecture, to break the monotony.

4.7.9 Should practice / rehearse the lecture well before going to the class.

4.7.10 The Faculty Member should make use of PPT, NPTEL videos, online course materials, Models etc., as teaching aids.

4.7.11 The Faculty Member should encourage students asking doubts / questions.

4.7.12 The Faculty Member should get the feedback from students and act/adjust the teaching appropriately.

4.7.13 The Faculty Member should take care of academically backwards students and pay special attention to their needs in special classes.

4.7.14 In problem oriented subject, regular tutorials have to be conducted. The tutorial problems have to be handed over to the students at least in week in advance of actual class.

4.7.15 The Faculty member shall give possible 2-mark questions with answers for each unit.

4.7.16 The Faculty Member should sign in the class log book every day after he / she finishes the lecture.

4.7.17 The Faculty Member should interact with the class coordinator or counselor and inform him/her about the habitual absentees, academically backward student, objectionable behavior etc.

4.7.18 The Faculty Member should always aim for 100% pass results in his / her subjects and work accordingly.

4.7.19 The Faculty member should regularly visit library and read the latest journals/magazines in his/her specialty and keep oneself abreast of latest advancements.

4.7.20 The Faculty Member should make himself/herself available for doubt clearance.

4.7.21 The Faculty Member should motivate the students and bring out the creativity / originality in the students.

4.8 LABORATORY

4.8.1 The Faculty member going for laboratory class must perform the experiments personally and be satisfied with the results before asking the students to conduct the experiments.

4.8.2 Whenever possible, additional experiments to clarify or enlighten the students must be given.

4.8.3 The lab observations / records must be corrected then and there or at least by next class.

4.9 TEST / EXAM

4.9.1 While setting question paper, the Faculty member should also prepare the detailed answer and marking scheme and submit to HOD for approval.

4.9.2 During invigilation, the Faculty Member should be continuously moving around. He/she should not sit in a place for a prolonged time. He/She should watch closely so that nobody does any malpractice in the exam/test.

4.9.3 Whenever any malpractice is noticed, the Faculty Member should get a written statement from the student and inform the University Representative / Chief Superintendent. (Class coordinator and HOD concerned in the case of cycle test / Model Examination)

4.9.4 The test papers must be corrected within three days from the date of examination and marks submitted to the HOD for forwarding to the Principal with remarks.

4.9.5 The faculty members should be very fair and impartial in awarding of internal marks to students or in selecting the outstanding students of the department/college and on similar occasions, it should be done strictly as per the prescribed norms. It should not have any bearing with region, language, religion, caste, status of parents, personal relations, etc.

4.10 STUDENT – FACULTY RAPPORT

4.10.1 The Faculty Member should have a good control of students.

4.10.2 As soon as the Faculty Member enters the class, he/she should take attendance. If anybody enters late, the student may be permitted to attend the class but marked absent. In case of repeaters or habitual late-comers the teacher should try to correct the student through personal counseling and if it does not bring any change, the student must be directed to meet the class Coordinator, HOD.

4.10.3 The Faculty Member should act with tact and deal with insubordination by students maturely.

4.10.4 The Faculty Member should be strict but not harsh. Never use harsh words, which would hurt the feeling of the students.

5. PLANNING

5.1 Human Resource planning:

i) The Principal will obtain the information regarding the staff requirement from all the heads of the Departments and arrive at the number of faculty members required for the Departments. The Principal will consider appointing a Professor for heading the Department concern, besides the number of Associate Professors and Assistant Professors required by each Department in accordance with the teacher student ratio of 1:15.

ii) The Principal shall assess the staff requirement for the subsequent academic year in the month of May every year.

iii) Principal will constitute the selection committee for recruitment in each Department, with the HOD, senior staff member as its members. University experts will be invited as per the university norms.

5.2 Recruitment

i) The selection committee shall prepare a job description and job specification for the candidates to be recruited.

ii) The committee shall augment candidature in a ratio of 1:3 for every position to be filled

iii) The committee, if deems it fit, may also conduct walk in interviews for augmenting the required candidates.

iv) The committee shall short list the candidates in the process as under.

a) Written test, if warranted

b) Aptitude tests, including class room demonstrations.

c) Personal interviews

v) The committee shall finalize the short listed candidates and submit their recommendation along with the personal Data sheets of the Candidates to the Principal who in turn decides the appointment and seeks management approval.

vi) The appointment offer shall be released by the Principal.

5.3 Certificates (Deposit/Return)

i) All staff members shall submit original certificates to the college. They will be returned along with service/salary certificates on proper resignation from service.

ii) If an individual after submission of certificates asks for them for a short duration, three months' salary is required to be deposited in lieu of the certificates for a period of 60 days. The certificates should be submitted back before the expiry of 60 days and the amount deposited will be refunded without any interest.

5.4 Orientation

i) Every teacher of the college shall be briefed about the college by the Principal or his nominee on the day of his/her joining.

ii) The Principal shall take/send him/her to the department of his/her work and introduce him/her to the Head of the Department in turn.

iii) The Head will brief him/her about the Department and will introduce the new incumbent to all the teaching and non-teaching members of his team.

iv) The HOD will take him/her round the campus, and explain to him/her the various code of conduct to be observed in availing the facilities in the college.

v) The HOD will also ensure that all the registration formalities, including submission of joining report etc. are fulfilled by obtaining the assistance of the office team.

vi) The HOD will introduce the new faculty member to the first class he/she is going to handle in every section of his assignment.

6. SALARIES AND INCENTIVES

6.1 Positions and pay scales

i) The College will have the following positions in hierarchy in the teaching Departments

a) Principal
b) Professors
c) Associate Professors
d) Assistant Professors

ii) Besides, there shall be supporting staff like lab Assistants and Department attendant in each Department.

iii) The college Office will have the following stages of hierarchy in administrative Department.

a) Administrative Officer, Manager
b) Cashier, Accountant, Office Superintendent
c) Clerical Assistants, Attenders.

iv) The scales of pay for various teaching positions will be as per AICTE norms as adopted by the management. The scales of pay for various non-teaching staff positions will be as approved by the management.

6.2 Yearly Increments

i) Staff members are eligible to the increments prescribed at the end of 12 months service in the institution. The increments falling due from July to December in a calendar year will be given in January of next calendar year and the increments falling due from January to June will be given in July of that calendar year.

ii) Additional increments shall be given to staff members based on their contributions

6.3 Staff Benefits:

i) All Faculties and Staff members are covered under group insurance policy.

ii) All eligible employees of the institution are entitled for EPF scheme. The management contributes equal amount towards the Employer's contribution to the EPF Scheme.

6.4 Incentives and Rewards:

Staff members are eligible for the following incentives and rewards, based on their performance, contribution

with minimum 1 year of service at the institution.

i) Summer/Winter Schools/Seminars/Conference – 100% Registration Fees and On Duty leave .This will not be applicable to the faculty members being paid by the host institution.
ii) Paper Publications in National Conferences- 100% Registration Fee, On-Duty leave.
iii) Paper publications in international conferences – 100% Registration Fees, On-Duty once in a year.

6.5 On-Duty Assignments:

i) The College can permit any staff member to take special assignments with other colleges or industrial units, for specific period of time or to attend seminars or training programs.

ii) The period of absence due to such assignments shall be treated in the following manner.

iii) Where the assignment is under arrangement between the college and the other unit, the staff will continue to receive the pay and perquisites from the college.

Where the assignment is arranged by the individual faculty member, with terms and conditions defined by him/her with the unit in which the assignment is to be carried on, he/she will not be eligible for the pay and perquisite from the college.

Under such circumstances, the Principal shall decide the leave, based on current responsibilities and requirements in the college.

Where the staff is proceeding on a training program duty sponsored by the college, the entire period will be treated as on duty and he/she will be eligible for the pay and perquisites as though he had been working in the college during such period.

7. FACULTY NORMS AND PROMOTIONS

7.1 Promotion Policy

All promotions shall be considered on the basis of merit-cum-seniority basis from among the staff subject to the following conditions.

i) There shall be a vacancy existing at the higher cadre as per the AICTE prescribed staff pattern and cadre ratio.

ii) The staff member should have obtained the qualification prescribed by AICTE for consideration for the post.

iii) The staff member should have completed the years of service a prescribed as for consideration for the vacant post.

Those who are promoted shall be put in the Scale of Pay applicable to that category.

7.2. FACULTY NORMS –AS PRESCRIBED BY AICTE

BE./B.Tech.

Faculty required 1:15 (Teacher: student ratio)

Cadre ratio 1:2:6 (Professor: Associate Professor: Assistant Professor)

8. CONSULTANCY, R & D AND TEACHING ASSIGNMENTS

8.1 Consulting R & D

i) The College encourages its teachers to take consultancy and R & D assignments within institution, with other institutions or industries appropriate to the teacher's competence.

ii) The teacher shall undertake such assignments.

a) When the College is approached for such help and the College assigns such engagement to the particular teacher or

b) When the teacher himself/herself is approached by the outside agency for such help.

iii) In either case the teacher shall take up the assignments obtaining the approval of the Principal in writing.

iv) The teacher shall avail the administrative and infrastructure facilities available in the college for carrying out his/her assignments.

v) The teacher shall also associate the other members of the faculty working on the assignments.

vi) The teacher shall levy such professional charge on the benefiting agency; however, the charges shall be shared with the college on the following basis.

a) Where it is a project or R & D type assignment, involving the infrastructure facilities and work time, it shall be 60:40 (40% to College)

b) In all other cases like consultancy assignments, it shall be 70:30 (30% to College).

c) Where members of staff are associated in the assignment undertaken by a faculty, the associated staff members shall be paid honorarium by the faculty appropriately, on approval of Principal.

d) The Project – Coordinator shall utilize the project funds received as per the rules and regulations agreed upon with the funding agencies.

8.2 <u>Seminars/Workshops</u>

i) The College encourages its faculties to organize AICTE/ISTE funded Seminars and Workshops for the benefits of fellow teachers and students.

ii) The Management provides additional funds for any AICTE/ISTE funded programs and for other programs organized by the Department.

9. UNDERTAKING BY THE MEMBER:

Every member of the faculty should carefully read and understand the above "Duties and Responsibilities" and undertake to abide by them. As a mark of such commitment, the member at the time of joining the service should sign and give an undertaking as below:

I have read and understood all the rules above and agree to abide by them without any lapse. I also understand that in case of non- compliance with any of the above I will be relieved from the employment of Anjalai Ammal Mahalingam Engineering College.

Signature : Name :

Date : Designation:

VICE - PRINCIPAL
Anjalai Ammal Mahalingam
Engineering College
KOVILVENNI - 614 403

09/01/18
Principal,
Anjalai Ammal Mahalingam
Engineering College,
Kovilvenni - 614 403

Administrative Officer
Anjalai Ammal - Mahalingam
Engineering College
KOVILVENNI - 614 403

JUSTICE A. RAMANUJAM
MANAGING TRUSTEE
III MAIN ROAD,
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CHENNAI-600 037.

43

Subsequently, as per the revision of faculty Norms, AICTE, faculty requirements modified as 1:20. Accordingly, faculty Cadre ratio also modified.

10.1.2.6 Availability of Institutional Strategic Plan and its Effective Implementation andMonitoring

AAMEC has prepared comprehensive and progressive strategic plan for various curricular and co-curricular activities as listed below with their implementation and Monitoring.

1. **Strategic plan for Institutional development**

Academic Year	Strategic Plan
2024 – 2025	❖ To get Research Centre for Mechanical Engineering ❖ Starting ME VLSI Design ❖ Starting M.E – CSE and M.Tech Information Technology
2025 – 2026	❖ To apply for NBA for BE Civil Engineering, BE Electrical Electronics Engineering and B.Tech Chemical Engineering ❖ To get Research Centre in CSE, ECE and IT departments
2026 – 2027	❖ To get A+ Grade in NAAC accreditation Cycle 2
2027 – 2028	❖ To get Autonomous Status from Anna University
2028 – 2029	❖ Starting ME Construction Engineering and Management in Civil Department
2029 – 2030	❖ Starting ME Renewable Energy in EEE Department
2030 – 2031	❖ Starting ME CAD/CAM in Mechanical Department
2031 – 2032	❖ To get A++ Grade in NAAC accreditation Cycle 3

2. **Strategic plan for Quality Improvement**

The various strategic plans for quality improvement, its implementation and monitoring are reported here under:

a) The Internal Quality Assurance Cell (IQAC) was constituted in the college on 04.02.2019 as per the guidelines of NAAC to improve the quality of academic work and to get NAAC accreditation. Various initiatives like Course Plan, Course End Report etc., were implemented to improve the quality of teaching learning process. A committee was constituted to collect and consolidate the data for various NAAC Criteria. Institutional Information for Quality Assurance was submitted to NAAC on 25.08.2021. Subsequently Self Study Report and Data Verification and Validation work have been completed. The Institution was awarded B grade on 22.03.2022 for five years by NAAC.

b) One day workshop on AICTE Examination Reform was conducted on 21.09.2021 to 50 faculty members of the college. Then, the faculty members prepare the question paper Internal Assessment Test as per the guidelines given in AICTE Exam Reform.

c) To implement OBE concepts in the daily teaching, a Short term training on "Creating Learning Experiences in Class Room Teaching" is organized by IQAC in three phases to train all the faculty members. Phase I training was held on 21 to

23 April 2022 and Phase II training was held on 21, 23 & 24 May 2022and Phase III training will be held in June 2022.

d) Review and appraisal of the performance of Faculty members – carried out with the help of External Experts, preferably from NIT Trichy.
e) All faculty members are encouraged to undergo Training Programs, Workshops, etc., organized by National Level Institutions with financial assistance from the Institution.
f) Payment of Professional Development Allowance to staff members publishing papers in SCI / Scopus Indexed Journals.
g) Partial financial assistance and share from revenue generated through Consultancy activities and or Research projects.

3. Strategic plan for online learning through NPTEL

NPTEL Local Chapter was established on 21.03.2019 to promote online learning of NPTEL courses by the staff and students of the Institution. The staff and students actively attended the NPTEL courses and get certified. The number of students and staff certified till July Dec 2021 is given below.

S. No.	Examination details	No. of Students certified	No of staff certified	Total
1	July-Dec 2023	33	09	42
2	Jan-April 2023	40	9	49
3	July-Dec 2022	22	11	33
4	Jan-April 2022	28	7	35

To promote the online learning through NPTEL, reimbursement of the NPTEL Certification Examination fee was approved by the Management.

4. Strategic plan for promoting research publications

AAMEC motivate the faculty members and the students to continue their research work in their specialization. The faculty members are advised to improve the quality of final year project work and publish the work as a journal paper or Conference paper. The number of papers published in journal and conferences are given below. The Management is also financially supporting the staff members to attend Faculty Development Programs, Workshops, and Conferences etc.

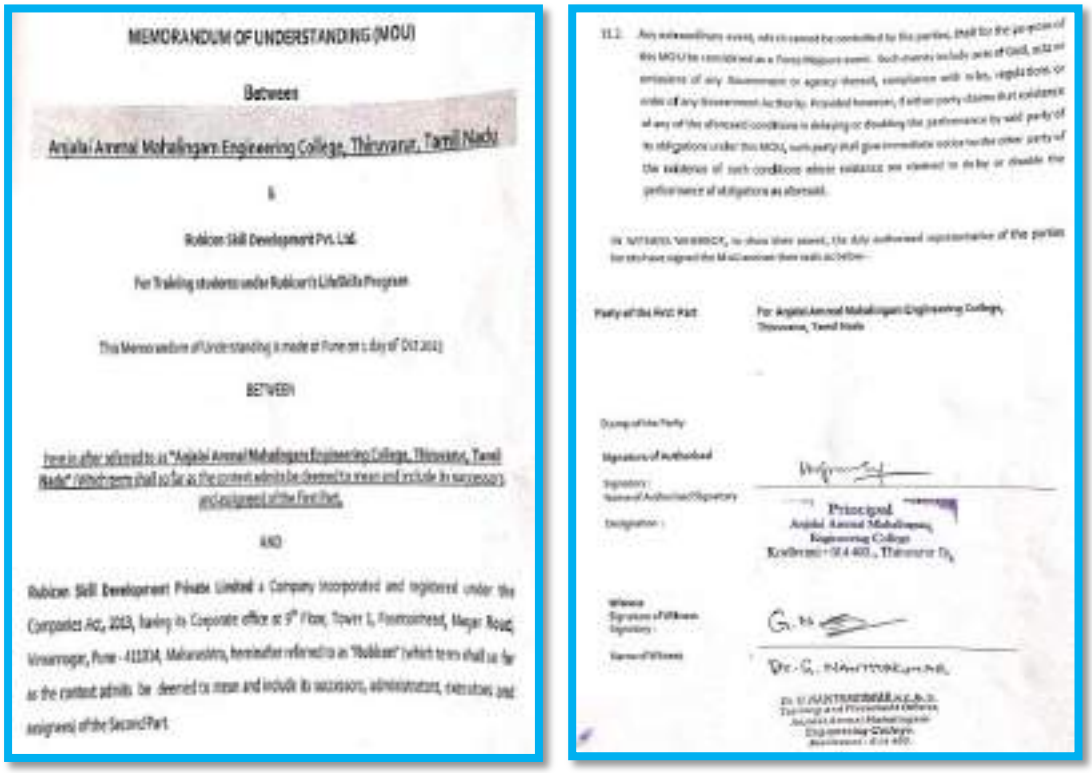
S. No.	Academic Year	Number of Papers Published in International Journal	Number of International Conferences Attended
1	2023-24	90	25
2	2022-23	91	26
3	2021-22	73	35

Besides, a sum of Rs. 10,000/- will be paid for publications in SCI Indexed Journals.

5. Strategic plan for industrial partnership

For the training of students for the latest industrial requirements, MoU has been signed with various organizations as given below

a. WOUA Software Labs
b. Logritha Technologies
c. Tesla Minds, Chennai
d. Vi Microsystems Pvt. Ltd.,Chennai
e. Vajenthra Microwave Products, Chennai
f. PantechProEdPvtLtd,Trichy
g. BOSON's Lab,Morrisville ,North Carolina
h. SysarcInformatix Private Limited,Chennai
i. Incresco Technology Solutions Private Limited, Bengaluru
j. OAppS Technologies Private Limited,Thanjavur
k. Centre of Excellence in Manufacturing National Institute of Technology,Tiruchirappalli
l. Bharat Engineering Solutions, Coimbatore
m. Blue Genit Information Technology, Rasipuram
n. EDIFICE Placement Solutions, Coimbatore
o. Rubicon Skill Development Pvt.Ltd., Bangalore
p. Naandhi Foundations, Chennai
q. Infosys Springboard, Bangalore



MEMORANDUM OF UNDERSTANDING (MOU)

Between

Anjalai Ammal Mahalingam Engineering College, Thiruvarur, Tamil Nadu

&

Rubicon Skill Development Pvt. Ltd.

For Training students under Rubicon's LifeSkills Program

This Memorandum of Understanding is made at Pune on ... day of Oct 2021

BETWEEN

Principal

MOU of Rubicon Skill Development Pvt. Ltd., Bangalore

6. Strategic plan for collaboration with other Institutions

For the training of faculty members and students, the college has established MoU with SASTRA University, Thanjavur under AICTE Margdarshan Scheme on 15.09.2019 and UGC PARAMARSH scheme on 24.09.2020. Various programs conducted under the schemes are given below.

Margdarshan Scheme

a. Guest Lecture on Python Progamming and Data Sciences was conducted virtually on 13.07.2020 to CSE, IT and MCA students by Dr. K.R. Manjula, School of Computing, SASTRA University, 54 students participated in the event.
b. Guest lecture was arranged on "Finite Element Analysis" for third year Mechanical Engineering students on 20.02.2020 through Margadharsan Scheme by the Resource person Dr. P. Marimuthu, School of Mechanical Engineering, SASTRA Deemed University, Thanjavur.
c. Dr. V. Badrinath, Dean Training & Placement, Programme Coordinator, Margadharsan Scheme visited the college on 16.12.2020 Wednesday and motivated the faculty members by making ppt presentation for the preparation of NBA and NAAC accreditation.
d. Workshop on NBA Criteria and Process was conducted to faculty a member of AAMEC under Margadarshan Scheme was conducted on 16 and 17 April 2021.

Paramarsh Scheme

a. One day workshop was arranged on "NAAC Criteria" through Paramarsh Scheme on 23.09.2021

In addition to the above, work has been initiated to collaborate with National Institute of Technology Trichirappalli and National Institute *of Food Technology*, Entrepreneurship and Management – Thanjavur for research and academic purposes.

10.1.3 Decentralization in working and grievance redressal mechanism (5)

10.1.3.1 Decentralization in Working

Various committees and cells are composed and governed by representatives from various stakeholders such as Head of the Department, Faculty, Students and Management. Decisions are taken collectively. List the names of the faculty members who are administrators/decision makers for various responsibilities:

Table: 10.1.3.1 Delegation of Institution level Responsibilities

S.No.	Name	Department/Designation
1	Dr. S. N. Ramaswamy	Principal/Civil
2	Dr. K. Velmurugan	HoD/CSE
3	Mrs. J.Nandhini	HoDi/c/Chemical

4	Dr. A. Vijayakumar	HoD/ EEE
5	Dr. A. BhavaniSankar	HoD/ ECE
6	Dr.K.Mohan	HoD/IT
7	Dr. K. Sivaramakrishnan	HoD/Mechanical
8	Mr. N.Sureshkumar	HoD/Civil
9	Dr.R.Kabilan	HoD/MCA
10	Dr. J. Palanivel	IQAC Coordinator

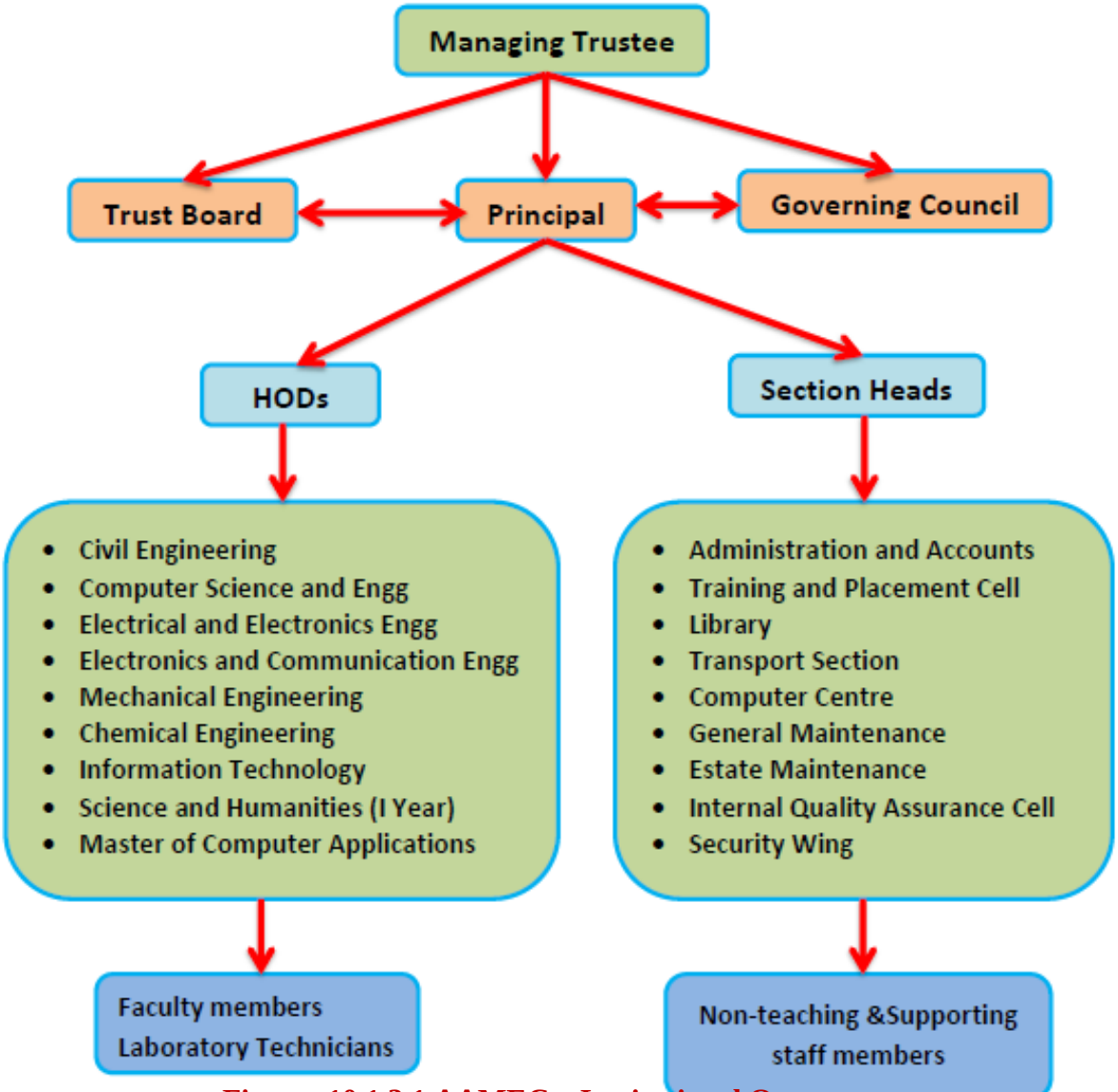


Figure: 10.1.3.1 AAMEC – Institutional Organogram

Decentralization in Working: Faculty Development is delegated to the Dean Faculty Welfare:

- Students' Academic Activities and Examination is being looked after by Head of the Departments and further assisted by department faculty members**.**
- Developmental works of the Institute is being looked by Principal who further is assisted by HoDs.
- Training and Placement is delegated to placement officer.
- The Students Activities, Hostels, Security Is being looked after by Dean Students Welfare.
- Research and Consultancy of the Institute is being looked after by Professor, placement and training.
- Office Administration and other matters are being looked after by Office superintendent.
- The Departments and Centres are being looked after by Heads of Departments and Heads of Centres.

All the above arrangements report to the Principal of Institute in their day- to-day official activities and assignments.

10.1.3.2 Mechanism and Composition of Grievance Redressal system

The Institute receives grievance both online and off line. The online grievances are addressed through online mode after obtaining there relevant information for concerned quarters. The offline grievances are also responded through surface mail to the aggrieved parties. Further for grievance Redressal of teaching and non-Teaching staff committees are constituted to looking to the complaints/grievances from the aggrieved. There port of the grievance committee is forwarded to the Principal for further necessary action and the corrective measures are taken. Following Grievance Committees have been constituted.

A. GRIEVANCE REDRESSAL COMMITTEE (Online)

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

(Approved by AICTE and Affiliated to Anna University, Chennai)

KOVILVENNI - 614 403. THIRUVARUR Dist. TAMILNADU.

20.01.2023

ONLINE GRIEVANCE REDRESSAL MECHANISM

Online grievance redressal mechanism was established to address the genuine problems and complaints of students. It receives and disposes grievances of students online. The link for registering grievances is made available in the home page of College website https://aamec.edu/grievance.com/

The students make use of this platform to voice their grievances regarding academic and non-academic matters.

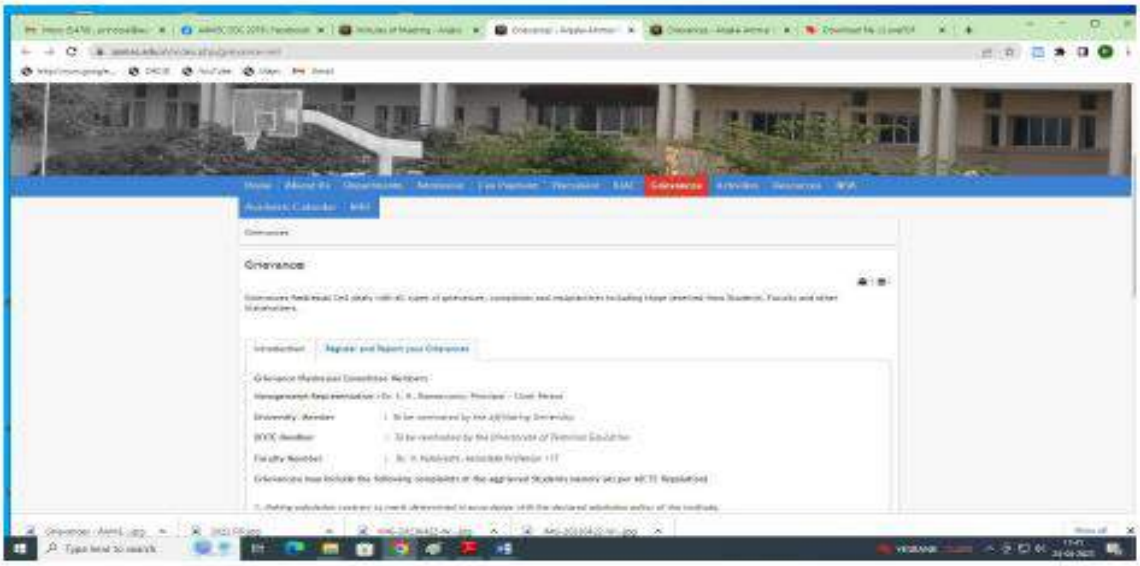
The coordinator of redressal committee is in charge of consolidating grievances received online and forwarding for further action.

The students can register their grievances in the link provided in the web site of the institution.



In order to ensure transparency and with paramount objective of preventing unfair practices and to provide a mechanism to innocent students for redressal of their grievances, GRIEVANCE REDRESSAL COMMITTEE has been constituted as per the AICTE (Establishment of Mechanism for Grievance Redressal) Regulations, 2012 under Clause 1 of Section 23 of the AICTE Act, 1987 (52 of 1987) and vide Notification F.No. 37-3/Legal/2012, dated 25-02-2012.


Grievance



Further Details kindly refer our website : https://aamec.edu.in/index.php/grievance-cell

S.No.	Name	Designation	Position
1.	Dr. S.N.Ramaswamy	Principal	Chairman
2.	Dr. K.Padmavathi	AP/ English	Co - ordinator
3.	Mr. F.Mathew Philip	AP/MCA	Member
4.	Mrs. R.Priya	AP/IT	Member
5.	Mr. G.Murugesan	AP/ ECE	Member
6	To be filled	University Representative	Member
7	To be filled	DOTE Representative	Member

Students and staff members are advised to submit their grievances in the online portal available in our website: https://aamec.edugrievance.com/

Alternatively, students are encouraged to inform the members of the committee for necessary action. Even after the grievances could not be resolved by the Grievance Redressal Committee, it will be directed to the Ombudsman appointed by Anna University.

Dr. S.N.RAMASWAMY, M.E., Ph.D.,
PRINCIPAL
Anjalai Ammal - Mahalingam
Engineering College,
Koyilvenni, Thiruvarur Dt-614 403

Principal

A. GRIEVANCE REDRESSAL COMMITTEE

(Offline)

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

(Approved by AICTE and Affiliated to Anna University, Chennai)

KOYILVENNI - 614 403. THIRUVARUR Dist. TAMILNADU.

Dr. S.N. RAMASWAMY M.E., Ph.D.,
Principal

☎ Off : 04374-232516, 232696
E-mail : principal@aamec.edu.i
Web : www.aamec.edu.in

GRIEVANCE REDRESSAL COMMITTEE

In order to ensure transparency and with paramount objective of preventing unfair practices and to provide a mechanism to innocent students for redressal of their grievances, GRIEVANCE REDRESSAL COMMITTEE has been constituted as per the AICTE (Establishment of Mechanism for Grievance Redressal) Regulations, 2012 under Clause 1 of Section 23 of the AICTE Act, 1987 (52 of 1987) and vide Notification F.No. 37-3/Legal/2012, dated 25-02-2012.

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5.	Mr. G.Murugesan	AP/ ECE	Member
6	To be filled	University Representative	Member
7	To be filled	DOTE Representative	Member

Students and staff members are advised to submit their grievances in the online portal available in our website: https://aamec.edu/grievance.com/

Alternatively, students are encouraged to inform the members of the committee for necessary action. Even after the grievances could not be resolved by the Grievance Redressal Committee, it will be directed to the Ombudsman appointed by Anna University.



Figure: 10.1.3.2.1 Grievances received from students



Figure: 10.1.3.2.2 Grievances received from students

Grievance

Grievance Redressal Cell deals with all types of grievances, complaints and malpractices including those received from Students, Faculty and other Stakeholders.

Introduction

Grievance Redressal Committee Members

Management Representative : Dr. S. N. Ramaswamy, Principal - Chair Person

University Member : To be nominated by the Affiliating University

DOTE Member : To be nominated by the Directorate of Technical Education

Faculty Member : Dr. V. Kalaivaani, Associate Professor / IT

Grievances may include the following complaints of the aggrieved Students namely (As per AICTE Regulation)

1. Making admission contrary to merit determined in accordance with the declared admission policy of the Institute.
2. Irregularity in the admission process adopted by the Institute.
3. Refusing admission in accordance with the declared admission policy of the Institute.
4. Withholding or refuse to return any document in the form of certificates of degree, diploma or any other award or other document deposited with it by a person for the purpose of seeking admission in such institutions, with a view to induce or compel such person to pay any fee or fees in respect of any course or programme of study which such person does not intend to pursue.
5. Demand of money in excess of the specified in the declared admission policy or approved by the competent authority to be charged by such institution.
6. Breach of policy for reservation in admission as may be applicable.
7. Complaints of alleged discrimination by students from Scheduled Tribes, OBC, women, minority or disabled categories.
8. Non payment or delay in payment of scholarships to any students that such institution is committed, under the conditions imposed by AICTE, or by any other authority.
9. Delay in conduct of Examinations or declaration of results beyond that specified in the academic calendar.
10. Non provision of student amenities as may have been provided or required to be provided by the Institutions.
11. Denial of quality education as promised at the time of admission or required to be provided.
12. Non-observance of anti-malpractice practices.
13. Harassment and victimization of students including sexual harassment.
14. Refusal of fees on withdrawal of admissions as per AICTE instructions from time to time.

Register and Report your Grievances (https://aamec.edu/grievance.com/)

ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE
Run by Mazdoor Welfare Trust
Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai, Accredited by NAAC
KOVILVENNI - 614 403, THIRUVARUR - DIST., TAMIL NADU

Dr. S.N. Ramaswamy, M.E., Ph.D.
Principal
Office : 04374 - 222210
E-Mail: principal@aamec.edu.in Website: aamec.edu.in

Dt : 24.03.2023

To
The Director of Technical Education,
Guindy, Chennai – 600 025

Sir,

Sub : Redressal of grievance of Faculty/ staff members of the institution – constitution of Grievance Redressal Committee – Nomination of members – Requested

Ref : Letter F.No : 1 – 103 / AICTE / PGRG/Regulations/ 2021 dt 17.03.2023 received from Member Secretary, AICTE, New Delhi

As per the All India Council, for Technical Education (Redressal of Grievances of faculty / Staff members) Regulations 2021 published in official Gazette of India No 119, Part III – Section 4 dt : 25.03.2021 and communicated in the letter cited, it is mandatory to constitute for " GRIEVANCE REDRESSAL COMMITTEE (GRC) " in each institution to look into the grievance of the faculty / staff members. The composition of the GRC shall be as follows :

a. Principal of the Institution as Chair person
b. One Senior Professor of the affiliating University as a Member
c. One official from Directorate of Technical Education as a Member
d. One Senior Faculty (not below Associate Professor) as Member

2.In order to implement the provisions prescribed under the above regulations, it is requested that an official from Directorate of Technical Education may kindly be nominated for the constitution of Grievance Redressal Committee in this institution at an early date.

Principal

ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE
Run by Mazdoor Welfare Trust
Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai, Accredited by NAAC
KOVILVENNI - 614 403, THIRUVARUR - DIST., TAMIL NADU

Dr. S.N. Ramaswamy, M.E., Ph.D.
Principal
Office : 04374 - 222210
E-Mail: principal@aamec.edu.in Website: aamec.edu.in

Dt : 24.03.2023

To
The Registrar
Anna University
Guindy, Chennai – 600 025

Sir,

Sub : Redressal of grievance of Faculty/ staff members of the institution – constitution of Grievance Redressal Committee – Nomination of members – Requested

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a. Principal of the Institution as Chair person
b. One Senior Professor of the affiliating University as a Member
c. One official from Directorate of Technical Education as a Member
d. One Senior Faculty (not below Associate Professor) as Member

2.In order to implement the provisions prescribed under the above regulations, it is requested that a Senior Professor from Anna University may kindly be nominated for the constitution of Grievance Redressal Committee in this institution at an early date.

Principal

Dr. S.N.RAMASWAMY, M.E., Ph.D.,
PRINCIPAL,
Anjalai Ammal - Mahalingam
Engineering College,
Koyilvenni, Thiruvarur Dt-614 403

Principal

B.Constitution of Anti-Ragging Committee

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
(Approved by AICTE and Affiliated to Anna University, Chennai)
KOYILVENNI - 614 403. THIRUVARUR Dist. TAMILNADU.

Dr. S.N. RAMASWAMY M.E., Ph.D.,
Principal

☎ Off : 04374-232516, 232696
E-mail : principal@aamec.edu.i
Web : www.aamec.edu.in

20.01.2023

CONSTITUTION OF ANTI-RAGGING COMMITTEE

As laid down in clause 6(a) of AICTE regulations on curbing the menace of ragging in Higher Educational Institutions, an Anti-Ragging committee is constituted in AAMEC, Kovilvenni, Thiruvarur district. The organization of the committee is as under:

Members

S.No	Name	Designation/Dept	Mobile No.
1.	Dr.S.N.Ramaswamy	Principal	9791451644
2.	Mr.K.Sivaprakasam	Inspector of Police	9894686506
3.	Mr.R.Paranjothi	Tahsildar	9445000624
4.	Mr.S.Kumar	Club President	9585683715
5.	Dr.K.Mohan	HoD of IT	9894577935
6.	Mr.C.Thirvengadam	Associate Prof of CSE	9443031730
7.	Mrs.D.K.Shanmugapriya	Asst.Prof. of Chemical	9842838526
8.	Mrs.S.P.Akshaya	Asst.Prof of Civil	9047540891
9.	Mr.P.Muraligopal	Asst.Prof. of Mechanical	9443127606
10.	Dr.K.Sathishkumar	Asst.Prof of Maths	9865661796
11.	Ms.Sentamil Meenatchi U.J	Student of IT	8489221073
12.	Mr.S Vinoth Kumar	Student of CSE	9715548176
13.	Mr.G.Elangovan	Teacher/ Parent Representative	9944884777
14.	Mr.S.Anbumani	Technician / Non – teaching	9442453289

Anti-Ragging squad

S.No	Name	Designation/Dept	Mobile No.
1.	Dr.M.Appas Ali	HoD of MCA	7904515873
2.	Mr.N.Ganesan	Associate Prof of Civil	9952406932
3.	Ms.G.Sarujasbeneslekha	Asst.Prof of EEE	7639458973
4.	Dr.R.Rajaganapathi	Asst.Prof of ECE	9940701501
5.	Ms.S.Karthika	Asst.Prof of Civil	9443873439
6.	Mr.A.M.Ashok Kumar	Physical Director	9443549423

Dr. S.N.RAMASWAMY, M.E., Ph.D.,
PRINCIPAL,
Anjalai Ammal - Mahalingam
Engineering College,
Koyilvenni, Thiruvarur Dt-614 403

Principal

C. Internal Complaint Committee

ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE
(Approved by AICTE and Affiliated to Anna University, Chennai)
KOVILVENNI - 614 403. THIRUVARUR Dist. TAMILNADU.

Dr. S.N. RAMASWAMY M.E., Ph.D.,
Principal

☎ Off : 04374-232516, 232696
E-mail : principal@aamec.edu.i
Web : www.aamec.edu.in

20.01.2023

CONSTITUTION OF INTERNAL & COMPLAINT COMMITTEE

As per the guidelines of AICTE, UGC, NAAC an Internal & Complaint Committee has been established by Anjalai Ammal Mahalingam Engineering College to provide a healthy and congenial atmosphere for the staff and students of the College. The committee has well-developed guidelines and norms for a policy to uphold zero tolerance.

Complaint Committee Members:

S.No	Name	Designation/Dept	Mobile No.
1.	Dr.V.Kalaivazhi	Chairperson/IT	9442141013
2.	Dr.N.Anandhi	Member/Maths	9842016588
3.	Mr.F.Mathew Philip	Member/MCA	9791564592
4.	Mr.S.Sundaramoorthy	Member/office	9489978472
5.	Ms.V.Rakshana	Student Member/CSE	7904471959
6.	Mrs.K.Padmavathi	Member/English	9171303020

Internal Committee Members:

S.No	Name	Designation/Dept	Mobile No.
1.	Mr.S.Seeralan	Member/Office	8098323862
2.	Mr.S.Hariraj	Student Member/CIVIL	9444617168
3.	Ms.M.Akshaya	Student Member/ECE	7708478297

Dr. S.N.RAMASWAMY, M.E., Ph.D.,
PRINCIPAL
Anjalai Ammal - Mahalingam
Engineering College,
Kovilvenni, Thiruvarur Dt.-614 403

Principal

10.1.3.3 Non-statutory committees

The non- statutory committees of the college support in the effective operations of the Institution. The committees will review the operations and proactively guide and advice the college for its efficiency and impact.

Table: 10.1.3.3 List of Non-statutory committee members

S.No.	Committee/Club	Headed By	Designation/Dept.
1.	Academic Committee	Dr.S.N.Ramaswamy	Principal
2.	Placement Committee	Dr. J. Palanivel	Professor/Placement Officer
3.	Naan Mudhalvan-SPOC	Dr. G. Nanthakumar	Professor/CSE
4.	Library Committee	Mr. G. Ravichandran	Librarian
5.	Media coordinator	Dr.K.Mohan	Associate professor/HoD-IT
6.	Transport Committee	Dr. K.Mohan	Associate professor/HoD-IT
7.	Anna University /AICTE Coordinators	Dr.R.Arunachalam	Assistant Professor/CSE
8.	Industry - Institution Interaction Cell	Dr.G.Nanthakumar	Professor/CSE
9.	Alumni Association	Mr.P.Muraligopal	Assistant Professor/MECH
10.	ISTE	Mrs.P.Sivasankari	Assistant Professor/EEE
11.	NDLI	Mrs.J.SathiyaJothi	Assistant Professor/IT
12.	IIT-Bombay Spoken Tutorial	Mr.R.RamaRajesh	Assistant Professor/IT
13.	Hostel Committee	Mr.VijayaRajan Mrs.S.P.Akshaya	Assistant Professor/MECH Assistant Professor/Civil
14.	Purchase in-charge	Dr.B.Vijayabaskar	Professor/Physics
15.	National Service Scheme(NSS)	Dr.N.Raja	Assistant Professor/Physics
16.	Youth Red Cross(YRC)	Mrs.M.C.Jayaprasanna	Assistant Professor/ IT
17.	Red Ribbon Club(RRC)	Mrs.G.Kalaiselvi	Assistant Professor/CSE
18.	UnnatBharatAbhiyan(UBA)	Dr.D.Deepa	Assistant Professor/ Chemistry
19.	Environmental Club	Dr.N.Ananthi	Assistant Professor/Maths
20.	Cultural and Literary Association Club	Dr.K.Padmavathi	Assistant Professor/ English
21.	Sports Club	Dr.A.M.Ashokkumar	Physical Director
22.	Estate Officer	Mr.N.Naveen	Civil Engineer
23.	College Day Committee	All Department Heads	-
24.	Student Welfare Committee	All Department Heads	-
25.	Magazine Committee	All Department Heads	-

26.	Drug Abuse	All Department Heads	-
27.	Co-operative	All Department Heads	-
28.	Seminar	All Department Heads	-
29.	Workshop	All Department Heads	-
30.	Conference	All Department Heads	-
31.	Promotion of Brand Image	All Department Heads	-
32.	Parent/Relation	All Department Heads	-
33.	Disciplinary	All Department Heads	-
34.	Mentoring of Student Welfare	Respective Mentors	-
35.	Counseling	Department Faculties	-
36.	Attendance/Class Teaching of Every Class/Student Progress Communication	Individual Faculties	-

10.1.4 Delegation of financial power

Indian Bank, AAMEC Branch, Kovilvenni is located inside the college campus. All the major financial transactions of the institution are operated by Managing Trustee through the Current Account. A sum of Rupees Fifteen lakhs (Rs.15, 00, 000/-) is used every month under online account for making other transactions. Besides, an imprest amount of Rs. 50,000/- (Rupees fifty thousand only) is sanctioned every month to be operated by Principal for minor expenditure. All the financial requirements are submitted by Principal and Managing Trustee will sanction necessary amount immediately. In addition, a separate account namely Principal General Account is also operated by Principal to carry out needy expenses. HODs are entitled to utilize the money for institutional/departmental requirements.



Figure: 10.1.4. Budget Proposal

10.1.5 Transparency and availability of correct/ambiguous information in public domain (5)

The Institute has a dynamic website and all the relevant information is placed on the Institute Website www.aamec.edu.in for the information of public.



Figure: 10.1.5 Dissemination of information through AAMEC website

10.2 Budget Allocation, Utilization and Public Accounting at Institute level. (15)

10.2.1. (A) Quantum of Budget Allocation for Three Years (Rs.in Rupees) (5)

FINANCIAL YEAR 2023-24

Total Income				**Actual Expenditure**			**Total No. of students 1568**
Fee	**Govt.**	**Grants**	**Other Sources 1.Interests on investment 2.Misc.Income**	**Recurring Expenditure including Salary**	**Non-Recurring Expenditure**	**Special Project /Any other**	**Expenditure per student**
103698908	NIL	NIL	Interest :3980832 Misc.Inc. :8439676	148345410	3209810	NIL	95618

FINANCIAL YEAR 2022-23

Total Income				Actual Expenditure			Total No. of students 1568
Fee	**Govt.**	**Grants**	**Other Sources 1.Interests on investment 2.Misc.Income**	**Recurring Expenditure including Salary**	**Non-Recurring Expenditure**	**Special Project /Any other**	**Expenditure per student**
14,79,62,235	NIL	NIL	Interest : 1,81,76,061 Misc.Inc. : 40,46,826	12,86,21,262	25,42,933	NIL	83,650

10.2.2 Utilization of Allocated Funds (5)

A. Budget utilization for three years (Rs. in crores):

Financial Year	Budget(INR)	Expenditure (INR)	Percentage of Utilization
2023-24	12,00,000,00	13,87,54,020	115.6 %
2022-23	11,34,65,000	15,37,36,741	135%
2021-22	12,67,95,000	10,47,20,586	82.59%
2020-21	10,36,55,000	9,46,51,744	91.31%

The Funds allocated have been well utilized for:

- Developing lab facilities.
- Additional labs were setup.
- New equipments were added to different labs.
- Library and Internet facilities were improved.
- Maintenance of workshop and lab equipments.
- Training programs for faculty members and non-teaching staffs.
- Extra-curricular activities of students.

BUDGET AND EXPENSES AT INSTITUTE LEVEL (2023-24)



ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE

Run by Mazdoor Welfare Trust

(Approved by AICTE, New Delhi-Affiliated to Anna University, Chennai) Accredited by NAAC

KOVILVENNI - 614 404, THIRUVARUR - DIST., TAMIL NADU

Hon'ble Justice Thiru A.Ramamurthy
Managing Trustee

Office : 04374 -
Website: aamec.edu.in

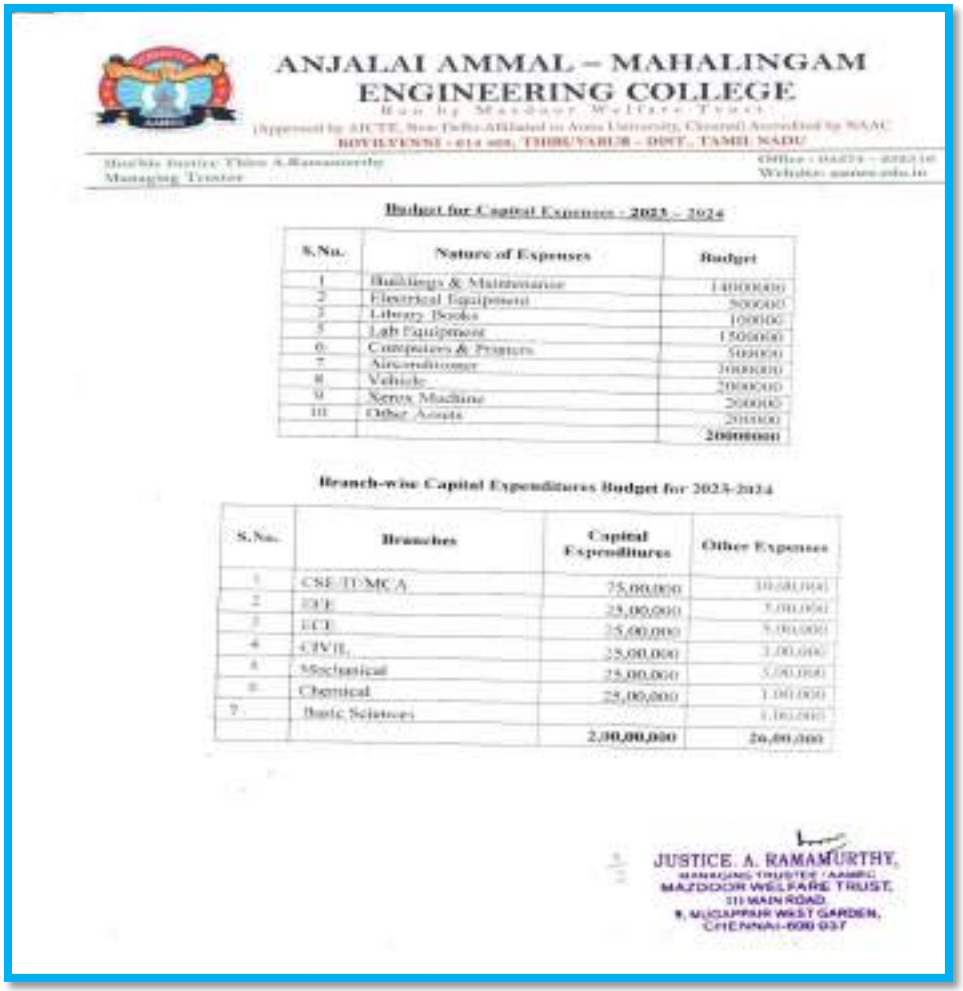
26.6.2023

BUDGET FOR 2023-2024

Based on approval of the Governing Council Meeting today, the following budget is sanctioned for the financial year 2023-2024.

S.No	Nature of Expenses	Budget
1	Salaries	75000000
2	Professional charges	150000
3	Provident Fund	4000000
4	ESI	420000
5	Insurance	75000
6	Electricity Charges	4500000
7	Telephone Charges	25000
8	Mess Contract Payments	1800000
9	Travelling & Conveyance	250000
10	Advertisement	300000
11	Audit Fee	250000
12	Postage	50000
13	Repairs & Maintenance	8000000
14	Printing & Stationery	2500000
15	Library Journals	500000
16	Lab Expenses	2000000
17	DOTE/AICTE/University Expenses	3000000
18	Rent, Rates, Freight & Taxes	700000
19	Vehicle & Generator Maintenance	100000
20	University Exam Expenses	4000000
21	Bank charges	10000
22	Interest Charges	1500000
23	Student Welfare Expenses	1500000
24	Staff Welfare Expenses	2500000
25	Miscellaneous Expenses	100000
26	Students Books	300000
27	Bus Expenses	8000000
28	Private Coach Remuneration	2250000
29	Mess Refund	500000
	Total	120000000

JUSTICE. A. RAMAMURTHY,
MANAGING TRUSTEE / AAMEC
MAZDOOR WELFARE TRUST,
111 MAIN ROAD,
9, MUGAPPAIR WEST GARDEN,
CHENNAI-600 037



ANJALAI AMMAL – MAHALINGAM ENGINEERING COLLEGE

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KOVILVENNI - 614 404, THIRUVARUR - DIST., TAMIL NADU

Hon'ble Justice Thiru A.Ramamurthy
Managing Trustee

Office : 04374 -
Website: aamec.edu.in

Budget for Capital Expenses - 2023 - 2024

S.No.	Nature of Expenses	Budget
1	Buildings & Maintenance	14000000
2	Electrical Equipment	500000
3	Library Books	100000
5	Lab Equipment	1500000
6	Computers & Printers	500000
7	Airconditioner	3000000
8	Vehicle	2000000
9	Xerox Machine	200000
10	Other Assets	200000
		20000000

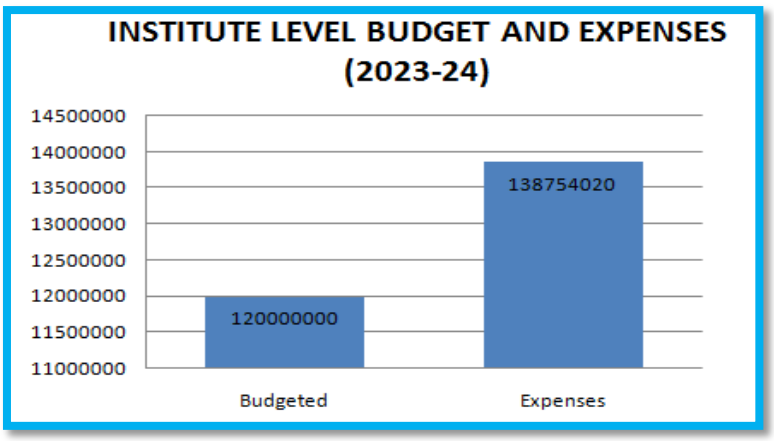
Branch-wise Capital Expenditures Budget for 2023-2024

S.No.	Branches	Capital Expenditures	Other Expenses
1	CSE/IT/MCA	75,00,000	10,00,000
2	ECE	25,00,000	5,00,000
3	EEE	25,00,000	5,00,000
4	CIVIL	25,00,000	2,00,000
5	Mechanical	25,00,000	2,00,000
6	Chemical	25,00,000	1,00,000
7	Basic Sciences		1,00,000
		2,30,00,000	**26,00,000**

JUSTICE. A. RAMAMURTHY,
MANAGING TRUSTEE / AAMEC
MAZDOOR WELFARE TRUST,
111 MAIN ROAD,
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CHENNAI-600 037

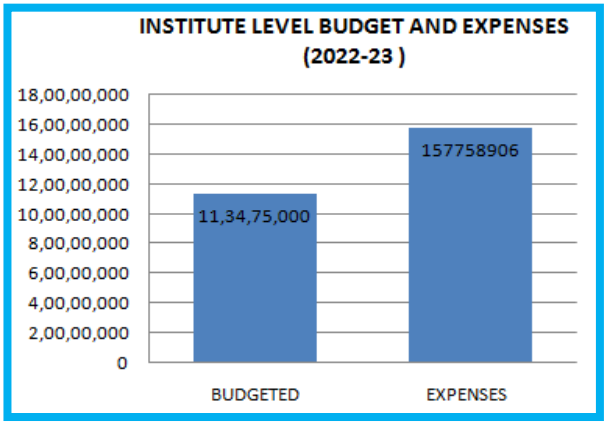
BUDGET AND EXPENSES AT INSTITUTE LEVEL 23-24

S.No	Nature of Expenses	Expenses(2023-2024)
1	Salaries	76653927
2	Professional charges	300000
3	Provident Fund Remittance	5907663
4	ESI Remitted	585348
5	Electricity Charges	7352016
6	Gratuity Premium	6799742
7	Telephone Charges	18700
8	Mess Contract Payments	2217288
9	Travelling & Conveyance	119868
11	Advertisement	126683
12	Audit Fee	216000
13	Postage	56525
15	Repairs &Maintenance	8506828
16	Printing & Stationery	2298759
17	Library Journals	373718
18	Lab Expenses	2501260
19	DOTE/AICTE/University Remittance	2243215
20	Rent,Rates,Frieght&Taxes	617408
21	Vehicle & Generator Maintenance	416465
22	University exam Expenses	532100
23	Bank charges	125410
26	Internet Charges	1215000
27	Student Welfare Expenses	2235456
28	Staff Welfare Expenses	3787109
29	Miscellaneous Expenses	137891
30	Bus Expenses	7464231
31	Private Exam Remuneration	333610
32	Fees Refund	335050
33	University Exam Fee Remitted	5276750
Total		**138754020**



BUDGET AND EXPENSESAT INSTITUTE LEVEL (2022-23)

Items	BUDGETED IN 2022-23 (INR)	EXPENSES IN 2022-23 (INR)
Library	10,00,000	22,066
Laboratory Equipment& Lab Consumable	15,00,000	31,12,365
TeachingandNon TeachingSalary	8,69,00,000	7,34,63,312
Maintenance And Spares	1,25,40,000	92,28,514
R&D	10,000	8000
Training and Travel	16,00,000	1,81,512
Miscellaneous &other Expenses	65,25,000	6,62,53,885
Computer Software	14,00,000	54,200
Dote/AICTE/University	20,00,000	54,35,052
Total	11,34,75,000	157758906



ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

(Approved by AICTE and Affiliated to Anna University, Chennai)
KOYILVENNI - 614 403. THIRUVARUR Dist. TAMILNADU.

Dr. S.N. RAMASWAMY M.E., Ph.D.,
Principal

☎ Off : 04374-232516, 232696
E-mail : principal@aamec.edu.in
Web : www.aamec.edu.in

17.03.2022

BUDGET FOR 2022 – 2023

Based on the discussions held in Trustees' Meeting today, the following budget is allocated under various heads for the financial year 2022 – 2023.

S.No	Nature of Expenses	2022 - 2023
1	Salaries	8,00,00,000
2	Professional charges	4,50,000
3	Provident Fund Remittance	40,00,000
4	ESI Remittance	4,00,000
5	Insurance	10,00,000
6	Electricity Charges	50,00,000
7	Telephone Charges	90,000
8	Mess Contract Payments	12,00,000
9	Travelling & Conveyance	1,00,000
10	Mess Refund	5,00,000
11	Advertisement	3,00,000
12	Postage	1,00,000
13	Repairs & maintenance	50,00,000
14	Printing & Stationery	5,00,000
15	Library Journals	5,00,000
16	Lab Expenses	15,00,000
17	DOTE/AICTE/UNIVERSITY	20,00,000
18	Rent, Rates, Freight & Taxes	5,00,000
19	Vehicle & Generator Maintenance	2,50,000
20	University exam Expenses	15,00,000
21	Audit fee	2,00,000
22	Bank charges	1,50,000
23	Lease Rent	25,000
24	Student Books	5,00,000
25	BSNL/RailTel Internet	14,00,000
26	Student Welfare Expenses	10,00,000
27	Staff Welfare Expenses	15,00,000
28	Miscellaneous Expenses	15,00,000
29	Bus Expenses	15,00,000
30	University Exam Fee	8,00,000
	Total	**11,34,65,000**

Managing Trustee



ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

(Approved by AICTE and Affiliated to Anna University, Chennai)
KOYILVENNI - 614 403. THIRUVARUR Dist. TAMILNADU.

17.03.2022

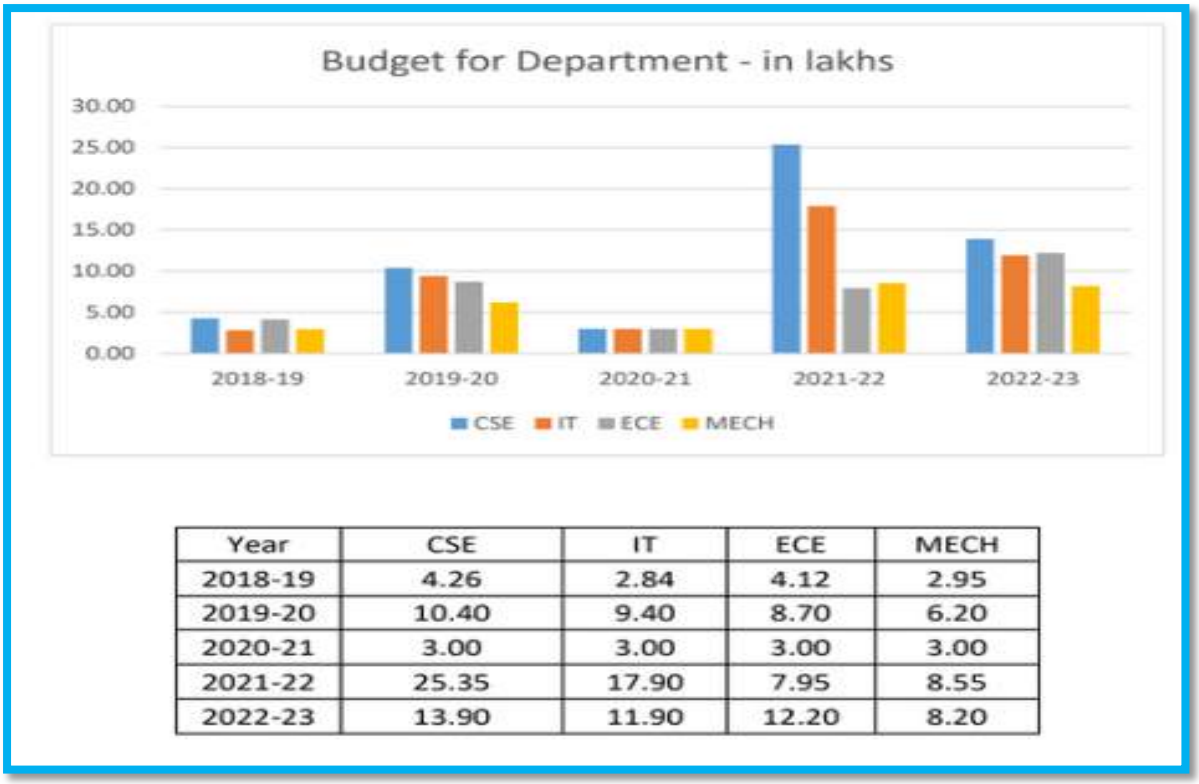
BUDGET FOR 2022 – 2023

Based on the discussions held in Trustees' Meeting today, the following budget is allocated for various departments for the financial year 2022 – 2023.

Department / Particulars	Chemical	Civil	CSE	ECE	EEE	IT	Mech	MCA	Total
Buildings & Maintenance	2,00,000	1,00,000	2,00,000	3,00,000	1,00,000	1,00,000	1,00,000	1,00,000	12,00,000
Electrical Equipment	3,00,000	2,00,000	5,00,000	3,00,000	2,00,000	3,00,000	2,00,000	3,00,000	20,00,000
Furniture	10,000	10,000	20,000	10,000	10,000	20,000	10,000	10,000	1,00,000
Library Books	10,000	10,000	20,000	10,000	10,000	30,000	10,000	10,000	1,00,000
Lab Equipment	2,00,000	2,00,000	4,00,000	6,00,000	5,00,000	5,00,000	3,00,000	3,00,000	25,00,000
Computers & Printers	50,000	50,000	3,00,000	3,00,000	1,00,000	2,00,000	1,00,000	1,00,000	12,00,000
Other Assets	3,00,000	1,00,000	2,50,000	1,00,000	1,00,000	3,00,000	1,00,000	1,00,000	12,00,000
Total	8,70,000	7,70,000	16,90,000	12,20,000	8,20,000	11,00,000	8,20,000	9,20,000	82,90,000

Budget for capital items will be finalized / approved based on the needs and requests to be submitted by individual departments.

Managing Trustee



Year	CSE	IT	ECE	MECH
2018-19	4.26	2.84	4.12	2.95
2019-20	10.40	9.40	8.70	6.20
2020-21	3.00	3.00	3.00	3.00
2021-22	25.35	17.90	7.95	8.55
2022-23	13.90	11.90	12.20	8.20

10.2.3. Availability of Audited Statements on the Institute Website. (5)

Availability of Audited Statement on website

The Audited statements for the last three years are available on the Institute Website **www.aamec.edu.in**.

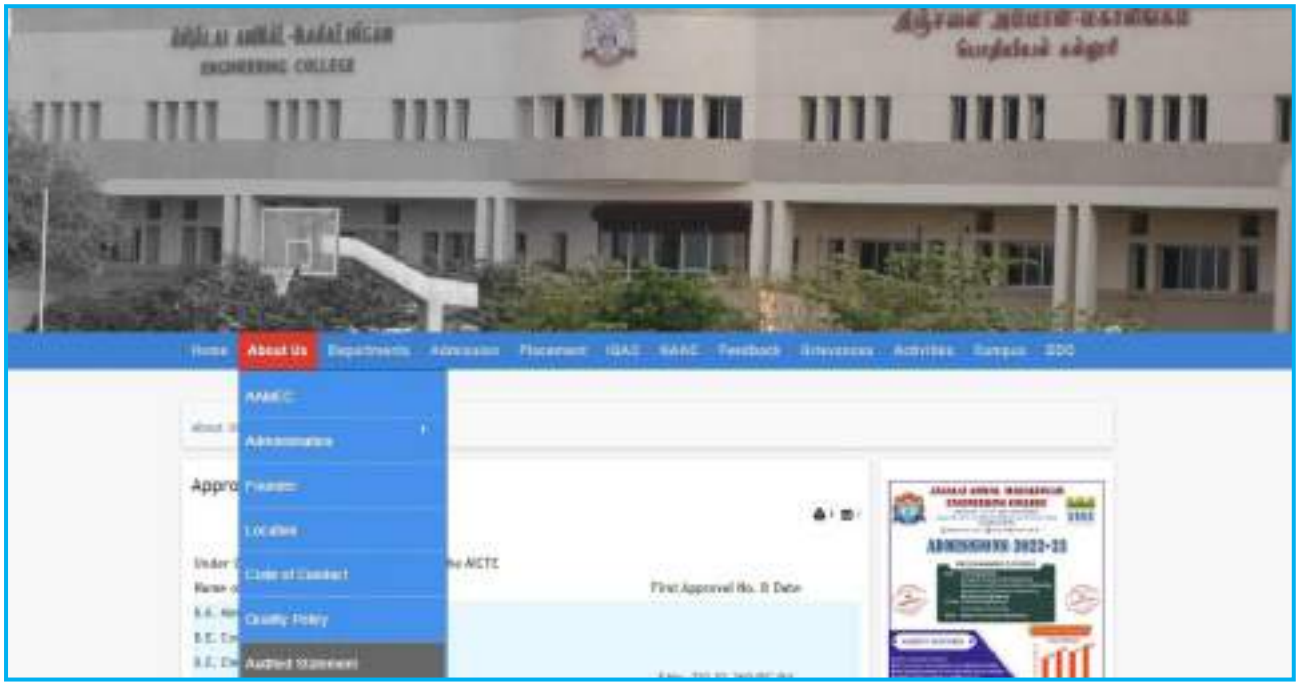


Figure: 10.2.3 Availability of Audited Statement on website

10.3 Programme specific Budget Allocation, Utilization (30)

10.3.1. (A) Quantum of Budget Allocation for Three Years (Rs.inLacs):

FINANCIAL YEAR 2023-24

Fee	Govt.	Grants	Other Sources 1.Interest on investment 2.Misc.Income	Recurring Expenditure including Salary	Non-Recurring Expenditure	Special Project/ Any other	Expenditure per student
25616550	0	0	0	6591349	20,00000	NIL	31819

FINANCIAL YEAR 2022-23

Total Income				Actual Expenditure			Total No. of students
Fee	Govt.	Grants	Other Sources 1.Interest on investment 2.Misc.Income	Recurring Expenditure including Salary	Non-Recurring Expenditure	Special Project/ Any other	Expenditure per student
2,47,46,100	0	0	0	7347588	20,00000	NIL	50291

10.3.1. (B) Adequacy of budget allocation (10)

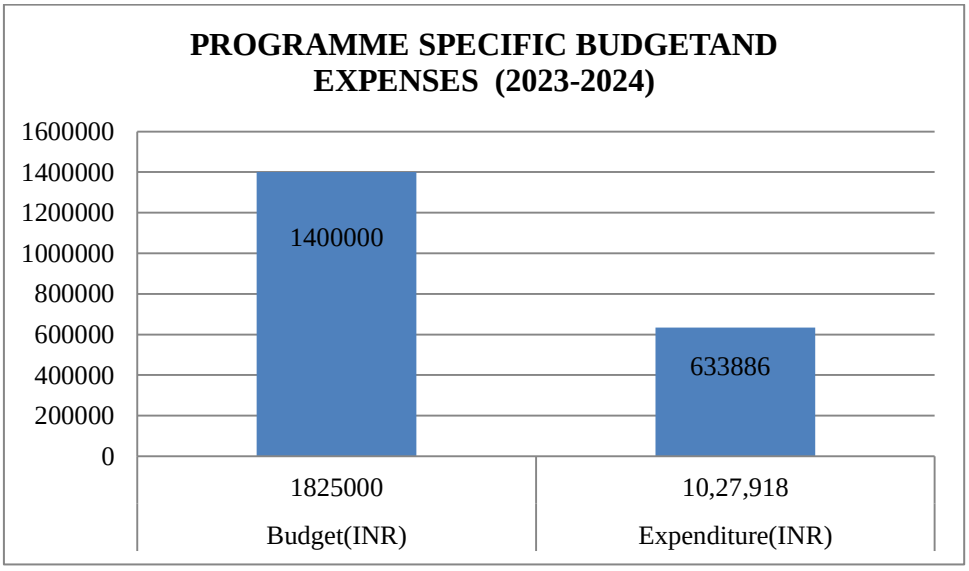
- As per the requirement of Institute New Labs were established and New Equipment's and accessories had to be procured.
- New Facilities were introduced for extension programmesofR&C Wing.
- Existing labs were upgraded and improved for ambience and facilities.
- Purchase of New Software's and Renewal of Software already exists.
- Purchase of E-Resources, E-Books and E-Journals.
- Faculty members were encouraged to attend faculty development programmes.
- Trainings programmes for non-faculty staff were held for up gradation of soft skill.

PROGRAMME SPECIFIC BUDGET AND EXPENSES (2022-23)

Items	BUDGETED IN 2022-23 (INR)	EXPENSES IN 2022-23 (INR)
Laboratory equipment	7,00,000	3,50,000
Maintenance And Spares	2,40,000	147736
R&D	10,000	2000
Misc. Expenses*	2,50,000	34150
Computer Software	2,00,000	1,00,000
Total	**14,00,000**	**633886**

PROGRAMME SPECIFIC BUDGET AND EXPENSES (2023-24)

Items	BUDGETED IN 2023-24 (INR)	EXPENSES IN 2023-24 (INR)
Laboratory equipment	3,00,000	2,05,000
Maintenance And Spares	7,00,000	1,14,000
R&D	10,000	3000
Misc. Expenses*	25,000	10,000
Computer Software	2,50,000	2,00,000
Internet Charges	5,40,000	4,95,918
Total	**1825000**	**10,27,918**



10.3.2 Utilization of Allocated Funds (Rs.incrores) (20)

FinancialYear	Budget(INR)	Expenditure(INR)	Percentageof Utilization
2023-24	1825000	10,27,918	56.32%
2022-23	1400000	633886	45%

The funds allocated have been well utilized for:

- Developing of lab facilities and upgradation of existing facilities.
- Purchase of equipment's for different labs
- Library resources and internet facilities
- Work shop maintenance and lab consumables.
- Training of faculty and non-faculty.

10.4 LIBRARY AND INTERNET (20)

10.4.1 Quality of Learning Resources (Hard/Soft)(10)

Table 10.4.1-a Quality of learning resources (hard/soft)

S.No.	Learning resources	Remarks/Description
	Library Services	Book Lending Services Reference Service OPAC (On Line Public Access Cataloguing Services) Journal and News Paper Service Question Bank Reprographic Service Internet & e-mail CD-ROM Lending Self-Reservation of Books Inter- Library loan
2.	Carpet area of library (in m^2)	1252.1991 sq.m
3.	Reading space (in m^2)	6061.89 sq. feet
4.	Number of seats in reading space	100
5.	Number of users (issue book) per day	50
6.	Number of users (reading space) per day	120

7.	Timings: During working day, weekend, and vacation	08.30 am to 05.30 pm
8.	Number of library staff	4
9.	Number of library staff with degree in Library	2
10.	Management Computerization for search, indexing, issue/return records Bar coding used	AutoLib software is used in the library. Issue/Return is through Bar code reader.
11.	Library services on Internet/Intranet INDEST or other similar membership Archives.	Yes, Available



ANJALAI AMMAL MAHALINGAM ENGINEERING COLLEGE

KOVILVENNI - 614 403

LIBRARY

Information as on Date.

BOOKS

S.NO	Subject & Branch	No.of Titles	No.of Volumes
01.	CIVIL	389	1519
02.	COMPUTER SCIENCE	1889	8124
03.	ELECTRONICS & COMMUNICATION ENGINEERING	1719	6281
04.	ELECTRICAL & ELECTRONICS ENGINEERING	1163	3597
05.	MECHANICAL	1908	5909
06.	CHEMICAL	1054	2431
07.	INFORMATION TECHNOLOGY	1147	3544
08.	MANAGEMENT	872	1646
09.	ENGLISH	731	1282
10.	MATHEMATICS	1041	3147
11.	PHYSICS	418	970
12.	CHEMISTRY	468	965
13.	GENERAL	1885	2892
14.	MCA	1402	4885
15.			
16.			
17.			
18.			
	TOTAL	15,313	44,703

Non Book Materials

CD'S: 2759

Video Cassettes: 188

Journals

01.	Total No. of Indian Journals	48	
02.	Total No. of Foreign Journals	48	
03.	Total No. of E-Journals	DELNET >	ESTC 889

Figure: 10.4.1.1 Availability of Books in AAMEC Library



Figure: 10.4.1.2 Students at AAMEC Library

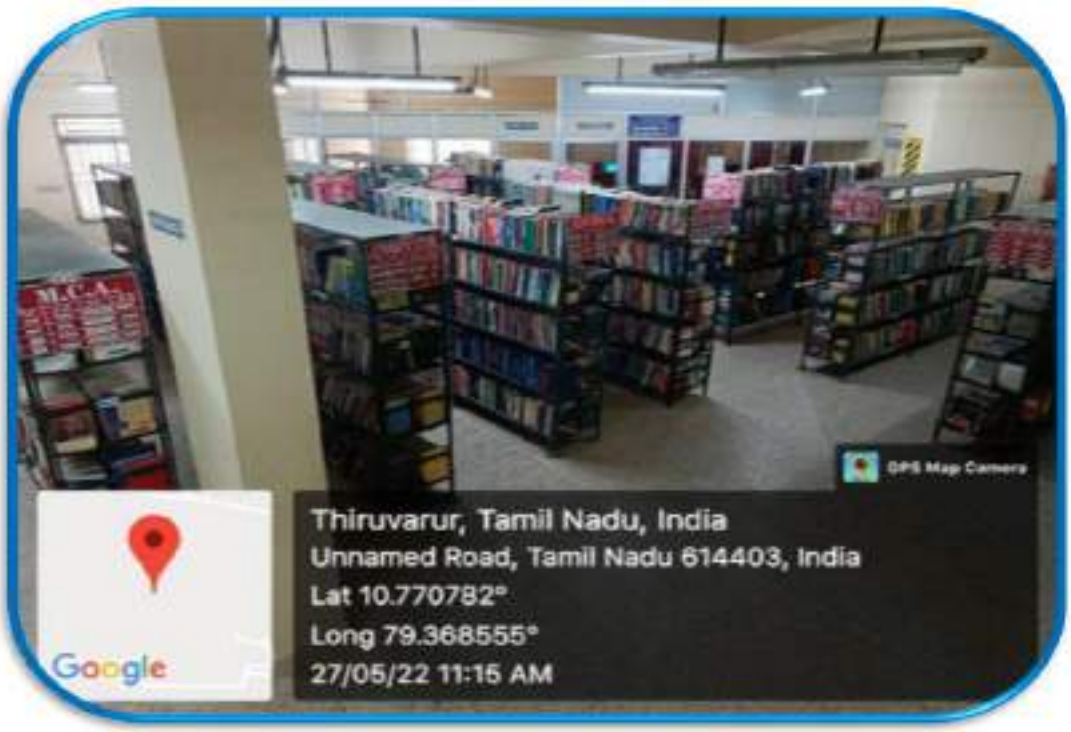


Figure: 10.4.1.3 Book arrangement by Category

Table 10.4.1-bTitles and volumes per title

Year	Number of New Titles Added	Number of New Volumes Added
2022-23	65	75
2023-24	156	156

Table 10.4.1-c Technical Magazines and Journals

Year	No. of Technical Magazines/ Periodicals	No. of Total Technical Journals subscribed	
		In Hardcopy	In Softcopy
2022-23	15	96	860
2023-24	04	96	860

Digital Library

- Digital Library Services Yes
- Availability of digital library contents (If available, then mention number of courses, number of e-books, etc. Availability of an exclusive server) Yes
- Availability of an exclusive server Yes
- Availability over Intranet/Internet Yes
- Availability of exclusive space/room Yes
- Average number of users per day 35



Figure: 10.4.1.4 Digital Library



Figure: 10.4.1.4.1 Digital Library



Figure: 10.4.1.4.2 Digital Library

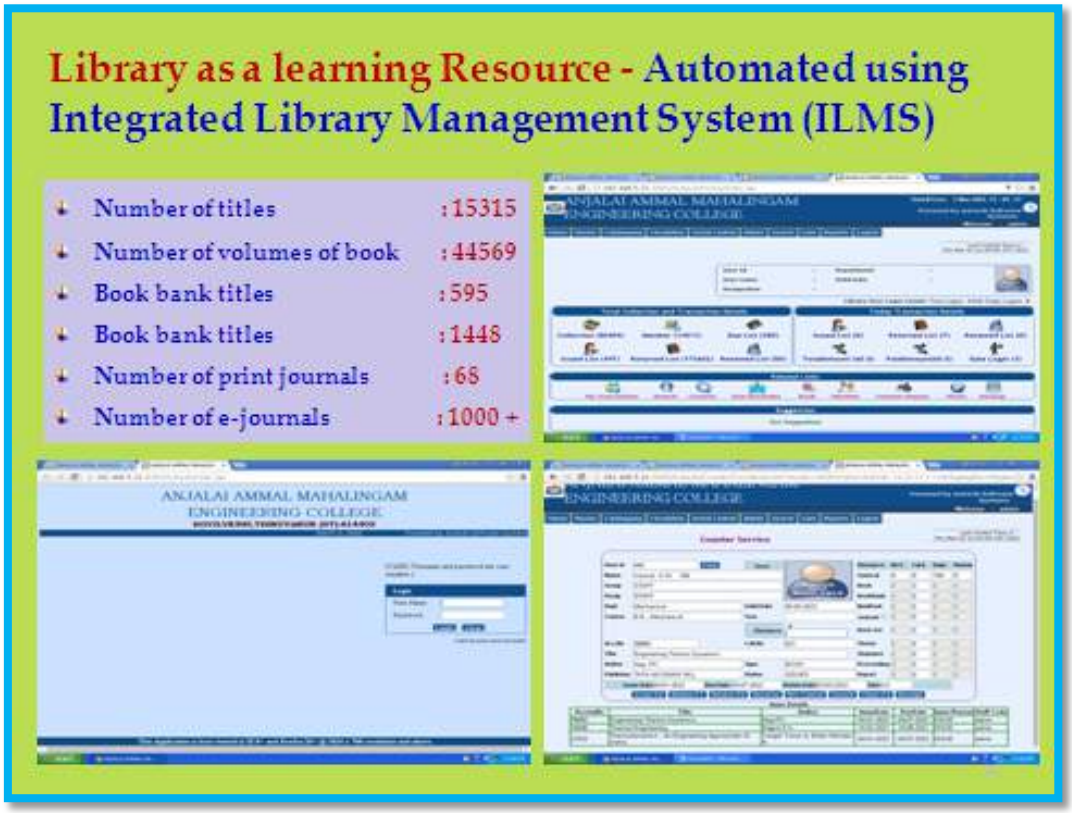


Table 10.4.1-d Library expenditure on books, Magazines/journals, and Miscellaneous contents

Year	Expenditure (in Rs.)			
	Book	Magazines/Journals (for hard copy subscription)	Magazines/Journals (for soft copy subscription)	Misc. Contents
2023-24	5,02,760	2,80,148	80,000	52,803
2022-23	78563	2,89,498	80,000	Nil

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RECEIPT

Subs No.: 1703

Date: 29/3/2023

Received with thanks from: Anjalai Ammal Mahalingam Engineering College, Thiruvarur Dist. (T.N.)

The Sum of Rupees: Twenty Seven Thousand Only

On Account of Subscription for the Year: 2023

By Cash/NEFT/DD/Cheque No.: 944132 Dated: 4/1/23

₹: 27000/-

For Serials Publications Pvt. Ltd.
Account Department

Proforma Invoice

inventi

Inventi Journals P Ltd
SCO 82, Minal Residency, J K Road, Bhopal-462023
+91-98270-89512(I)
E-mail: subscription@inventi.in, info@inventi.in
PAN: AACCI3010M
Corporate Identity No: U73100MP2010PTC023442

Order No : Inv/2022/e/10930
Date : 06-Dec-2022
Payment Mode : Pending
Subscription Period : 01-Jan-2023 to 31-Dec-2023

Subscriber : Library-Anjalai Ammal Mahalingam Engineering College
Address : Librarian, Anjalai Ammal Mahalingam Engineering College Kovilvenni, Thiruvarur Dt Tamilnadu – 614403

Delivery Address : Librarian, Anjalai Ammal Mahalingam Engineering College Kovilvenni, Thiruvarur Dt Tamilnadu – 614403

1. Inventi Impact Biomedical Engineering	Rs. 3300
2. Inventi Impact Cloud Computing	Rs. 3300
3. Inventi Impact Embedded Systems	Rs. 3300
4. Inventi Impact Soft Computing	Rs. 3300
5. Inventi Impact Software Engineering	Rs. 1950
6. Patent Journal Chemical Engineering	Rs. 2500
7. Patent Journal Information Technology	Rs. 2000
8. Patent Journal Petrochemicals	Rs. 2000

Total Amount : Rs. 21500/- Less Discount @ 10% on Rs. 2150/- Net Amount Payable : Rs. 19350/-

- *All payment should be done favouring "Inventi Journals Pvt. Ltd." online/multicity cheque/DD payable at SBI (Mawai Mall, Bhopal) A/c: 31891308646, IFSC: SBIN0010528
- The invoice refers to print subscription of the journals. With each journal (print version) online versions of the respective journals is free.
- Subscriptions are available on yearly basis. All journals are quaterely(4 issues/yr).
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Mobile : Vinay - 9324097701 / Chetna - 9769456595
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PROFORMA INVOICE

PINVOICE/2022-23/229 **November 24, 2022**

THE LIBRARIAN
DEPARTMENT OF LIBRARY
ANJALAI AMMAL - MAHALINGAM
ENGINEERING COLLEGE
KOVILVENNI , TAMILNADU
THIRUVARUR DIST - 614 403.

Being the amount for Subscription to journals / magazines for year 2023:

Sr #	Name of the Magazine	Publishers	Freq	Amount in Rs. for 1 year
1	Indian Journal Of Internet & Computer Research	Global Research	2	3500.00
2	Indian Journal Of Computer Graphics & Visualization	Global Research	2	3500.00
3	Indian Journal Of Electronics & Communication Engineering	Global Research	2	3500.00
4	Indian Journal Of Advances In Mechanical Engineering	Global Research	2	3500.00
5	Journal Of Modern Manufacturing Technology	Serial Publication	2	3000.00
6	Indian Journal Of Sustainable Civil Engineering	Serial Publication	2	3000.00
7	Iup - Journal Of Information Technology	IUP Publication	4	1200.00
8	International Journal Of Web Applications	DLine	4	4300.00
9	Indian Journal Of Computer Sciences	Indian Jrnl Of Mktg, New Delhi	6	2500.00
10	IETE Technical Review	IETE	6	5175.00
11	IETE Journal Of Research	IETE	6	5175.00
12	Journal On Electronics Engineering	i-manager Pub	4	3000.00
13	Industrial Automation (Print)	IED Communicati	12	6000.00
14	Manufacturing Technology Today	CMTI	12	1000.00
15	Iup - Journal Of Mechanical Engineering	IUP Publications	4	1200.00
			c/f	49550.00

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Sr #	Name of the Magazine	Publishers	Freq	Amount in Rs. for 1 year
			B/f	49550.00
16	Indian Journal Of Engineering & Materials Science	CSIR-NISCAIR	6	1600.00
17	Indian Journal Of Mechanical Engineering	Global Research	2	3500.00
18	Indian Journal Of Networks & Applications	Global Research	2	3500.00
19	Journal Of Advanced Research In Computer Engineering	Serial Publication	2	3000.00
20	Indian Concrete Journal	ACC limited	12	2100.00
21	Journal Of Indian Water Works	IWWA	4	200.00
22	Current Science	Indian Aca of Sci	24	3300.00
23	Resonance : Journal Of Science Education	Indian Aca of Sci	12	1300.00
			Total:	68050.00

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PROFORMA INVOICE

APEX
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Billing Address
Dr. S. M. Ramasamy - Principal
Anjalai Ammal Mahalingam Engineering College
Kovilvenni
Tiruvarur - 614403 , Tamil Nadu,India
Tel : 04374- 282516,
Email : principal@aamec.edu.in, ramadoss.ece@yahoo.co.in
GSTN No :

Shipping Address
Ravi Ramadoss , Librarian
Anjalai Ammal Mahalingam Engineering College
Kovilvenni
Tiruvarur-614403
Tamil Nadu - India
Tel : 9566004747
Email : ramadoss.ece@yahoo.co.in

Invoice No: PI 22/001472
Date:15-Dec-2022
Expiry Date: Rates are valid for 30 days only
Customer Code:3968
GSTN No: 21AAHCA5318P1ZU
Reference#:

Sr	Title/Publisher	Code	Freq.	Start Date / End Date	Volume (Year/Vol)	Curr	Disc / Rate	Copies	GST No.	Basic Cost Rate	Basic Cost Amt	Publisher's Part Rate	Publisher's Part Amt	Total Amt
1	Global Journal of Computer and Digital Techniques - ISSN Enriched Publications(2799)	11140	3	01-Jan-2022 31-Dec-2022	3.00 (Vol)	INR	0.00	1.00	0.00	3,500.00	3,500.00	0.00	0.00	3,500.00
2	International Journal of Human Computer Interaction and Data Mining - ISSN Advanced Research Publications Pvt Ltd(1519)	13852	2	01-Jan-2022 31-Dec-2022	2.00 (Vol)	INR	0.00	1.00	0.00	3,000.00	3,000.00	0.00	0.00	3,000.00
3	Journal of Advance Research in Cloud Computing,Virtualization and Data Applications - ISSN Advanced Research Publications Pvt Ltd(1519)	13853	2	01-Jan-2022 31-Dec-2022	2.00 (Vol)	INR	0.00	1.00	0.00	3,500.00	3,500.00	0.00	0.00	3,500.00
	Totals		7		7.00				0.00		10,000.00		0.00	10,000.00
													Add: Publishers Postage	0.00
													Net Amount	10,000.00

AMOUNT IN WORDS : TEN THOUSAND FIVE HUNDRED RUPEES

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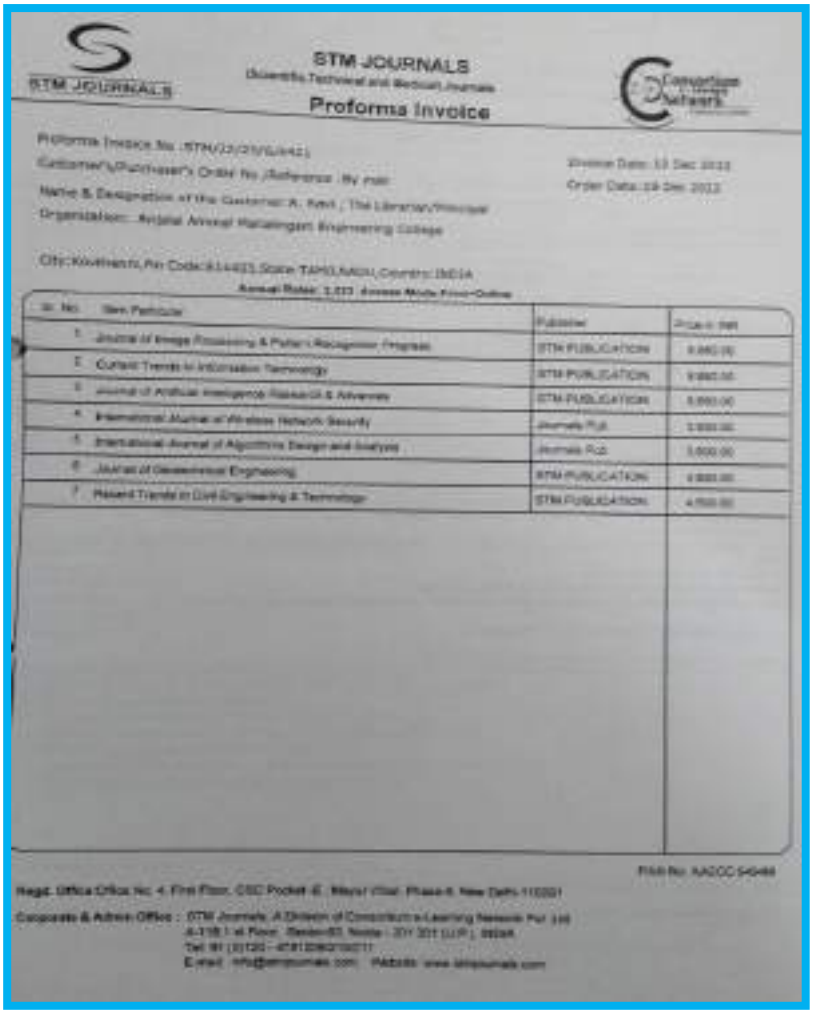
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New Remarks
1. Annual Journal of Human Computer Interaction and Data Mining - June Only



STM JOURNALS
Scientific, Technical and Medical Journals

Proforma Invoice

Proforma Invoice No. :STM/22/12/GJHCI
Customer's/Purchaser's Order No./Reference : By mail
Invoice Date: 13 Dec 2022
Order Date: 13 Dec 2022
Name & Designation of the Customer: R. Ravi , The Librarian/Principal
Organization: Anjalai Ammal Mahalingam Engineering College
City: Kovilvenni, Pin Code:614403, State: TAMILNADU, Country: INDIA
Annual Rates: 3,333 Access Mode: Free+Online

Sr. No.	Item Particular	Publisher	Price in INR
1	Journal of Image Processing & Pattern Recognition Progress	STM PUBLICATION	0.00
2	Current Trends in Information Technology	STM PUBLICATION	0.00
3	Journal of Artificial Intelligence Research & Advances	STM PUBLICATION	0.00
4	International Journal of Wireless Network Security	Journals Pub	0.00
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PROFORMA INVOICE

Subscription Period : January 2023 - December 2023

To,
The Principal,
Anjalai Ammal Mahalingam Engineering College
NH67 Tanjore-Velankanni Main Road, Kovilvenni,
Tamilnadu, Pin Code-614 403
GST No. :

Proforma Invoice : MAT/PI/202212/734
Proforma Invoice Date: 03/12/2022
Order No:Renewal
Order Date: 03/12/2022

Sr.No	Journals Name	Frequency	Format	Qty	Amount
1	Journal of Data Mining and Management	Triannual	Print+Online	1	2500.00
2	Journal of Water Resources and Pollution Studies	Triannual	Print+Online	1	2500.00
3	Journal of Civil and Construction Engineering	Triannual	Print+Online	1	2500.00
4	Journal of Structural Technology	Triannual	Print+Online	1	2500.00
5	Journal of Communication Engineering and Its Innovations	Triannual	Print+Online	1	2500.00
			Sub Total :		12500.00
			Discount @20.00 % :		2500.00
Amount In Words(In Rs:) : Ten Thousand ONLY			**Total :**		10000.00

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12th December, 2022

To
Librarian
Anjalai Ammal Mahalingam Engineering College,
Kovilvenni-614 403
Thiruvarur-Dt

Dear Sir

Sub: Subscription of National International Journals Pro-forma sent for 2022

Department of Civil Engineering Indian Journals

S.No	Titles	Issues	Subs Amount
	Department of Civil Engineering Indian Journals		
1	Indian Journal of Civil Engineering	2 Issues	3000.00
2	Indian Journal of Geotechnics and Environment	2Issues	3000.00
3	International Journal of Advances in Civil Engineering	2 Issues	3000.00
4	International Journal of Civil Engineering	2 Issues	3000.00
5	International Journal of Civil Engineering and Construction Technology	2 Issues	3000.00
6	International Journal of Mining and Mineral Processing	2 Issues	3000.00
	International Journal of Mining and Mineral Processing	2 Issues	4000.00

S.No	Titles	Issues	
	Department of MCA Indian Journals		
1	Journal on Computer Science	4Issues	3000.00
2	Journal of Cloud Computing	4Issues	3000.00
3	Journal of Soft ware Engineering and Simulation	2Issues	3000.00
4	Journal of Information Technology	4 Issues	3000.00
5	Journal on Software Engineering	4 Issues	3000.00
6	Journal of Computer Science	4 Issues	3000.00
			36000.00
	Rs		

Rs. 36,000.00 Thirty six Thousands only

Proforma Tax Invoice

DELNET-Developing Library Network
Anjalai Ammal Mahalingam Engineering College
Kovilvenni
Thiruvarur Distt.
Pin - 614403
Tamil Nadu

Date: 21-November-2022
Mode Of Payment: DD/Multi-City-Cheque/NEFT
Membership No: MA-272

S. No.	Particulars	GST RATE	Amount ₹
1	DESTQ E-Journals Package 2021-24	18%	97,797.00
			12,203.00
	Total		₹ 80,000.00

DELNET Bank Details
A/C Holder Name: DELNET
Bank Name: Central Bank Of India
Branch: Khan Market, New Delhi-110003
A/c No.: 1863616052 (Saving Account)
IFSC Code: CBIN0282210

₹ EIGHTY THOUSAND ONLY

E & O.E

Taxable Value	Integrated Tax	
	Rate	Amount
97797.00	18%	12203.00

SAC CODE :- 998431

₹ NINETY TWO THOUSAND TWO HUNDRED THREE ONLY

For Bank Transfer

Kindly remit the amount through NEFT/RTGS only DO NOT DEPOSIT THE CASH DIRECTLY TO DELNET BANK A/C.

Remarks: PLEASE NOTE THAT IN ORDER TO FACILITATE ACCESS TO E-JOURNALS BY MEMBERS, PAYMENT FOR THIS INVOICE IS BASED ON BEHALF OF CONSORTIUM LEARNING INSIGHT LTD.

DELNET's PAN: AAAAD0080J

for DELNET: Developing Library Network
Authorised Signatory

DD/PAY ORDER SHOULD BE IN FAVOUR OF "DELNET". The DD should be made payable at "New Delhi" bank branch.

"This is a Computer generated Invoice - The signatures are not required."

10.4.2 Internet (10)

Name of the Internet provider : RAIL WIRE/BSNL (OFC)
Available bandwidth : 2023-24 (500 Mbps Leased Line)
Wi-Fi availability : Yes

Internet access in labs, class rooms, library and offices of all Departments are provided in detail in the following table. Security arrangements regarding CCTV arrangement and number of CCTV availability and monitoring details are also provided in the following table CCTV camera section.

Table 10.4.2-A Network Server, Firewall, CCTV Facilities

S.No.	Item Name/Model	Description	Quantity
1	IBM LENOVO X3650 M5 2U RACK SERVER	Intel Xeon 6 Core E5-2630 v2 @ 2.6GHz 15M 80W Processor 32 GB ECC DIMM Memory, 2 x IBM 600GB 10K 6Gbps SAS 2.5" SFF G2HS HDD Serve RAID M5100 Series Battery Kit with 512 MB cache Ultra Slim Enhanced SATA Multi-Burner 8 port KVM switch	4
2	IBM NAS STORAGE	2U Rack Mount NAS Box 16TB Raw Disk Space (4 X 4 TB) 12 Bays APP PX12-400R SC, 16TB 4HDX4TB WW	1
3	RACK SERVER IBM	EM 64 T(Dual Processor) 2 GB DDR 2 PC 3200 ECC DIMM Memory expandable to 16 GB,3 x 146.8 GB Ultra320 SCSI SSL HDD	4
4	DELL POWER EDGE 2900 SERVER	Intel xeon E5430 12 MB L2 cache 8GB ECC RAM 17" LCD Monitor 16x SATA DVD+/- RW Drive 6X145GB SAS HDD	12
5	DELL POWER EDGE T 430 SERVER	Intel Xeon E5-2620 v4 2.1 Ghz 20Mbcache,8.0GT/s,2133MHz 2X16 GB RDIMM , 2400 MT/s dual Rank,5X600 GB 10K RPM SAS 2.5 in Hot Plug HDD 3.5 in HYB CARR 5 RAID 5 for H330/H730/H730P,DVDRW SATA internal Dell keyboard with mouse, Dell 20" monitor	03
DESKTOP			

1	**DELL 5090**	Intel Core i5-11500 16GB(2X8GB) DDR4 Memory,64GB Support,1TB SATA HDD, Dell optical mouse with keyboard,2GB Graphics Card	93 02/03/2022
FIREWALL			
1	Watch Guard Fire Fox M590	Web Blocker Subscription Gate Way Anti-Virus Application control Reputation Enable Defense Spam Blocker intrusion prevention service Multiple ISP Support Live Security Service	1
2	SophosXGS 2100	Firewall version SFOS 19.5.3 MR-3	1
LAN AND WIRELESS FACILITY			
1	10G NETWORK CONNECTIVITY	12 Port 10G Switch with all 10g Copper Ports, PCI Express 10G Interface card for Server	1
2	INVENTUM - Wi-Fi Controller	Wi-Fi & Internet	1
3	DLink DGS-3000-28L Switch (for RailTel connectivity)	28-Port L2 Managed Gigabit Switch, 24 x 10/100/1000Mbps Ports and 4 x SFP Ports,RJ-45	1
4	CISCO 4400 Series Router	Up to 200 Mbps- GE Ports – 3 (Gigabyte),RJ 54 Ports – 3 (Gigabyte),Fiber SFP Ports – 3(Gigabyte)for Leased Line connection	1
4	CISCO 3750 Series L3 Switch	24 Ethernet ports and supports connections to up to 25 wireless access points	1
5	CISCO 2960-Series L2 Switch	24- and 48-port Catalyst 2960 switches 10BASE-T, Ethernet traffic from other network devices.	9
CCTV Camera			
1	2021-2022	DVR model 1 : Dahua DVR model 2 : LG DVR 3 : Panasonic	DVR-17 CCTV - 177
2	2020-2021	DVR model 1 : Dahua DVR model 2 : LG DVR 3 : Panasonic	DVR-15 CCTV - 192
3	2019-2020	DVR model 1 : HD Panasonic DVR model 2 : LG DVR DVR 3 : LG	DVR-15 CCTV - 192

4	2018-2019	DVR model 1 : HD Panasonic DVR model 2 : LG DVR DVR 3 : LG	DVR-15 CCTV - 192
Note: AAMEC campus is enabled with fibre optic network and Wi-Fi connectivity			

Table 10.4.2-B Internet Access Provided Locations (LAN)

S.No.	Department	Department Office	Laboratories	Class Rooms
Academic Department				
1	Civil Engineering	HOD office, Staff room	Civil Lab	Available
2	Computer Science Engineering	HOD office, Staff room	CSE Lab	Available
3	Chemical Engineering	HOD office, Staff room	Process Control Lab	Available
4	Electrical and Electronics Engineering	HOD office, Staff room	Simulation Lab	Available
5	Electronics and Communication Engineering	HOD office, Staff room	ECE Lab	Available
6	Information Technology	HOD office, Staff room	IT Lab	Available
7	Mechanical Engineering	HOD office, Staff room	CAD Lab	Available
8	MCA	HOD office, Staff room	MCA Lab	Available
9	Physics	HOD office, Staff room	-	Available
10	Chemistry	HOD office, Staff room	-	Available
11	CC1	Browsing centre	CC1 Lab	Available
12	CC2	Networking Lab	CC2 Lab	Available
13	Library	e-Library	Library	Available
Admin/Support Department				
1.	Principal Office			
2.	Women Empowerment Cell			
3.	Exam Cell			
4.	ED Cell			
5.	Training & Placement			
6.	Boys Hostel			
7.	Girls Hostel			
8.	Transport Office			
Wi-Fi Facility				

1	All Academic Blocks
2	Boys Hostel
3	Girls Hostel
4	Central Library
5	Conference Hall
6	Principal Office



ANJALAI AMMAL - MAHALINGAM ENGINEERING COLLEGE

(Approved by AICTE and Affiliated to Anna University, Chennai)

KOVILVENNI - 614 403, THIRUVARUR Dist, TAMILNADU.

Off : 04374-232816, 232606
E-mail : principal@aamec.edu.in
Web : www.aamec.edu.in

To

M/s RailTel Corporation of India Limited,
CAO(CN) MS /Southern Railway office,
New Building 4th floor, P.H Road, Egmore
Chennai, 600008

Kind Attnd: Mr. S.Kaliyaperumal, Enterprise Business, RailTel Corporation of India Ltd
8428037322

Sub: Purchase order for supply of Internet Leased Line (ILL services)- reg

Herewith, Purchase order for providing 500 Mbps Internet Leased line to our institution is attached for your perusal and further action.

You are requested to complete the work for providing 500 Mbps Internet Leased line on or before March 15th positively.

Principal

Principal,
Anjalai Ammal Mahalingam
Engineering College,
Kovilvenni - 614 403

RailTel Corporation of India Limited
(A Government Of India Undertaking, Ministry Of Railways)

Tax Invoice

RCIL Address for state Tamilnadu:- RailTel Corporation of India Limited,No.275e,4th Floor,EVR Periyar High Road,Office Chief Administrative Office - Southern Railway Egmore-Chennai-600008

CUSTOMER BILL TO
Customer Name: Anjalai Ammal Mahalingam Engineering College
Address: Anjalai Ammal Mahalingam Engineering College Anjalai Ammal Mahalingam Engineering College, Kovilvenni, Thiruvarur Dist., Tamilnadu, 614403
CUSTOMER Supply Address
State Code: 33 **and State :** Tamilnadu

Invoice No. :	2133119020
Invoice Date :	17-MAR-2022
Payment Terms :	IMMEDIATE
Customer PO No.	AAMEC/BLL/2022-01
Service Type :	BW
Sales Order No.	6100038530
Billing Cycle :	Annual
Billing Period :	17-MAR-2022 TO 16-MAR-2023

Customer Details	
Customer PAN No. :	XXXXXXXXXX
Customer TAN No. :	CHEM07411F
Customer GSTIN/UIN No.:	33XXXXXXXXXXXX

RailTel Details	
Bank Name- Union Bank of India	IFSC Code - UBIN0532738
Bank Account No.	327301010273007
GSTIN : 33AABCR7176C1ZK	PAN: AABCR7176C

S.No	Goods/Service	HSN/ SAC	Location from	Location To	Circuit ID	DOC	Quantity	UOM	Unit Rate	Billing Amount
1	Internet Port Charge - Gold (1:1) - 300 Mbps	998422	Anjalai Ammal-Mahalingam Engineering college, Thiruvarur	NA	580558	17-MAR-2022	1	MB	1050674	1050674

Whether Tax is Payable under Reverse Charge (Yes/No)

Amount in words: Twelve Lakh Thirty-Nine Thousand Seven Hundred Ninety-Five Only

Comments: Comments-

Gross Value	1050674
CGST@9%	94560.66
SGST@9%	94560.66
Total Invoice Amount	1239795.00

T. LAKSHMIPATHI
Asst. General Manager
RailTel Corporation of India Ltd.
Trichy

Attested

[redacted]

Principal,
Anjalai Ammal Mahalingam
Engineering College,
Kovilvenni - 614 403