

# GENERATION APPRENTICESHIP

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## PRINCIPAL ENGINEER (DENG)

Lero, the Irish Software Research Centre and CONFIRM Smart Manufacturing have partnered with the University of Limerick (UL) to deliver Ireland's first qualification at level 10 (PhD) funded through the national apprenticeships programme: The Professional Doctorate in Engineering (DEng).

The aim of a Professional Doctorate programme is to produce a qualification which, whilst being equivalent in status and challenge to a PhD, is more appropriate for those pursuing professional rather than academic careers. The DEng acknowledges that significant research takes place within the practitioner's workplace. Candidates are required to make a contribution to both theory and practice in their field, and to develop professional practice by making a contribution to (professional) knowledge.



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OLLSCOIL LUIMNIGH

Apprenticeship	Principal Engineer (DEng)
NFQ level	Level 10 Major Award
Qualification on completion	Professional Doctorate in Engineering (DEng)
Duration	4 years
Industry Lead	Lero, the Irish Software Research Centre CONFIRM Smart Manufacturing
Education Provider	University of Limerick
Delivery	On Campus tutorials Distance learning Peer to peer learning community of practice On the job application through projects
Applications By	Mid-December for a January start

### For Professionals who wish to:

- Evaluate the relevance of current and emerging theories and practices within your area.
- Formulate effective solutions to complex, real-world problems common to your field.
- Apply current research to practical problems in the workplace.
- Design rigorous research that expands the professional body of knowledge in your field.

## How a professional doctorate differs from a traditional doctorate

The **traditional doctorate**, the PhD programme focuses on preparing candidates for an academic career and is thus focused on training people to rigorously address scientific problems which can result in a contribution to knowledge that can be published in the peer-reviewed scientific literature.

**Professional doctorates** recognise the existence of research activities which can be described as professional practice. The context for this DEng programme is the practitioner workplace and the focus is on solving real-world problems faced in the daily work-place. The scope of these problems can be sufficiently large to be addressed in a significant piece of research planned and conducted over a period of time and which can ultimately result in a DEng award.

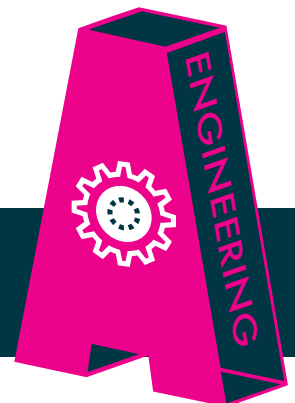
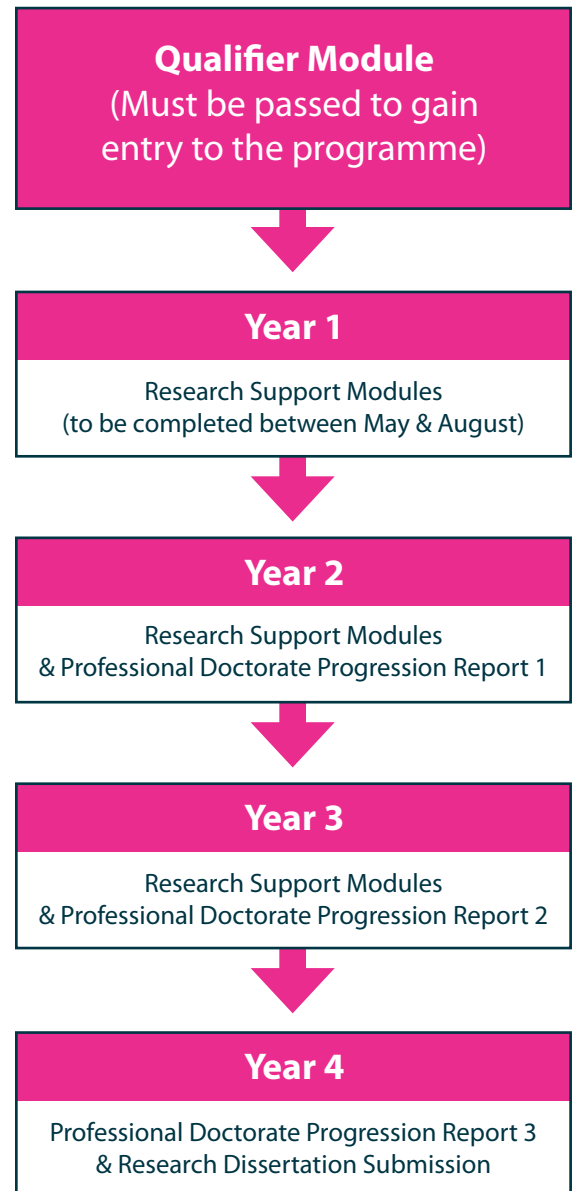
## How it Works

This four year programme is structured for blended delivery of online learning and face to face sessions which minimizes time 'off the job'. You must successfully complete the qualifier module (PT8001) to be offered a place on the DEng. The programme includes:

- The PT8001 is the Professional Portfolio qualifier module. This will give you an understanding of the structure of the Professional Doctorate, how to develop a professional portfolio and how to deliver a unique contribution to professional knowledge. You will be required to identify a problem that is significant to your industry or profession and to propose an appropriate approach to solving this problem.
- 270 credits of work. The bulk of the credits, 196 are allocated to the output of your in-company research. This is delivered as a dissertation as is the culmination of your work.
- 12 modules delivered over four years combining traditional distance education with online learning and approximately 4 days face-to-face per semester.
- A dedicated supervisor to support participants.
- Participation in a Community of Practice. This will allow participants to interact and engage in peer-to-peer learning activities.
- Support from an industry mentor within the company throughout the apprenticeship.

## Entry Criteria

- Employers must go through an approval process and commit to support the apprentice throughout the programme
- Candidates would typically hold a 2.1 honours degree in a relevant area and five years' experience.
- The successful completion of the qualifier module (Professional Portfolio PT8001) prior to being offered a place on the programme



For further information on how to apply email [apprenticeships@ul.ie](mailto:apprenticeships@ul.ie)  
[www.ul.ie](http://www.ul.ie) | [www.apprenticeship.ie](http://www.apprenticeship.ie)