

# FUTURE PROFESSIONALS SERIES

Continuing engineering education for professional development and career advancement



# CPD Certificate in Professional Engineering

## Programme duration:

Six months, part-time.

## Award:

A fully-accredited Level 9 CPD Certificate in Professional Engineering.  
Five European credits (ECTS).

## Programme overview:

This stand-alone Level 9 Certificate programme has been designed in collaboration with leading employers to allow graduates to get to grips more quickly with the professional standards expected of those working in engineering-led teams and organisations. Participants gain an understanding of what is expected of them as young professionals, how they should behave in the workplace and what they can do to accelerate their professional development and career prospects.

## Entry requirements:

Graduate applicants must be members of Engineers Ireland and hold a minimum qualification of an NFQ Level 8 Honours Degree in Engineering (or equivalent). All applicants must be in a position to apply insights and learning on tasks and projects within their work organisations.



## Programme structure:

The Certificate programme is delivered on a part-time basis involving six mandatory classroom sessions, approximately one weekday per month, for six months.

## Programme content:

- Essential Skills of a Future Professional:
  - Progressing from full-time study to the workplace
  - Learning how to learn
  - Collaboration and teamwork
  - Ethics in engineering
  - Professionalism in the workplace
  - Stress Management
- Time Management, Prioritisation and Organisational Skills
- Effective Communication and Presentation Skills
- An Introduction to Project Management
- Technical Report Writing
- Innovations in Excel for Engineers



## Programme features:

The unique teaching and learning methodologies that are used during both the Certificate programme and the Diploma programme (opposite) include:

### ■ State-of-the-art facilities at Engineers Ireland supported by:

- Access to EBSCO: the world's leading academic research portal providing tens of thousands of cutting-edge print and e-journals, e-packages, research databases, e-books and more.
- Online learning management system: Engineers Ireland's virtual learning environment allows self-paced learning with particular emphasis on materials which can prime participants to get the most from the classroom sessions and then provide exercises, materials and recommended readings after formal class time.

- **Expert tutors:** all tutors have been selected for their industry expertise, their acknowledged contribution to the profession of engineering and/or their unique knowledge at the forefront of a chosen field.
- **Team-based learning:** a dozen or more engineers from different organisations of different sizes from different sectors will take part in each class.
- **Mentoring:** each student is supported by a workplace mentor to guide and optimise their learning.
- **Learning contract agreements:** these are used to ensure the transfer of learning from each module component to the workplace in a manner that allows for a measurable and verifiable improvement in competence.

# CPD Diploma in Professional Engineering

## Programme duration:

Twelve months, part-time.

## Award:

A fully-accredited Level 9 CPD Diploma in Professional Engineering.  
Thirty European credits (ECTS).

## Programme Overview:

This stand-alone Level 9 Diploma programme has been designed in collaboration with leading employers to specifically address gaps in knowledge, skills and behaviours across technology management, business acumen and engineering execution. The programme is designed for those who are committed to gaining the higher-order skills and abilities required to operate in new or unfamiliar contexts, such as handling complexity, and are linked to employment as a senior professional or manager with responsibility for the work output of teams.

## Entry requirements:

Applicants are required to have a minimum of three years' relevant work experience in an engineering-led environment and to be in relevant full-time or part-time employment. All applicants must be members of Engineers Ireland and hold a minimum qualification of an NFQ Level 8 Honours Degree in Engineering (or equivalent).

## Programme structure:

The Diploma programme is delivered on a part-time basis involving classroom sessions, project work, assignments, research and workplace mentoring.

The major building blocks en route to high-level engineering competence are covered across five core modules over a 12-month period.

At the start of the Diploma, issues are explored at the level of the individual practitioner, the level of the group or the team, and the relevance to the participants' organisation. Participants will have at their disposal a wide range of core skills and competencies, new tools and techniques together with fresh conceptual frameworks for the analysis and understanding of engineering-led solutions.

## Strategic-level thinking

The programme then moves to considering higher-order engineering issues in the light of the new insights gained. It concludes by taking the analysis, the exercises and practices to a strategic level, focusing on the reality of day-to-day engineering operations, through a self directed team research project, based on a selected 'real world' organisational issue.

CPD Diploma: Module Codes and Titles	CPD Diploma: Module Components	Credits
PPP1: Engineering Project Management	Project Management 1 Project Management 2	5 ECTS
PPP2: Effective Leadership: Analysis to Action	Statistical Analysis Leadership and Management Skills Negotiation and Influencing Skills	5 ECTS
PPP3: Contracts and Delivery Methods	Lean Principles for Professional Engineers Contracts, Claims and Dispute Resolutions	5 ECTS
PPP 4: Finance and Risk Analysis	Communication and Presentation Skills Finance for Professional Engineers Risk Management	5 ECTS
PPP 5: Strategic Execution: Team Project <i>Including preparation to become a Chartered Engineer</i>	Research and Analysis Self-directed teamwork Final Project Paper and Presentation	10 ECTS

## PROJECT MANAGEMENT PROFESSIONAL (PMP) QUALIFICATION

All Diploma participants complete 35 hours of formal project management education, the prerequisite to sit the Project Management Professional Certificate exam in order to achieve the internationally recognised title of Project Management Professional (PMP).



## What participants say...

*"I found the CPD Certificate in Professional Engineering to be very beneficial. From my participation in this programme, I have gained a wealth of knowledge in aspects that can improve my day to day work, accelerate my professional development and improve my career prospects. I would highly recommend the CPD Certificate in Professional Engineering to fellow engineers."* **Declan Gavigan MIEI, Research & Development Programme Manager, OpenHydro Technology Limited**

*"I would absolutely recommend the CPD Certificate in Engineering to other graduates. It helped me immensely in my transition from college to a working environment. I learned many lessons from the programme which lay a fantastic foundation for my work ethic and work standards."* **Felix Finke MIEI, Graduate Assistant Project Manager, National Development Finance Agency**

*"I have completed both the CPD Certificate and CPD Diploma in Professional Engineering and I would highly recommend both programmes to engineering graduates. The CPD Certificate helped my transition from college to the world of work and gave me a deeper understanding of the required approach and behaviours of a new recruit designed in tandem to meet my employer's needs. The CPD Diploma made me realise that the academic education given in college was just the beginning, and that career-relevant continuing professional education is critical for career development."* **Bernadette McManamon MIEI, Junior Civil Engineer, Corrib Gas Project**

## What employers say...

*"The CPD Certificate and CPD Diploma in Professional Engineering play an important part in building on an engineering education and assimilating young graduates into the work phase of their careers and onwards towards Chartered Engineer status. Many practical and personal skills are delivered by expert tutors and through team assignments with demonstrated workplace application. This ensures participants can make an early impact in their chosen field, career and organisation."* **Michael Loughnane MIEI, Manager, Senior Leadership Development, Group People & Sustainability, ESB**

*"We have found the CPD Certificate in Professional Engineering is an excellent way of assisting our graduates to transition and tune their skills into becoming a professional engineer. The course prepares them for the 'real' working environment and gives them confidence to perform to their best as their career develops with us."* **Edmond McDonnell, HR Manager, Irish Cement Limited**

Organisations that have supported individuals to attend these programmes include:

**AECOM**



**Bristol-Myers Squibb**



**Energy for  
generations**



**ROD**  
ROUGHAN & O'DONOVAN



**openhydro**<sup>TM</sup>  
— a **DCNS** company

To view full details including entry requirements, please go to:

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