



CONTINUING PROFESSIONAL DEVELOPMENT (CPD) ENGINEERING LEARNING & DEVELOPMENT: A WORLD OF OPTIONS

Welcome

At Engineers Ireland we have developed a programme of impactful courses that can support your development at the various stages of your career in engineering. They will provide you with the skills and knowledge you need to realise your full potential and that of your organisation. Our programmes offer:

- Relevant tailored training specifically designed for engineers and technicians
- A pool of expert tutors who bring their leadership and experience as practitioners to our courses
- All courses are interactive and tutors will show you how to apply practical tools directly to your own work environment
- All courses are CPD approved and linked to the required competence development for professional titles

We continually review our course offerings based on the feedback we receive from our members and from engineering employers who participate in our regular Training Needs Analysis survey. This has led to our widest ever range of collaborations and partnerships to ensure industry leading expertise is available to you on our programmes and specialist seminars. More and more companies are choosing to utilise our range of in-company training programmes that can be tailored specifically to the needs of your organisation and can be delivered where and when it is convenient for you. Wherever you are on your learning journey – as an individual or as an organisation – I am confident you will find an approach here to suit your needs. If you don't find exactly

what you need, just let us know and we will work with you to provide a suitable solution. Please contact us at **cpdtraining@engineersireland.ie** if you have any questions.



Caríosa Kelly

Chartered FCIPD
CPD & HR Director
Engineers Ireland

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Your Guide to Continuing Professional Development

Continuing professional development (CPD) will be mandatory for all non-student members of Engineers Ireland, in line with best international practice, from January 1st 2017. A minimum of five days' /35 hours' CPD will be required per annum, involving a cycle of planning, recording and reflection.

Engineers Ireland has published a guide to inform members about the key principles of CPD in order to ensure that as a member your professional development activities are of real value to you. This guide should be read in conjunction with the Engineers Ireland Code of Ethics which documents the standards of ethics and conduct set by Engineers Ireland, applying to all members, at all career stages.

This guide covers topics such as:

What is CPD?

Why is CPD important?

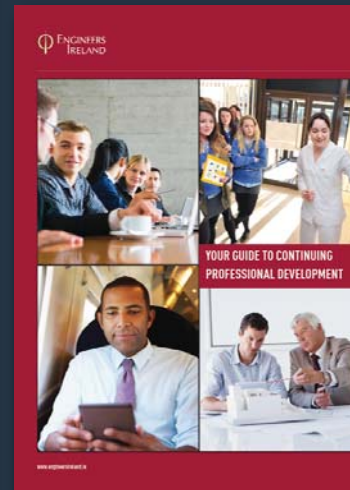
What counts as CPD?

How to plan your CPD

What will happen in 2017?

The guide can be found on our website here:

www.engineersireland.ie/cpd/brochures



What are Registered Professional Titles?

Achieving your registered professional title is an important milestone for any engineer or technician. A registered professional title from Engineers Ireland provides peer reviewed and internationally recognised formal recognition of your professional competence. It is an accolade associated with the very best of the engineering profession.

Our courses are designed to help you obtain and maintain the five competences for your professional title.

Chartered Engineer (CEng):

- C1.** Knowledge and Understanding
- C2.** Application of Knowledge
- C3.** Leadership: Technical, Commercial and Managerial
- C4.** Communication & Interpersonal Skills
- C5.** Professional Conduct

Engineering Technician (EngTech):

- T1.** Technical Judgement
- T2.** Contribution to design, development, manufacture, commissioning, operation and maintenance of products, equipment, process and services
- T3.** Communication and interpersonal skills
- T4.** Personal and professional responsibility
- T5.** Safe working practices

For further information on professional titles, please contact the Membership Team at 01 6651 334 or email membership@engineersireland.ie

SECTION 1



CPD Programmes and Seminars – How and Why?

Every year Engineers Ireland invests valuable time and research into generating a well-rounded and comprehensive training programme spanning technical and professional skill development, along with topical seminars and programmes that address current engineering issues.

How are these developed?

■ **CPD Standing Committee:** The Committee is made up of representatives from both industry and CPD Liaison Officers elected from each of the regions, divisions and societies within Engineers Ireland. The Committee meets on a regular basis throughout the year to discuss the different professional requirements and issues that can be delivered through CPD events.

■ **Legislation and Topical Issues:** Legislative changes and topical issues constantly affect the engineering landscape, and Engineers Ireland is acutely aware of the need for timely educational events that help inform and educate our members on these changes. We arrange comprehensive seminars and programmes that explore these issues in depth with input from experts to provide accurate and informative sessions where members can be reassured and confident that they are up to date on the most pressing issues facing their profession.



■ Training and Learning Needs Analysis

(TLNA): Engineers Ireland surveys our 23,500+ members to determine what training and educational events they feel are necessary to meet their learning needs. These survey results directly feed into the development of the Engineers Ireland Training Calendar.

Learning requirements from the TLNA Survey 2015:

Top 'Technical' areas identified:

- #1. Energy
- #2. Water
- #3. Building regulations

Top 'Soft Skills' areas identified:

- #1. Project Management
- #2. Leadership and Management Skills
- #3. Legal

Seminars

Throughout the year Engineers Ireland provides a series of one-day seminars that cover specific issues in depth with a variety of experts who explore the subject matter to provide a comprehensive learning experience.

Recent Seminars

- Building Control Regulations
- Practical Steps to Extend the Lives of Bridges
- Flood Risk Management: Protecting and Planning for our Communities
- Taking Lean to the Next Level
- New Developments and Challenges in Fire Safety
- The Essentials of the Construction Contracts Act
- Best Practice Talent Management & Retention in the ICT Industry
- Permitting of Energy Projects
- Implementing Bus Rapid Transit in Ireland
- MEETA Annual Conference

Our seminars consistently deliver their stated learning objectives and meet the individual learning objectives of delegates.

A selection of testimonials:

Building Control Regulations

"Very interesting seminar and thoroughly learned a lot by coming to it. Very worthwhile"

Flood Risk Management

"Excellent speakers and topic covered extensively"

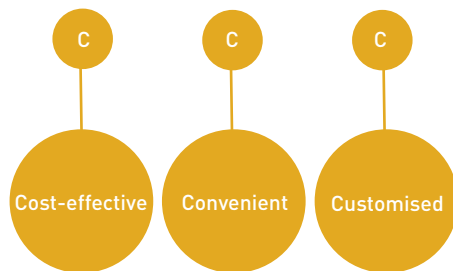
Fire Safety

"Organisation of this seminar was excellent as was the course content. Looking forward to coming back for more CPD seminars"

In-Company Training

Designed for you:

You can select any one of our public training programmes. Whichever one you choose, you can be sure that you will be trained by a tutor with vast amounts of practical experience who has an excellent understanding of your marketplace. Engineers Ireland's in-company training focuses on three simple letters to deliver one complete package. They are:



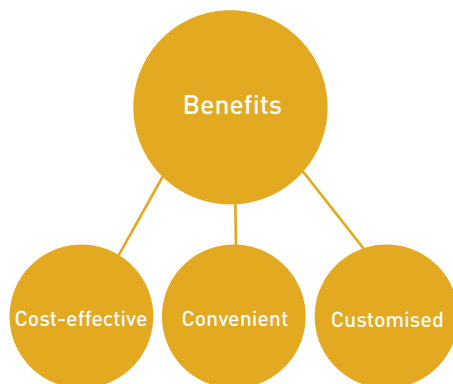
Testimonial from EirGrid:
"We in EirGrid have run a number of project management programmes organised by Engineers Ireland. The content of these programmes and the professionalism of the trainer were excellent. We regard our partnership with Engineers Ireland in continuing professional development as a key component of our strategy to develop as a centre of excellence in the effective and timely delivery of grid infrastructure."

John Fitzgerald, MIEI,
Director, Grid Development,
EirGrid

A selection of the organisations which recently invested in an in-company programme with Engineers Ireland:



We are responding to the increase in demand from our clients to organise and run in-company training programmes throughout Ireland and abroad. At Engineers Ireland, we are aware that given the recent economic difficulties, organisations have to manage their training budgets with extreme caution. We are aware of these budget constraints and we believe that the **three** benefits outlined below are key in addressing this issue.



Benefits to your organisation

Cost-effective – All programmes are priced per day rather than by delegate, which creates substantial cost savings. In addition there are considerable savings on time and travel. It is an effective method of making the most of your training budget.

Convenient – Location and times are flexible and arranged around your business needs. All of our programmes are delivered on your own premises or at a suitable local venue.

Customised – Each of our programmes can be tailored to meet your organisation's specific needs and objectives. We can modify programmes, combine two or more programmes into one integrated programme or add new components to existing programmes. We work with you to implement practical solutions for your company.

Request a customised training quote:
To do this, simply contact the CPD team on 01-665 1305 or email us at cpdtraining@engineersireland.ie.



Project Management Training

What is Project Management?

Project management is the application of knowledge, skills and techniques to execute projects efficiently and effectively. It is a strategic competency for engineering-led organisations, enabling them to tie project results to business goals — and thus, better compete in their markets.

The Project Management Institute's (PMI) Project Management Professional (PMP) ® credential is the most important industry-recognised certification for project managers. Globally recognised and demanded, the PMP® demonstrates that you have the experience, education and competency to successfully lead and direct projects.

Together with Engineers Ireland and the Centre for Project Management, University of Limerick, we will help you take the necessary steps and undertake the required training to sit the PMP® examination.

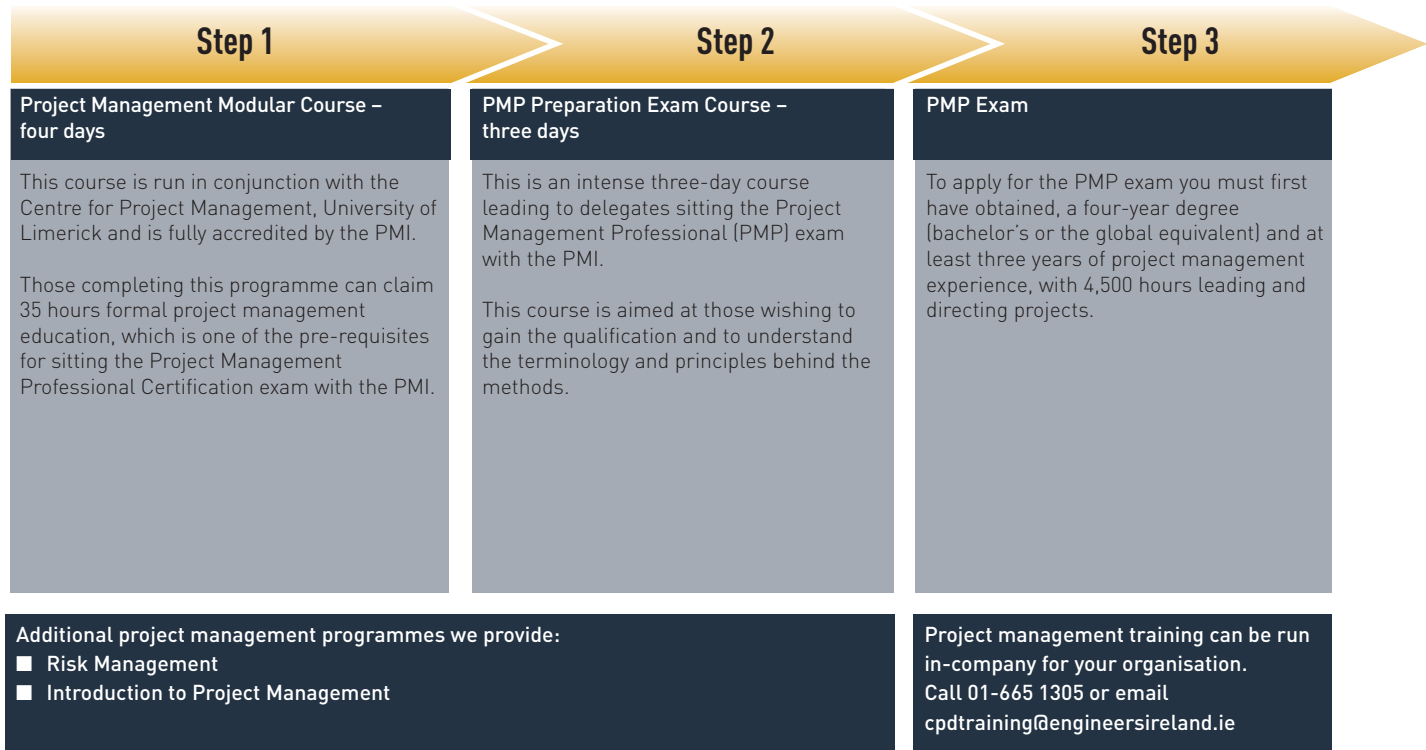


UNIVERSITY of LIMERICK
OILScoil LUIMNIGH

*"Ranked #1 this year as
the most important skill to
enable engineers to add value"*

Engineers Ireland's
Training and Learning Needs
Analysis survey (2015).

Become a Project Management Professional (PMP)



Communication (Commercial and Interpersonal Training)



Finance for Engineers – one-day programme

Competence: C3

Aim: Many engineers play an active role in the acquisition of assets and in day-to-day expenditure within the organisation. Unfortunately only a minority have financial training. This programme has been designed to enable engineers to understand how to read and interpret financial statements and how their decisions can affect the overall financial performance of the business.

Key Learning Outcomes:

- This programme has been developed to allow engineering professionals to:
- Understand how to read financial accounts
 - Extract financial ratios which point to trends in the business
 - Understand depreciation and how it impacts on the financial statements
 - Communicate using financial terminology

We also run an additional day's training on 'Advanced Finance for Engineers'.

Technical Report Writing – two-day programme

Competence: C4 T3

Aim: Reports are the written record of our professionalism. This programme develops and refines delegates' report writing skills and enables them to communicate their professionalism more effectively to target readers.

Key Learning Outcomes:

This programme will enable delegates to:

- Structure their reports more clearly
- Make key decisions earlier in the preparation process
- Write with greater confidence to their target readers

Communications/Presentation Skills – one-day programme

Competence: C4 T3

Aim: Communications skills have been identified as one of the most crucial skills for the 21st century work environment. For engineers, the ability to collaborate and influence is key. In addition, communicating complex concepts and ideas is vital if engineers are to manage stakeholder expectations and build team spirit. This communication and impromptu presentation skills programme guarantees to enhance essential skills through theory and plenty of practice.

Key Learning Outcomes:

This programme will improve participants' ability to:

- Act as key influencers in the decision-making process
- Handle difficult situations through effective communications
- Present project reviews and updates professionally when given little time to prepare

Prioritisation and Time Management Skills – one-day programme

Competence: C3 T3

Aim: Organisations adapt constantly to an ever-changing business environment. To assist in that process, this programme refines how delegates prioritise tasks and structure their time by focusing on practical strategies to manage increasing workloads.

Key Learning Outcomes:

This programme will enable delegates to:

- Prioritise tasks and delegate more effectively
- Schedule and sequence tasks for greater productivity
- Develop relevant organisational skills and methods

Negotiation and Influencing Skills – one-day programme

Competence: C4 T3

Aim: Engineers have to negotiate on a daily basis in their professional lives, as the things they need to acquire, or achieve are commonly owned, controlled, or influenced by someone else.

This programme will assist participants in reaching mutually beneficial agreements with others. It will achieve this by providing a greater understanding of the professional negotiation process and exploring the techniques and ploys commonly used by negotiators.

Key Learning Outcomes:

This programme will empower you to:

- Learn how to use and recognise different negotiation techniques and ploys
- Develop a structured approach using a step-by-step process
- Enhance verbal and non-verbal communication skills
- Learn how to use and recognise a range of different influencing styles and strategies

Legal Training



Delivered in conjunction with Engineers Ireland's professional legal partners.

Essentials of the Public Works Contract – two-day programme

Competence: C2

Aim: This is a practical course that emphasises those areas that give the most difficulty in the management of construction projects. These issues include change management from instruction to valuation, programming requirements, extensions of time and risk allocation.

Key Learning Outcomes:

Delegates will have developed an understanding of the key conditions in the Public Works Contracts

Risk, Time and Money in the Public Works Contract – one-day programme

Competence: C2

Aim: To provide a greater understanding of Clauses 4 (Management), 9 (Time), 10 (Claims) and 11 (Payment) of the Public Works Contracts as well as Schedule Part 1K (Risk Transfer), with discussion of a number of practical examples and common issues surrounding the above clauses.

Key Learning Outcomes:

This programme will enable delegates to:

- Administer and negotiate through the risk, programme, time and payment issues in the Public Works Contracts
- Have a greater sense of the meaning and intent of the clauses, rather than merely knowledge of what the clauses say

Procurement – Best Practice for Public Bodies – two-day programme

Competence: C2 & C5

Aim: The programme addresses the increasingly contentious area of public sector procurement. It is designed for those working in and for the public sector who are interested in getting a detailed overview of public procurement principles, policies and procedures.

Key Learning Outcomes:

This programme will enable delegates to:

- Describe the principles governing procurement and understand the importance of procurement planning
- Competently plan a compliant procurement process and select the advertising method and type of competition
- Evaluate pre-qualifications and tenders and award contracts in accordance with EU and Irish law
- Correctly debrief unsuccessful applicants and understand risks relating to legal challenges

An Introduction to NEC3 – one-day programme

Competence: C2

Aim: To provide an introduction to the structure and working of the NEC3 for Irish businesses likely to be using this contract in the UK.

Key Learning Outcomes:

This programme will enable delegates to:

- Understand the NEC3 ethos and novel terminology
- Appreciate the importance of proactive risk management using Early Warning Notices
- Understand the various different payment mechanisms across the NEC3 main options
- Plan for and successfully deliver an NEC3 contract

Call us on
01-665 1305 or
email cpdtraining@engineersireland.ie
to discuss your
learning needs.

Construction Contracts Act 2013 – Adjudication and the new payment regime – one-day programme

Competence: C1

Aim: The aim of the programme is to give delegates a firm introduction to the Act's key provisions in order to prepare them for the changes to the Act, which are now in place. It will give delegates an insight into experience of similar provisions in other jurisdictions as well as an introduction to advocacy in adjudications.

Key Learning Outcomes:

This programme will enable delegates to have:

- A firm understanding of the provisions of the Act and its impact on construction culture in Ireland
- An appreciation of the adjudication process
- An understanding of key procedural points in the adjudication process
- An awareness of the experience of adjudication in other jurisdictions

The Standard Conditions of Engagement for Consultancy Contracts – half-day programme

Competence: C2

Aim: To equip participants with the knowledge and understanding of the Standard Conditions of Engagement for Consultancy Contracts, and to ensure that those entering into these contracts with Contracting Authorities are fully aware of the onerous risk transfer and obligations placed on them.

Key Learning Outcomes:

This programme will enable delegates to:

- Be well prepared to tender for and enter into Consultancy Contracts under this form of contract
- Be fully aware of their obligations and of the potential pitfalls under this contract

Introduction to Law for Engineers – one-day programme

Competence: C5

Aim: This programme aims to provide engineers with a practical insight into the current trends in engineering litigation in Ireland and the legal basics they need to be aware of.

Key Learning Outcomes:

This programme will enable delegates to:

- Rethink their letters of appointment in the context of contract law
- Become aware of areas of potential exposure to liability in negligence
- Understand the Irish court structure and legal system
- Become aware of how Irish/international courts analyse and define the engineer's role in construction and technical claims

Habitats Directive and Appropriate Assessment – one-day programme

Competence: C1

Aim:

To impart an understanding of the Natura 2000 network and the basis for Habitats Directive Assessments to professionals.

Key Learning Outcomes:

This programme will enable delegates to:

- Interact with other professionals in relation to projects within such designated areas
- Advise clients if a screening for Appropriate Assessment is required and will be able to indicate if the project may require a full Appropriate Assessment (Natura Impact Statement)
- Seek minor changes to a project at an early stage and through this avoid the need for a Stage 2 assessment
- Gain an understanding of the legal aspects such as retention, extension of time and exempt development

Expert Witness Training for Engineers – one-day programme

Competence: **C5**

Aim: This course is aimed at providing a comprehensive overview of expert witness work, and the practicalities of being an expert witness. This course will look at both the theory and practice behind giving expert witness testimony in all forms of dispute and ADR. It will also focus on the role of the witness and tips on how to develop skills when giving evidence.

Key Learning Outcomes:

Delegates will learn:

- What is expected of an expert witness
- About the different types of processes and procedures within dispute resolution
- About examination and cross-examination when giving evidence
- What is required to prepare for giving evidence

Expert Witness Report Writing – one-day programme

Competence: **C5**

Aim: The interactive training day focuses on the Expert Witness Reports that engineers write for court hearings. This programme assists delegates to understand what is required from reports. They will consider the content of reports by considering the source and weight of evidence to be included and learning to distinguish between facts, inference and opinion. They will also consider the style and format of reports by reference to a model format for reports. The samples and models can be adapted to suit the field and context that is required.

Key Learning Outcomes:

Delegates will learn:

- How to identify the issues and the facts, and the source and weight of those facts
- Appropriate layout, format and style
- How to express an opinion on the issues and pitch the language of the report at the right level
- How to develop an objective and critical eye in relation to report writing

FIDIC Overview for Engineers – one-day programme

Competence: **C2**

Aim: The aim of the programme is to assist the users of FIDIC in understanding the FIDIC philosophy, choosing the correct form of contract and adapting it correctly and to give a detailed overview of the Red (Traditional) Form of Contract.

Key Learning Outcomes:

This programme will enable delegates to:

- Be conversant with the differences between the main forms of FIDIC
- Understand FIDIC systems and be better positioned to operate FIDIC as either a Project Manager or a Contractor

Technical Training



Designing for Safety in Construction – two-day programme

Competence: C2

Aim: To provide practical guidance to designers on how to comply with their duties under the Safety, Health and Welfare at Work legislation. This programme is based on the “Designing for Safety in Construction” Manual, authored by Jack Kavanagh, Chartered Engineer, FIEI and published jointly by ACEI, Engineers Ireland and RIAI in April 2011.

Key Learning Outcomes:

On completion of the programme, a participant will be informed on recommended practice in respect of:

- The duties of a designer under the legislation
- Statutory duties overriding contractual duties
- The ‘general principles of prevention’
- ‘Hazards’, ‘risks’ and ‘particular risks’
- Designers’ risk assessment, hazard elimination and risk mitigation
- Co-operating with other designers
- Protocols within design teams
- Providing information for the Preliminary Health and Safety Plan *et al.*

This programme results in certification.

Project Supervisor Design Process (PSDP) – two-day programme

Competence: C2

Aim: The programme is directed towards engineers who will fulfill the role of Project Supervisor Design Process (PSDP) in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013.

Key Learning Outcomes:

This programme will enable delegates to:

- Assess their own competence to take on the role of PSDP in the case of a project of a particular size and complexity
- Advise a client (in particular an inexperienced client) of his statutory duties
- Demonstrate their competence to act as PSDP to a potential client

01-665 1305
Call to find out
next dates

I.S.3218:2009 – Fire Detection and Alarm Systems – one-day programme

Competence: C1

Aim: This one-day review programme is designed to update existing users of the 1989 Code of Practice with the changes in the new standard, to allow them to continue with their activities under the new requirements of the standard.

Key Learning Outcomes:

This programme will enable delegates to:

- Develop a fire safety strategy
- Design and implement fire alarm systems
- Understand the role of the system designer in the design process
- See how service and maintenance works are to be executed in compliance with the standard

Problem Solving and Decision Making – one-day programme

Competence: C1

Aim: This programme discusses the concept of problem solving, outlines an array of types of problems and introduces attendees to the problem solving process. Delegates will learn simple yet highly effective thinking strategies and tools that they can use to generate new and original solutions. Attendees are introduced to tools and techniques on how to evaluate the options in order to select the optimal solution to implement based on the best value to the sponsor. It will look at the history of decision making and some of the challenges that arise during the decision making process. This training session is designed to be practical and participative. Attendees will be involved in both individual and group activities throughout the day.

Key Learning Outcomes:

This programme will enable delegates to:

- Discover how the problem solving process works and how to use it to solve a range of everyday business challenges
- Learn and apply practical problem solving techniques in order to generate new and original solutions

- Learn the basics of decision making and some challenges that may influence decision makers

Microsoft Project – one-day programme

Competence: **C3**

Aim: To enable participants to manage and track projects successfully and provide essential project management information including resource management, tracking critical paths and reporting.

Key Learning Outcomes:

This programme will enable delegates to:

- Define and outline a project task list and create and modify task dependency links
- Identify a resource pool and assign resources to various tasks
- Explore several methods for managing resource work
- Track actual progress on a project and reschedule incomplete work

Microsoft Excel – one-day programme

Competence: **C3**

Aim: With Excel being used so regularly within modern businesses for multiple purposes, this programme will be of interest to delegates of all fields and levels that use Excel on a regular basis and wish to expand their knowledge of the software. This one-day programme covers the features to manage data, worksheets, and workbooks. It includes tasks such as using large worksheets, working with multiple worksheets, and managing data, worksheets and files.

Key Learning Outcomes:

This programme will enable delegates to:

- Manage data, worksheets, and workbooks
- Create and format charts, draw an object, use additional effects and objects and use Autosshapes
- Learn how to use ranges, other functions, and data filtering
- Gain an understanding on how to use HTML files and work with comments

Benefits of in-company training

- Cost-effective
- Venue of your choice
- Tailored to your needs
- Larger groups trained

Call 01-665 1305 or email
cpdtraining@engineersireland.ie

Electrical Training



We offer a range of electrical training courses reflecting the latest methods and practices in electrical engineering. The electrical programmes available are based on the most up-to-date legislation and safe systems of work procedures.

Electrical Engineering Systems Programme – two-day programme

Competence: C1 T1 T2

Aim: To enable delegates to fully understand the ETCI Rules, 4th Edition (ET101:2008) with integral aspects of electrical engineering ranging from an appreciation of Health and Safety legislative requirements to practically implementing engineering solutions underpinned by the scope and breadth of the ETCI rules.

Key Learning Outcomes:

- Be informed with respect to legislative requirements including the (General Application) Regulations 2007 – S.I. No. 299 part 3 (and subsequent Amendments S.I. 732).
- Reinforce the awareness of the ETCI LV Rules concerning Layout, Plan and Application; with particular reference to recent additions brought about by the introduction of the 4th Edition (ET101:2008)
- Apply the Rules in wiring system design and designation of appropriate protective devices
- Introduce the logistics and requirements involved in verification and testing of electrical installations in the context of requirements as laid down by both ET101:2008 as well as the CER criteria document. Also, delegates will be given an introduction to distribution design.

Sustainable Pumping – two-day programme

Competence: C1 T2

Aim: This programme will give participants a sound understanding of how pumps work and impart a methodology to diagnose problems and improve the operation of pump systems.

Key Learning Outcomes:

- Understand how pumps work
- Have a systematic approach to pump selection
- Evaluate and improve operation of the pumping system
- Identify possible better operational control to reduce energy costs

NEW

Introduction to Electricity and Low Voltage Electrical Systems in Industry – two-day programme

Competence: C2 T1

Aim: To give participants a clear understanding of electricity, its properties as relevant to plant and equipment and how electrical systems work in industry.

Key Learning Outcomes:

This programme will enable delegates to:

- Acquire an understanding of basic electricity and electromagnetism including key electrical principles and how electrical equipment and plant operates
- Carry out practical learning, e.g., connect, test and operate standard electrical circuits and use a multi-meter and other tools to test these electrical circuits and various items of equipment, including a three-phase induction motor
- Understand electrical load calculations and assessment, power cable selection and plant applications
- Understand electrical safety issues, personal electrical safety and how to test plant safely on site

NEW

Introduction to Programmable Logic Controllers (PLCs) and an Overview of SCADA Systems – two-day programme

Competence: C2 T1

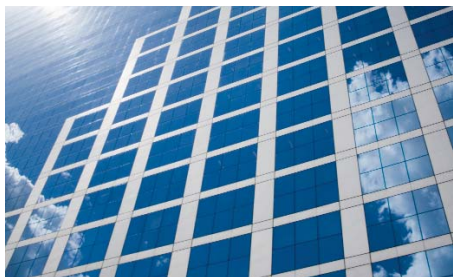
Aim: To give participants a clear understanding of how the PLCs gather information for the SCADA (Supervisory Control And Data Acquisition) system. These high quality versatile units can solve process plant and manufacturing plant control problems.

Key Learning Outcomes:

This programme will enable delegates to:

- Gain a good clear understanding and working knowledge of the widespread use of PLCs and SCADA systems.
- Understand how sensors and field devices are connected
- Understand the capabilities and wide application of Industrial Colour Graphics/SCADA systems

Maintenance Management Training



Maintenance management competences are vital for modern enterprises. To acquire new skills and best practice ways of thinking, our programmes are designed to be interactive with group discussions and case studies.

Basic Principles of Asset Management, PAS 55 and ISO 55000 Maximising Returns from Capital Investments – three-day programme

Competence: **C3**

Aim: This three-day workshop is designed to be a hands-on, stimulating experience. The programme is highly interactive with many discussion and facilitated practice sessions. Key points are emphasised with case study examples. There are a combination of presentation sessions and workshops.

Key Learning Outcomes:

This programme enables delegates to make a substantial, positive impact on the asset management best practices within their organisation, specifically:

- A step-by-step guide to asset management – starting with foundations and building up to best practice
- A solid understanding of best practice techniques and a range of technical and human risks associated with asset management and how they can be mitigated
- The ability to design a tailored asset management improvement plan for their organisation which tackles the major risk areas

- A practical approach to developing an action plan to utilise these technologies in their own areas of responsibility, fitting them into the overall asset management strategy, and measuring benefits

Top-rated
CPD
courses

PAS 55 and the new ISO5500 – one-day programme

Competence: **C3**

Aim: This is an entry level programme and the aim is to educate and help people understand asset management, learn what it can do for them and be prepared for the new ISO standard ISO55000.

Key Learning Outcomes:

- What is asset management and why is it not just maintenance by another name?
- The main features of asset management and the development of the asset management specification – PAS 55
- The 28 key areas of PAS 55 and the assessment methodology including practical exercises
- Case studies: How different industries carry out their asset management

NEW

Asset Management Certificate Training Investments – five-day programme

Competence: **C3**

Aim: The programme provides grounding in the principles and practice of asset management. The content is aligned to PAS 55 and to the Institute of Asset Management (IAM) competency framework, with a view to preparing students to pass the IAM Certificate in Asset Management examination.

Key Learning Outcomes:

This programme will enable delegates to:

- Contribute to the generation and implementation of asset management policy, strategy, objectives and plans
- Participate in asset-related risk identification, analysis and management processes and contingency planning
- Understand the asset life cycle and the role of appropriate tools to optimise the performance, risk and cost of assets
- Identify the information and performance measures needed for effective asset management, and evaluate the effectiveness of asset information systems

Invest in asset
management
training to realise
major savings

EU Legislation and Quality Standards Training



EU Directives are constantly reviewed and modernised. To stay up to date with the most current changes, Engineers Ireland aims to bring experts in the field to provide quality training on what you need to do to stay compliant. We also provide training on the latest ISO standards to ensure you can stay competitive in the domestic and global marketplace.



ISO 50001 Energy Management System – two-day programme

Competence: **C2**

Aim: The programme is built around the international standard for energy management ISO 50001, which defines international best practice in energy management within any organisation. Delegates will learn about every requirement of ISO 50001 and how to apply these requirements in their companies to achieve improved energy performance.

Key Learning Outcomes:

This programme will enable delegates to:

- Gain a thorough understanding of international best practice in energy management ISO 50001
- Participate in case studies and exercises
- Gain the knowledge and understanding to implement an energy management system

ISO 9001 Quality Management Systems Certification – two-day programme

Competence: **C2**

Aim: ISO 9001:2008 is an internationally recognised quality management system (QMS) standard. It is the world's leading quality management standard and has been implemented by over one million organisations in over 170 countries globally. The aim of this course is to help organisations ensure that they meet the needs of their customers and other stakeholders while also meeting statutory and regulatory requirements related to the product.

Key Learning Outcomes:

ISO 9001 contains eight key principles of quality management which are not auditable but do form the fundamental characteristics of quality management. This programme will enable delegates to get a full understanding of the eight key principles:

- Customer focus and customer satisfaction
- Leadership
- Involvement of people
- Process approach
- System approach to management
- Continual improvement
- Factual approach to decision making
- Mutually beneficial supplier relationship

ISO 14001 Environmental Management System Certification – two-day programme

Competence: **C2**

Aim: The ISO 14001 Environment Management System (EMS) standard is an internationally recognised environmental management standard which was first published in 1996. It is a systematic framework to manage the immediate and long-term environmental impacts of an organisation's products, services and processes. The trainer for this programme is accredited to certify organisations' environmental management systems to the ISO 14001 standard.

Key Learning Outcomes:

ISO 14001 is part of the ISO 14000 series and forms the cornerstone of the family of standards. ISO 14001 environmental certification provides a framework for environmental management best practice to help organisations:

- Minimise their environmental footprint
- Mitigate the risk of pollution incidents
- Provide operational improvements
- Ensure compliance with relevant environmental legislation

OHSAS 18001 Occupational Health and Safety Management Certification – two-day programme

Competence: **C2** **T5**

Aim: OHSAS 1800:2007 Occupational, Health and Safety Management Certification is an international standard which provides a framework to identify, control and decrease the risks associated with health and safety within companies. Implementing the standard will send a clear signal to stakeholders that organisations view employees' health and safety as a principal priority within their company.

Key Learning Outcomes:

The OHSAS 18001 standard provides organisations with a framework for health and safety management helping them to:

- Identify, minimise and control health and safety risks
- Conform to health and safety legislation
- Protect the wellbeing of employees

Environmental,
quality and safety
training that delivers
benefits to your
business

Most
popular
course

EU Machinery Directive – one-day programme

Competence: C1 T2

Aim: To equip delegates with the knowledge of CE Marking for Machines and the relevant EU Directives.

Key Learning Outcomes:

This programme will enable delegates to:

- Structure and implement a CE Marking Safety Strategy
- Understand the technical requirements of the Machinery and related EU Directives
- Understand the legislation with regard to Machinery and related EU Directives
- Interpret compliance requirements/standards and implement them during design, development, manufacture, operation and maintenance of machinery

Most
popular
course

EU Pressure Equipment Directive – one-day programme

Competence: C1 T2 T5

Aim: This programme provides delegates with an understanding of the basic requirements of the European Pressure Equipment Directive and the Irish Pressure Equipment Regulations. The programme aims to assist those responsible for specifying or purchasing pressure systems to understand what the implications are and also how to check if a system does in fact comply. It will assist those involved in the supply, installation or modification of pressure systems to understand whether their systems come under the scope of the Directive, and if so how to go about complying.

Key Learning Outcomes:

This programme will enable delegates to have an understanding of:

- The legislative position of the Pressure Equipment Directive (PED) in Ireland
- The scope and application of the PED with regard to new systems and existing systems
- How to assess whether a pressure system comes under the scope of the Directive
- The relationship with CE Marking and other related Directives

NEW

Biopharma Training



What is Biopharma Training?

The Biomedical industry is a major growth area in engineering in Ireland. In conjunction with the National Institute for Bioprocessing Research and Training (NIBRT), Engineers Ireland delivers training that provides an insight into the biopharma production process, the equipment used in biopharma plants, the operation of key utilities servicing biopharma plants as well as the process measurement, control and digital communication commonly used in state-of-the-art biopharma plants.

Biopharma for Engineers – one-day programme

Competence: C1 T1

Aim: This one-day CPD programme will provide an insight into the biopharma production process, the equipment used in biopharma plants, the operation of key utilities servicing biopharma plants as well as the process measurement, control and digital communication commonly used in state-of-the-art biopharma plants. Delegates will gain a comprehensive understanding of the distinct differences between traditional pharma plants and biopharma plants.

Key Learning Outcomes:

This session has been designed to give a high-level overview of the main areas in a modern biopharma production process. Delegates will gain an understanding of the upstream, downstream and fill finish processes of the biopharmaceutical production train. This theory session will cover the following topics:

- Difference between pharmaceuticals and biopharmaceuticals
- Basic genetic engineering
- Monoclonal antibodies
- Overview of bioprocessing

Call us on
01-665 1305 or
email cpdtraining@engineersireland.ie
to discuss your specific
training requirements

Strategic Mentoring Training



In-Company Mentoring for Professional Development –

Competence: **C3**

MENTORING PROGRAMME PART I

Top team strategy half day: Expertly facilitated by Engineers Ireland, your top team will formulate a clear strategic rationale for the implementation of mentoring in your organisation, together with desired learning outcomes which deliver tangible results.

MENTORING PROGRAMME PART II

Aim: Do you fully understand the strategic significance of mentoring? More and more knowledge-intensive firms are using mentoring to drive essential expert knowledge throughout their ranks. Mentoring also addresses a vital part of competence development, i.e., behavioural standards, in a way that other development initiatives cannot. This programme covers the theory and practice of mentoring to bring about understanding and process control.

Key Learning Outcomes:

This programme will provide delegates with:

- An excellent understanding of mentoring
- A total process tool-kit for mentoring meetings

- Core competences for effective mentoring
- A sense of control and confidence to begin mentoring

MENTORING PROGRAMME PART III

Assessment of outcomes: Approximately six months after the training has been delivered, an Engineers Ireland consultant returns to facilitate a series of semi-structured interviews in order to evaluate the programme and process and prepare a detailed mentoring programme evaluation report for management.



Recipient of 'Best Practice Initiative Award'

elearning: The Solution – Bring Learning to People



Technology has revolutionised business, now it must revolutionise learning. Learning has moved from the classroom onto the desktop and now into the pocket.

Top five reasons why elearning is so important in revolutionising learning:

1. elearning means that you no longer need to spend long periods travelling to a location to attend a programme
2. elearning means that learning no longer needs to be a passive experience
3. elearning makes learning exciting, engaging and compelling
4. elearning empowers learners to manage their own learning and in the most appropriate way for each learner
5. elearning is also helping to embed learning within work processes, as organisations begin to recognise that learning is not something that only takes place in a classroom

Project Management module

"The structure of the course was very relevant to my work environment and I will definitely use the tips and downloads provided in the course to enhance my project management capabilities."

Leadership Skills module

"It was my first experience in completing an online course, I thought it was well laid out, easy to follow. It was also easy to pick it up after a couple of days' break."

Finance for Non-Financial Managers module

"It met objectives in giving me a greater understanding of the financial aspects of my business."

27 online modules to choose from.

Log on to
access your 10
complimentary
courses
(members only)

Visit www.engineersireland.ie/cpd/elearning

With over 1,500 of our members currently overseas we realise how important it is to keep all members, in all locations up-to-date. Engineers Ireland has successfully introduced 27 certified and verifiable CPD elearning modules, which will connect you to online

education, both at home and abroad. Each elearning module is available 24/7 and a certificate of completion can be printed to verify this CPD.

To further support our members with their

ongoing CPD requirements we are offering access to 10 complimentary elearning modules (listed below) to each of our members. To access these elearning modules please visit www.engineersireland.ie/cpd/elearning and follow the steps provided.

10 Complimentary elearning Modules (Members Only)

- Communicating Complex Ideas
- Negotiation Skills
- Grammar & Effective Writing
- Leadership
- Conducting Performance Appraisals
- Coaching Skills
- Corporate Social Responsibility
- Managing from Within the Team
- International & Remote Working
- Developing your Professional Career

Available to purchase

- Project Management
- Finance
- Managing Workload
- Social Media for Professionals
- Key Performance Indicators (KPIs)
- Enterprise and Entrepreneurship
- Innovation
- Risk Management
- Problem Solving
- Conversations with Clients
- Advanced Negotiation
- Thinking Strategically
- Business Performance Management
- Promoting your Professional Practice
- Managing Professionals for Results
- Becoming an Expert Witness (UK Based)
- Decision Making for Managers

Register of CPD Training Providers (RTP)

Another avenue for upskilling through Engineers Ireland

Our Register of Training Providers (RTP) offers a vast range of technical know-how and soft skills programmes.

In a situation where a specialist need arises which our core CPD programme does not cover, we refer client companies and members to our online RTP, providing CPD modules in:

1. Construction
2. ICT
3. Consultancy/Engineering
4. Education
5. Manufacturing
6. Utility/Public Sector/Infrastructure

A selection of RTPs with Engineers Ireland:



For a full list of Registered CPD Training Provider programmes please visit our website: www.engineersireland.ie

Becoming Lean Focused

The Engineers Ireland–Enterprise Ireland Lean Alliance



Engineers Ireland has formed an alliance with Enterprise Ireland to introduce and educate engineering professionals in the concept of 'becoming Lean' within business.

In today's business environment organisations in Ireland are competing against global competition. It is essential that you understand your company's competitiveness position compared to international competitors and introduce measures to maintain and improve your position in the marketplace.

Enterprise Ireland's core mission is to work in partnership with its client companies to develop a sustainable competitive advantage leading to a significant increase in profitable sales, exports and employment.

Our Lean Business Offer is designed to encourage clients to adopt Lean business principles in their organisation to increase competitiveness.

The Lean Business offer is split three fold:

1. **Lean-Start: Focus on value**
2. **Lean-Plus: Performance improvement**
3. **Lean Transformation: Business transformation**

Engineers Ireland now delivers specific Lean training including white and yellow belt offerings.



The Engineers Ireland–
Enterprise Ireland Lean Alliance
*"Enterprise Ireland is delighted to work with
Engineers Ireland in our Lean Alliance. The
understanding, use and promotion of Lean
concepts and tools by members will support
Ireland's efforts to drive our competitiveness
forward to truly world-class levels."*

Dr Richard Keegan
BE, Chartered Engineer, MComm, PhD FIEI
Manager, Competitiveness Department
(encompassing Lean Business
and Benchmarking),
Enterprise Ireland

Call 01-665 1305 or email cpdtraining@engineersireland.ie to discuss Lean training.

Becoming Green Focused



Engineers Ireland is working in partnership with the Irish Green Building Council (IGBC) to introduce and educate engineering professionals on the tools used globally and in Europe.

Certification tools for Green Building – one-day programme

Competence: **C2**

Aim: This course begins with an introduction to certification tools globally and in Europe, as well as an overview of the use of these tools in Ireland (based on the IGBC's Building Environmental Assessment report). This is followed by discussion and an eco-charette on a sample building using Leadership in Energy and Environmental Design (LEED) and Building Research Establishment's Environmental Assessment Method (BREEAM) certification systems.

Key Learning Outcomes:

- Know what certification involves
- Be able to choose the appropriate certification for your project
- Know how building certification can impact your business, and the use of certifications in maintaining a competitive property portfolio
- Know where to find the information to ensure that systems and services comply with certification requirements

What is BREEAM?

BREEAM is the world's foremost environmental assessment method and rating system for buildings, with 250,000 buildings with certified BREEAM assessment ratings and over a million registered for assessment since it was first launched in 1990.

What is LEED?

LEED is an internationally recognised green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO₂ emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

SECTION 2



Engineers Ireland's Future Professionals Series

The Engineers Ireland Future Professionals Series offers structured advancement to graduates through two strands of intense and challenging professional development. Engineers Ireland is delighted to announce that the Future Professionals Series has been accredited by Dublin Institute of Technology (DIT).

CPD Certificate in Professional Engineering Six months (NFQ Level 9, 5 ECTS)

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.

Programme content:

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



"I really enjoyed this programme... it has helped me develop as a professional in ways that would have taken me years to learn on my own."

"This programme is having a profound impact on my career and it has instilled in me a new level of confidence. It has opened my mind... and was extremely well put together."

"This programme has given me great inspiration, knowledge and direction."



CPD Diploma in Professional Engineering Twelve months (NFQ Level 9, 30 ECTS)

This Level 9 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. The Diploma programme is delivered on a part-time basis involving classroom sessions, project work, assignments, research and work place mentoring.

"I found that the varied aspects of engineering taught by industry experts came with first-hand knowledge. All very relevant to the role of managers in the engineering industry."

Award-winning
engineering
education

Call for
next enrolment dates
01-665 1305 or
email cpdtraining@engineersireland.ie

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
PPP4: Finance, Risk Analysis and Handling Complex Communications	Communicating Complex Ideas Finance for Professional Engineers Risk Management and Control	5 ECTS
PPP5: 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

Engineers Ireland's Fast Track Series

This convenient part-time programme has been designed in collaboration with leading employers to allow high-potential technical staff with apprentice and craftsperson skills to develop a range of non-technical skills which are vital for career advancement. Participants will gain insights from industry experts and professional tutors in order that they can appreciate the importance of fully-rounded development in order to cope with the challenges of 21st century projects and processes in a demanding and fast-paced environment.

Duration: Five months part-time

Award: (NFQ Level 6, 5 ECTS) CPD Certificate in Professional Skills

Programme content:

1. Managing Yourself
2. Planning & Prioritising
3. An Introduction to Project Management & Teamwork
4. Communicating Effectively
5. Commercial Awareness

Call us for
more
information
01-665 1305

"The programme helped me develop professional skills with real world applications. It was delivered by industry professionals and gave a great insight into the skills required to become a professional in my field."

"Content delivered during the programme has been invaluable to my progression in my job, providing me with new and advanced skills."



Some participating companies...



The Engineer's Guide to Effective Management



The Engineer's Guide to Effective Management was created to provide an interactive series of workshops that are aimed to enable engineers with managerial responsibilities to develop the essential characteristics necessary to operate in an effective, impactful and creative manner in their role.

This series of interactive workshops is structured to provide a comprehensive programme that incorporates complementary preparatory readings to the theme each week. The half-day workshops include a presentation by a guest speaker who imparts their own knowledge and managerial experience in that particular field. Following the presentation, a workshop allows delegates to think and expand

on their understanding by working through engaging practical examples.

This series will benefit any engineer in a management position and particularly those who have taken on new managerial responsibilities or are in line to do so.

Competence: C3 & C4

Aim: The aim of this series is to enable engineers with managerial responsibilities to develop the essential characteristics necessary to operate in an effective, impactful and creative manner in their role.

Programme

- Managing Your Team
- Managing Your Business
- Managing Yourself
- Managing Communications
- Managing Change

"Very useful for me as an engineer just entering the arena of management. I will use this course as a guideline for my future."

"Very interesting and informative speakers on each topic followed by related workshops which challenge your learning and understanding of the topic."

Employment Services – Supporting the employer and the careers of engineering professionals



The CPD Team of Engineers Ireland is aware of the importance of employment services to both the employer and also the individual member of the membership body.

Career Consultancy Service
"Thanks a million for your help on my CV and interview skills. It definitely helped my confidence when going for the interview."

Employment Services for Employers:

As the official voice for the engineering profession and with almost 24,000 members, Engineers Ireland Employment Services offers employers targeted access to engineering professionals and services to engineering organisations through our 'Graduate and Engineer Placement' programme.

■ Graduate and Engineer Placement –

This programme is key to career development as it allows young engineers to gain experience in an engineering environment, and the host organisation to benefit from their skills and enthusiasm. The significant advantage of these programmes to organisations is that Engineers Ireland remains the employer throughout the period of the graduate's placement.

For full details of this programme please go to EngineersIreland.ie/EmploymentServices/Employer or contact our Employment Services Department on 01-665 1300.

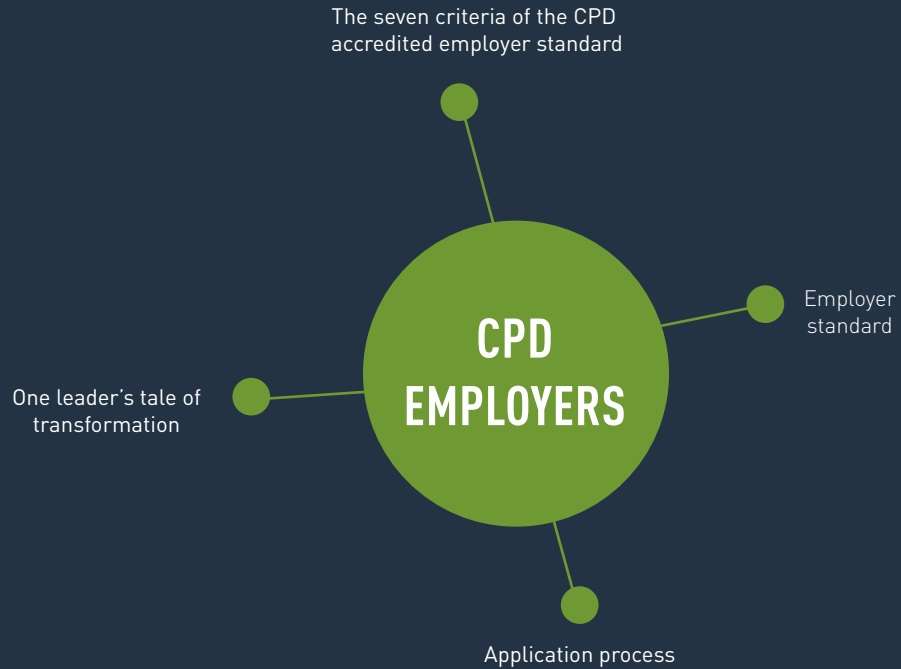
Employment Services for Members:

Engineers Ireland offers members employment services in each of the following areas to help with their career development:

- **Career Consultancy Service** – Thinking about that next career move, then speak to one of our expert counsellors
- **Career Development Training** – Sign up now for employment and promotion skills
- **Job Desk** – For the latest jobs and graduate opportunities
- **Job Desk Newsletters** – Make sure you register for this excellent service on your membership profile
- **Talent Pool** – Upload your CV to our Talent Pool and let your next employer find you
- **Job-seeking Skills Brochure** – Hints and tips on how to land that job

For full details of this programme please go to EngineersIreland.ie/EmploymentServices/Members or contact our Employment Services Department on 01-665 1300.

SECTION 3



One Leader's Tale of Transformation



William Egenton,
Managing Director,
Dromone Engineering



1. What does Dromone Engineering do?

We design and manufacture hitches for the agricultural and construction markets from our plant in Co. Meath, exporting to 36 countries worldwide.

2. Why did you want to gain accreditation to the CPD National standard?

We had very clear, ambitious high level goals to 2015 that would require a culture change and a paradigm shift in how we run our business. We used the Framework to drive commitment to and delivery on these goals. Winning the CPD Employer of the Year Award 2013/2014 was the icing on the cake!

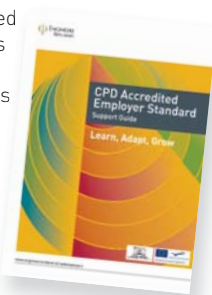
3. What key benefits does the CPD Framework bring?

The structured CPD approach has been critical in giving Dromone "the competitive edge", by driving continuous improvement leading to improved profitability, reduced throughput time, improved speed to market for new product lines and improved Right First Time. We have positioned the company as a credible Tier 1 solutions supplier to some of the largest Blue Chip OEMs (original equipment manufacturers), securing multi-million Euro long-term contracts with Massey Ferguson, JCB and Volvo.

The CPD Accredited Employer standard provides a framework for growth

The national CPD Accredited Employer standard enables engineering organisations to excel and transform. This framework ensures structured professional development of engineers and technicians as your organisation continuously adapts, while delivering high performance.

Over 160 employers are already reaping the rewards and recognition that accreditation confers so visit EngineersIreland.ie/CPD/Achieve-Standard or call +353 1 665 1305



The seven criteria of the standard are:

1. CPD Policy, Committee and Strategy
2. Adaptability through creativity and innovation
3. Performance management aligning CPD outcomes to organisational strategy
4. Mentoring during key transitions; coaching conversations
5. Competence maps and talent support programmes
6. Knowledge sharing and knowledge management
7. External 'learning' linkages

Application process in six easy steps

1. SET GOAL
Set as an organisational goal

2. GAP ANALYSIS
Complete online gap analysis

3. IMPLEMENT
Implement CPD systems and practices

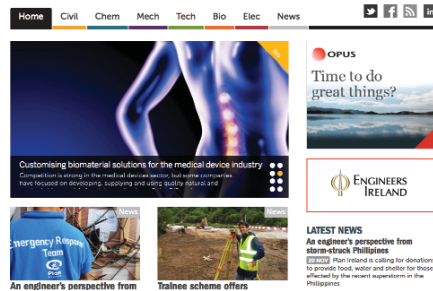
4. SUBMIT
Written submission to Engineers Ireland

5. SET GOAL
Set as an organisational goal

6. AWARD
CPD Accredited Employer

CPD for Members: Anytime, Anywhere

EngineersJournal.ie



Members have 24/7 access to new and improved CPD services. Log on to access over 700 webcasts, the world's best technical and business research database, EBSCO, plus up-to-date developments in our monthly eJournal.

EBSCO



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