

A guide to EngTech and ICTech professional registration for employers

Driving growth





Delivering skills for the future

The challenge

IET technician professional registration for students has been developed to meet a real and growing need within our industry. A need for increased skills that was made clear by the results of our 2014 Engineering and Technology Skills & Demand in Industry Survey.

The key findings were that:

- the demand for engineers remains high with more than half of engineering companies currently recruiting engineers but an increasing proportion reporting difficulties finding the people they need
- 59% of companies indicated concerns that a shortage of engineers would be a threat to their business
- more companies are becoming dissatisfied with the skills of new staff. The most notable skills shortages are for graduates followed by school leavers.

44% of respondents stated that recent engineering, IT and technical recruits did not meet reasonable expectations for levels of skill and this is significantly higher than in previous years. The biggest skills gap for graduates was lack of practical experience, leadership skills and technical expertise.

“ Placement students who are successful with their technician professional registration are better placed to prove their skills and abilities to future employers. ”

Emily Parry

Employability and Enterprise Manager
Student Placement and Employability Centre (SPEC)
University of Portsmouth



The solution

The IET is working with students, universities and employers like you to bridge the skills gap by raising awareness of and providing guidance on how to achieve professional registration as an Engineering Technician (EngTech) and/or ICT Technician (ICT Tech) before graduation. Students undertaking an industrial placement year within your business can apply for professional registration as an EngTech and/or ICT Tech at the end of their placement. Some students may be able to demonstrate that they meet both EngTech and ICT Tech competences and therefore apply for both categories of registration through the same application.

It means a greater focus on building the skills you really need to grow your business, it is a clear demonstration to existing staff, customers and stakeholders that you are investing in the future of engineering and that you support young engineers in achieving their goals.

We're working hard to ensure that your commitment to nurturing young engineers through industrial placements pays dividends for you, young engineers and the wider industry.

“ *Matt is a very flexible, positive and productive member of my team. In all respects he performs like a regular, full-time, experienced employee. Matt is preparing to apply for professional registration (EngTech) with the IET - this aligns effortlessly with our appraisal system and gives structure to his learning.* ”

Ross Thomas
(Software Engineering Manager)
of Matt Minter

Why is professional registration so important?

Professional registration provides independent recognition of competences that have been interdependently assessed to ensure that standards required for admission to the national register of professional engineers and technicians have been attained.

In short, it's an official recognition of professionalism and commitment.

For businesses like yours, an investment in professionally registered staff is a clear indication of your focus on delivering quality to your customers and shows that you expect high ethical and professional standards of all your staff.

The IET is licensed by the Engineering Council to award professional engineering and ICT qualifications (EngTech, ICTTech, IEng, CEng). The IET also offers CITP through the BCS - the Chartered Institute for IT and has partnered with the Chartered Management Institute (CMI) to offer IET members a route to qualify as a Chartered Manager (CMgr). Once an employee receives them, they have an internationally recognised benchmark of their capabilities.



Types of professional registration

Engineering Technician (EngTech)

Engineering Technicians solve practical engineering problems. They are professionals with supervisory or technical responsibility, apply safe systems of working and contribute to the design; development; manufacture; commissioning; decommissioning; operation or maintenance of products, equipment, processes or services.

Information Communication Technology Technician (ICT Tech)

ICT Technicians are professionals who support or facilitate the use of ICT equipment and applications by other users. They work in areas such as ICT business solutions, software, hardware, service or system operation/installation/support, IT administration, security, fault diagnosis and fixing.

Incorporated Engineer (IEng)

Incorporated Engineers maintain and manage applications of current and developing technology and may undertake engineering design, development, manufacture, construction and operation. Incorporated Engineers are variously engaged in technical and commercial management and possess effective interpersonal skills.

Chartered Engineer (CEng)

Chartered Engineers develop appropriate solutions to engineering problems. They may develop and apply new technologies, promote advanced designs and design methods and introduce new and more efficient production techniques, or pioneer new engineering services and management methods. The title CEng is protected by civil law and is one of the most recognisable international engineering qualifications.

Chartered IT Professional (CITP)

The IET is licensed by the BCS - the Chartered Institute for IT - to award CITP. CITP demonstrates a broad awareness across IT, a depth of knowledge in a particular area of specialism and is underpinned by periodic revalidation. Holding CITP status reflects the integrity, professionalism and dedication of the individual. Aligned with The Skills Framework for the Information Age (SFIA), the UK Government backed competency framework, CITP is the benchmark of IT excellence.

Chartered Manager (CMgr)

Becoming Chartered in the field of management and leadership demonstrates the ultimate in managerial competence and proves that you possess transferable managerial skills to the world.

The IET has partnered with the Chartered Management Institute to offer IET members a route to qualify as a Chartered Manager. If you're an IET member and a Chartered Engineer (CEng) or Incorporated Engineer (IEng) and have five years or more management experience, you are eligible for CMI's qualified route to becoming a Chartered Manager.

What standard do they have to reach?

Standards are extremely high, and rightly so.

The Engineering Council supports and promotes students becoming professionally registered in order to help individuals to build their skills, but also to drive up professional standards and capabilities industry wide.

Students applying for technician professional registration will need to demonstrate, to the accepted standard, that they;

- A.** have the appropriate technical knowledge;
- B.** can provide evidence of implementing that knowledge within the work environment;
- C.** have exercised personal responsibility (and, if appropriate, management skills);
- D.** are able to communicate technical and non-technical information to a variety of audiences
- E.** are committed to the profession, their own professional development and exercise responsibilities in an ethical manner.

These rigorous requirements mean that professional registration has real value, confers considerable professional status and delivers quantifiable benefits to businesses.

Dual EngTech /ICTTech

Some students are able to demonstrate the evidence and apply for both EngTech and ICTTech registration, if they have engaged in solving problems and performing defined tasks in engineering as well as supporting or facilitating the use of ICT equipment and applications.

“*John is learning all the time and has made a real contribution to my department. John's EngTech registration through the IET has been a useful focus for him to collect evidence of his competences along the way.*”

Derek May
(Hardware Engineering Manager)
of John Foyster

Next steps

Take a look at the requirements of your industrial placement against the Competence and Commitment Standards for EngTech and ICT *Tech* which form part of your pack. It's likely that you already meet the industry standards required to be able to offer undergraduates the opportunity to apply for professional registration following their time with your business. Or, that you will only need to make small adjustments, if any, to your offering in order to reap the rewards.

You should encourage students on a placement to maintain their placement diaries, which may be reviewed as part of the assessment process and to keep a record of their development during the placement.

As part of the final placement review, placement line managers should complete and sign an IET professional registration supporter reference form.

In addition, if you would like to be added to our list of Year in Industry Providers, which is distributed to our network of Academic Partner universities, please contact the Academic Account Manager, email: academic-partners@theiet.org



Professional support with IET Career Manager



Members of the IET will benefit from free access to Career Manager – an innovative online tool which will enable them to collate information, review their progress and plan their time with you as they work towards professional registration.

Career Manager will help them to compile their application thoroughly, accurately and to an appropriate level of detail throughout the year.

It enables them to familiarise themselves with the Engineering Council Competence and Commitment Standards and other industry specific frameworks to give them a headstart on their Initial Professional Development (IPD).

IET Career Manager is an industry specific tool which allows your employees to update and share with you their development and progress, via a self-assessment of competence against a recognised engineering framework.

In addition to administrative and planning support, IET members also receive guidance and assistance from IET professionals along the way.

Key functionality for students includes:

- access to Career Manager 24/7 at any Internet-ready PC, so whether at home, at college/university, on a work placement or away, they can always keep their record up-to-date
- the recording of technical and business skills evidence developed from a university project – whether working on their own or as part of a group task; effective communication and interpersonal skills are key competences for engineers and technicians who apply for professional registration
- the setting of development objectives, action plans and training for career development by identifying training needs/further learning
- recording of all tasks undertaken at university, during a placement year and summer/ industrial placements; these can be downloaded to Word and used to demonstrate key skills to an employer/tutor/lecturer
- familiarisation with industry specific frameworks and practice thinking in a logical manner to record evidence and demonstrate competence.

Student placement checklist

The following is a suggested programme for the organisation of an undergraduate placement year that could lead to the professional registration qualifications of EngTech and/or ICT *Tech* proposing what should be completed by the end of each period.

The programme does not suggest the type or level of work that should be completed during a placement; for such detail please refer to the EngTech and ICT *Tech* Competence and Commitment Standards which are part of the pack.

Induction

- Organisation/reporting structure
- Role description
- Product/service introduction
- Company handbook (including health and safety and code of conduct)

1st quarter

- Define method of recording competence coverage*
- Specialist training e.g. software applications, bespoke systems, health and safety, product knowledge
- Company/organisation familiarisation and engagement
- Plan work, including setting objectives and identify competence requirements
- Competence review including identifying gaps **
- Review of progress and competence
- Line manager discussion and outline plan for next quarter

2nd quarter

- Sign off of work record/diary by line manager
- Competence review including identifying gaps **
- Plan to address shortfall in knowledge and skills
- Increase independence and responsibility of work
- Review of progress and competence
- Line manager discussion and outline plan for next quarter

3rd quarter

- Sign off of work record/diary by line manager
- Competence review including identifying gaps**
- Plan to address shortfall in knowledge and skills
- Increase independence and responsibility of work
- Line manager discussion and outline plan for next quarter

4th quarter

- Sign off of work record/diary by line manager
- Competence review including identifying gaps **
- Action plan to ensure competence coverage
- Increase independence and greater personal responsibility of work
- Final project/work reporting and presentation
- Begin application for technician professional registration

Placement End

- Review of year***
- Choose suitable technical evidence***
- Draft application for technician professional registration
- Review application with an IET Professional Registration Advisor (optional)
- Revise application
- Application form signed by supporter(s)
- IET supporter reference form completed and signed by line manager as part of final placement review
- Submit application form, reference form(s) and payment form ****

* For example placement diary/progress log

** For example identifying what knowledge and skills required for you to complete the project.

*** We recommend that you review your year and technical evidence with your line manager and or your university supporter.

**** If university has nominated an academic assessor, send PDF of application form to the assessor

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IET Venues

IET London: Savoy Place*

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www.ietvenues.co.uk/savoyplace

IET Birmingham: Austin Court

Birmingham
T: +44 (0)121 600 7500
www.ietvenues.co.uk/austincourt

IET Glasgow: Teacher Building

Glasgow
T: +44 (0)141 566 1871
www.ietvenues.co.uk/teacherbuilding
E4B14059/1000/1114

*Savoy Place will be closed for refurbishment from summer 2013 until autumn 2015. During this time IET's London home will be within the Institution of Mechanical Engineers building at:

1 Birdcage Walk
Westminster
London
SW1H 9JJ

If you are attending an event during this period, please check the venue details carefully.

www.theiet.org