

A guide to technician professional registration for students

Nake it is happened

Making more of your industrial placement

www.theiet.org/student-technician

The next step for **ambitious students**

Engineers and technicians are the backbone of the world of engineering and your specific needs are at the heart of the Institution of Engineering and Technology (IET). That's why we have invested our considerable resources into developing support designed to help you achieve the most from your life as a student and to move you seamlessly into employment.

Why technician professional registration matters

As you prepare to enter the world of work, it's critical to align your skills and experience with the needs of the businesses which will look to employ you.

In 2014 employers highlighted that the gap between what they need from their recruits and the skills graduates have to offer has grown bigger than ever, with 44% of employers surveyed stating that "recent engineering, IT and technical recruits did not meet reasonable expectations for levels of skill."*

It's an astonishing statistic.

However, they also made it plain that undergraduates achieving professional registration as an Engineering Technician (EngTech) and/ or ICT Technician (ICT *Tech*) on completion of their year in industry will have a distinct advantage when it comes to finding employment upon graduation.

It's clear that employers believe professional registration shows that students have gained the initial experience and competence to complement their academic study. They think it also demonstrates a commitment to maintaining competence and an ongoing focus on professional standards.

We agree; and technician professional registration from the IET is the practical solution which delivers for employers and for you.



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Making more of your industrial placement year

An industrial placement year provides essential experience of a working environment and gives you the opportunity to assess how your skills can best be deployed within it. Being able to achieve professional registration as an EngTech and/or ICT*Tech* at the end of your placement makes it doubly valuable. Some of you may be able to demonstrate that you meet both EngTech and ICT*Tech* competences and therefore apply for both categories of registration through the same application.

We work closely with employers to identify the skills and experience they need from you. We liaise with your university to develop work experience programmes within businesses which can fully support your professional development.

The result, technician professional registration for students – a pathway to professional registration following completion of your year in industry which will deliver a competitive advantage when you graduate.

What is professional registration and why is it so important?

Professional registration provides independent recognition of your competences that have been 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 your professionalism and commitment as well as providing the opportunity for progression within your career.

The IET is licensed by the Engineering Council to award professional engineering and ICT qualifications (EngTech, ICT*Tech*, IEng and 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 you receive these qualifications you will have an internationally recognised benchmark of your capabilities.

My experience on my placement was a massively positive one - I designed, set up, ran and reported on tests to simulate a 150,000-mile life cycle on interior car parts. I've now been fast-tracked to a graduate assessment centre, have contacts within some large automotive engineering firms and have been able to apply for EngTech – the first step to Chartered Engineer status and one of my career goals.

Calum Radcliffe MEng Mechanical Engineering, Year 3 **Placement:** Millbrook Proving Ground, Bedfordshire



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 your integrity, professionalism and dedication to your work. 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.



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What standard do I have to reach?

Standards are extremely high, and rightly so.

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

If you are applying for technician professional registration at the end of your placement year in industry, you will need to demonstrate, to the accepted standard, that you;

- **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, your own professional development and exercise responsibilities in an ethical manner.

These rigorous requirements mean that professional registration has real value and confers considerable professional status.

Dual EngTech / ICT Tech

You may be able to demonstrate the evidence and apply for both EngTech and ICT *Tech* registration, if you have engaged in solving problems and performing defined tasks in engineering as well as supporting or facilitating the use of ICT equipment and applications.

Stand out from the start

A qualification is about having the right knowledge for a job; professional registration is about demonstrating you are the right person for a job.

It provides independent recognition of the skills and knowledge you've acquired in the workplace in addition to your formal university qualification;

In a competitive jobs market it can give you a distinct advantage by:

- making you stand out professional registration could push your CV to the top of the pile
- highlighting your skills competence is easily recognised by your employer and your peers
- demonstrating your commitment professional registration is a sign of your focus on professional development
- delivering credibility and status you'll be able to use the designatory letters EngTech TMIET or ICT Tech TMIET
- creating opportunities professional registration makes you more employable and more global in your job seeking
- preparing you for the future this is a foundation for progression to either Incorporated Engineer, Chartered IT Professional, Chartered Engineer or Chartered Manager status as your career develops.

Join the IET and begin your application

Before beginning to work towards professional registration you must be a member of a professional body such as the IET. In addition to providing access to professional registration, membership means you'll receive a range of other worthwhile benefits including free access to high quality resources which are directly relevant to your studies and professional development.

As a member of the IET, excellent knowledge resources, innovative careers tools and industry networking opportunities are all on offer. Not to mention the benefits of being one of 160,000 professionals worldwide who share information, announce new findings and advise on best practice in a range of forums. For more about the benefits of membership, please visit **www.theiet.org/advantages**.

Covering the costs - who should pay?

There are three options when paying for either your membership and/or professional registration fees:

- 1. your university pays check with your lecturer or Industry Placement Co-ordinator whether your university has already paid for IET membership as part of your degree course. Your university may also consider supporting your fees for professional registration in addition to membership.
- you pay indicating your commitment to professionalism. To join us as a member, visit www.theiet.org/join or call our Member and Customer Service team for further information on tel: +44 (0) 1438 765678.
- 3. your employer pays your placement provider may support you with your professional registration fees.

How much does it cost?

Please refer to the separate insert for up-to-date fee information and payment options.

Getting started

Once your IET membership is in place and you have embarked upon your year in industry, you can start compiling evidence of knowledge and competence from your placement work, drawing upon real-life examples and aligning your workplace practice to the Engineering Council Standards for EngTech and ICT *Tech*. For the type or level of work that should be completed during a placement, please refer to the EngTech/ICT *Tech* standards, which can be found as an insert in this pack.

It is a requirement of your placement year that you keep a record of your experiences. We also recommend that your employer proactively reviews these records and provides you with constructive feedback. These records will help towards your professional registration application and may be reviewed as part of the assessment process.

It is important that you receive strong support from your university and employer throughout your placement and that the opportunity to gain technical experience is maximised. Your employer should be including coverage of the Engineering Council Competence and Commitment Standards for EngTech and/or ICT *Tech* in the content of your placement to add structure to the work experience.

They should understand that professional practice includes the ability to:

- identify the requirement, problem or process
- research the requirement, problem or process
- develop possible practical solution
- implement the conceptual solution
- test or evaluate the solution
- verify solution or improvement meets desired final specifications
- communicate the solution.



Structure your professional registration application with IET Career Manager



As a member of the IET you will benefit from free access to Career Manager – an innovative online tool which will enable you to collate information, review your progress and plan your time as you work towards professional registration.

Set the wheels in motion by using Career Manager to submit your 'Intent to Register' for professional registration at the start of your placement year. It means you'll be fully supported by the IET Professional Development team from start to finish.

To access IET Career Manager you will require an online account with the IET. To set up your online account please go to our website: www.theiet.org and register at the top of the page via MyIET (you will need your membership number to hand to complete your registration). If you already have an online account, just use your login details to access Career Manager when prompted.

Career Manager will enable you to compile and submit your application for professional registration thoroughly, accurately and to an appropriate level of detail throughout your placement year.

The longer term benefits are considerable too. It's an intuitive tool you'll come to rely on for many years to come as a means to review and recognise your skills and understand where and how to develop your career still further.

Using an industry specific tool during your industrial placement helps you to demonstrate your competence and commitment to an employer against a recognised engineering framework within a working environment.

www.theiet.org/career-manager

Career Manager will enable you to:

- stand out from the crowd by demonstrating that you're taking your professional development seriously
- create a professional-looking CV from the personal details summary and present a competence record to prospective employers which could assist with gaining interviews, a place on a graduate scheme or industrial placement
- record technical and business skills evidence developed from a university project whether working on your own or as part of a group task; effective communication and interpersonal skills are key competences for engineers/technicians who apply for professional registration
- set development objectives, action plans and training for career development by identifying training needs/further learning
- record 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
- interact with industry mentors and academics who will assist you with your Career Manager record by reviewing competence
- move and maintain your record you'll be able to take your career history and development record with you, making it a valuable tool for life. Access Career Manager 24/7 at any Internet-ready PC, so whether at home, at college/university, on a work placement or away, you can always keep your record up-to-date
- familiarise yourself with the Engineering Council Competence and Commitment Standards and other industry specific frameworks this will give you a head start on your professional development.

Your professional registration application

You must maintain detailed and accurate records of your progress throughout your placement and your professional registration application should include:

- 'current employment' details of the industrial placement
- 'education' details clearly stating title of degree course and university details; the end date should be the year you are due to complete your degree
- completed 'professional development or training schemes' with any additional skills undertaken during the placement year
- completed 'career history' with a summary of all jobs including summer jobs and any additional career development contribution
- 2 examples of detailed technical engineering or ICT (depending on your specialism) projects from your placement year illustrating the professional practice above. Evidence should be extracted from your placement diary and written into the application form (focusing on your personal input into the task/ project). It should be obvious to the IET assessor what you have been involved in and should show integrity during the placement. If you are applying for dual registration (ICT *Tech* and EngTech), you must have clear evidence of meeting both competence standards, providing one example of each ICT *Tech* and EngTech.

The two examples should clearly illustrate what you did in the project; how you knew what you had to do (give examples of any additional research needed); how and why did you select the solution you chose; what if any impact would this have on other systems/processes/persons/equipment within the company, how you reported what you did and who to, what precautions you took to prevent harm to people, equipment or data.

- 'knowledge and skills' details referencing resources and material to support your continued development
- if the university has nominated a member of academic staff to assess your applications then you will be required to provide one completed 'supporter' details and signature from your placement employer, such as your line manager. If the university does not have a nominated academic assessor you will be required to provide two supporters; the first one from your placement employer and the second from the university such as a lecturer.
- your signature
- one or two completed personalised reference forms recording performance highlights or areas of particular note by your supporter (as noted above).

Working towards ICTTech professional registration whilst I was on my industrial placement year provided me and my employer with a framework to structure and review the work I undertook and the knowledge and skills I gained. It also acted as an excellent indicator to my graduate employer that my skills had been assessed as meeting industry expectations.

Dominic Snook

BSc (Hons) Computer Network Management and Design student University of Portsmouth

If you apply via Career Manager and your university has nominated an academic assessor you will need to send the assessor a PDF of your completed application form to be reviewed.

Once professionally registered, you have a professional obligation to maintain your competence and to keep a record of your professional development (normally referred to as continuing professional development (CPD). It's a lifelong commitment to professional practices that will stand you in good stead as your career progresses.

IET Career Manager can help fulfil all of your CPD requirements. Keeping a record of evidence of achievements and experience is good practice and will help you apply for new positions as well as progress to other professional registration categories, such as Incorporated Engineer (IEng), Chartered Engineer (CEng), Chartered IT Professional (CITP) or Chartered Manager (CMgr) when your role and responsibilities develop.

Your next steps

Introducing professional registration into your industrial placement year will enhance your skills, build on your academic achievements and provide you with an industry-recognised professional qualification before you graduate.

It's up to you to make it happen.

- 1. Make sure you are a member of the IET. Check with your university if you are unsure whether membership of the IET has been paid for as part of your degree course. If you are not a member, join us at www.theiet.org/join
- Ensure you have set up an online account with the IET it's the only way to access key online tools to support your professional registration application. To set up an online account - register at the top of the IET homepage www.theiet.org
- Speak to your university careers representative and/or Industry Placement Co-ordinator about technician professional registration for students and show them the university guide included in this pack. Discuss your next steps.
- **4.** If you are already in contact with your placement employer, find out whether they have seen the employer guide also in this pack. Discuss your next steps to make your placement count.

This is your opportunity to make your year in industry count for even more with the help of the IET.

It's the best possible start to your career.



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 your 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

The Institution of Engineering and Technology

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IET Birmingham: Austin Court

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

IET Glasgow: Teacher Building

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*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.

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