

ENGINEERING COUNCIL UK

UK Standard for Professional Engineering Competence

# Engineering Technician Standard

regulating the engineering profession



# Engineering Technician Standard

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“ *The UK economy depends on improved business performance, which in turn relies to a great extent on the competence of our engineers and technicians. The UK has a proud engineering heritage, but in an increasingly competitive world our engineering competence must reflect the needs of business and industry for astute and experienced creators and managers of technology.* ”

**LORD SAINSBURY OF TURVILLE** Parliamentary Under-Secretary of State for Science and Innovation

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## FOREWORD BY LORD SAINSBURY OF TURVILLE

Parliamentary Under-Secretary of State for Science and Innovation



**THE UK ECONOMY DEPENDS ON** improved business performance, which in turn relies to a great extent on the competence of our engineers and technicians. The UK has a proud engineering heritage, but in an increasingly competitive world our engineering competence must reflect the needs of business and industry for astute and experienced creators and managers of technology.

Engineers also have a more important role than ever, as technology and the demands which we make of it become increasingly complex, in ensuring that development takes place in a way which does not cause problems for our safety or our health. They have an equally crucial part to play in minimising risk to the environment, and in bringing about sustainable development, not only in the UK but throughout the world.

The Engineering Council <sup>UK</sup> has in these standards distilled the framework of capability we should expect from our most competent engineers. We have an education system that can deliver the underlying knowledge and understanding. With the establishment of the Sector Skills Councils we have a means to nurture and develop the skills and know-how to exploit these. The SSCs will focus on sectors of strategic and economic importance, and aim to deliver change on a range of skills and productivity priorities.

At the time of writing, four SSCs have already been granted full five-year licences, and the three listed below will find the new UK-SPEC particularly relevant. These are:

- SEMTA (Science, Engineering and Manufacturing Technologies Alliance)
- e-Skills UK (ITEC skills, telecommunications)
- Construction Skills

However, there are also a number of other SSCs in development which we hope will be able to progress to being fully licensed, and several of these represent sectors in which engineering plays a vital role in success. I anticipate that by summer 2004, there will be between 23 and 25 SSCs operating under full five-year licences.

It is my hope that these standards will become the goal for every aspiring professional engineer or engineering technician, that employers will adopt them as a valuable metric for training and developing their staff, and that educators will tailor their programmes to deliver the essential learning and skills they require. In this way we can maintain our extraordinary growth and competitiveness into the 21st Century.

I am particularly pleased that the unique and vital contribution of the technician to our economy and well-being has been recognised in these standards. While engineering recognises an increasing reliance on the pragmatism and responsibility of which today's technician, many other sectors of the science, engineering and technology community are only slowly waking up to the need for professionalizing their technician workforce.

Engineering underwrites our society. With these standards the UK can maintain its strength and assure attractive careers for its practitioners.

**DAVID SAINSBURY**

## THE PURPOSE OF UK-SPEC

This Engineering Council <sup>UK</sup> Standard explains the value of becoming recognised as a professional Engineering Technician. It describes the requirements that have to be achieved for registration, and gives examples of typical ways of doing this. This standard should enable individuals and employers to find out whether they or their staff can meet the requirements, and explains the steps necessary to achieve national registration. A professional Engineering Technician carries many responsibilities, including the need to observe a professional code of conduct. These are described, together with advice on how to maintain registration and to progress to other forms of professional engineering recognition.

Finally, advice is given on the relationship of UK-SPEC to its predecessor, known as SARTOR (Standards and Routes To Registration).

### Introduction

This standard is published by the Engineering Council <sup>UK</sup> [EC<sup>UK</sup>] on behalf of the United Kingdom engineering profession. EC<sup>UK</sup> is governed by a Board representing the major professional engineering institutions in the UK, together with individuals representing industries and sectors with an interest in regulation of the engineering profession. The Engineering Technician register was established in 1974 by the Engineers Registration Board. The register is maintained by EC<sup>UK</sup>, although all those wishing to be registered must apply through one of the professional engineering institutions licensed by EC<sup>UK</sup>.

### Today's professional Engineering Technician

Professional Engineering Technicians are involved in applying proven techniques and procedures to the solution of practical engineering problems. They carry supervisory or technical responsibility, and are competent to exercise creative aptitudes and skills within defined fields of technology. Professional Engineering Technicians contribute to the design, development, manufacture,

commissioning, operation or maintenance of products, equipment, processes or services. Professional Engineering Technicians are required to apply safe systems of work.

### Why Register?

Registration has many benefits for employers, technicians and the UK economy.

Registration sets a professional Engineering Technician apart from technicians who are unregistered. It establishes their proven knowledge, understanding and competence. In particular registration demonstrates a commitment to professional standards, and to development and enhancement of competence. Hence, whether specified in job advertisements or not, registration as a professional Engineering Technician gives an edge to candidates who have achieved this.

Registration links a professional Engineering Technician into a professional engineering institution, one which has been assessed by the Engineering Council <sup>UK</sup> as capable of providing comprehensive professional development guidance and opportunities, with a regular magazine and web access to assist in this, and many opportunities to network with colleagues with similar professional interests.



Membership of professional institutions and associations does demonstrate a certain commitment to the profession and to the industry. Time and again, I have found my professional qualifications and membership of my professional organisation personally and professionally useful . . . .

**Linda Dulleu,**  
Eng Tech MIP, Senior  
Public Health Engineer,  
Cundall Johnston and  
Partners LLP

It also keeps the registered professional Engineering Technicians abreast of job opportunities and is a regular reminder of their professional standing and their obligations to society.

Employers of registered professional Engineering Technicians have the assurance of knowing that their employees have had their competence assessed, their credentials verified and their commitment to continuing professional development established. They will have gained the recognition of their peers as meeting UK and international standards for knowledge and experience. Maintaining registration ensures that they are exposed to new developments in their profession, and provides numerous opportunities to benefit from these. It also means that they are governed by a professional code of conduct, and receive reminders and assistance in determining their obligations under this code. In some cases evidence of employing registered professional Engineering Technicians will be necessary to the award of contracts in the UK and overseas.

### **International Recognition**

An increasing number of countries formally recognise the standing of Engineering Technicians, and in some cases reserve particular work to them. Evidence of registration with **ECUK** can prove helpful in applying for jobs and tendering for work in those countries. **ECUK** works closely with other countries' national bodies to further develop recognition of this important category of engineering professional. Further details are available from **ECUK** licensed professional engineering institutions and from **ECUK** International Department.

### **What is Competence?**

Registration as a professional Engineering Technician is open to everyone who can demonstrate competence to perform professional work to the necessary standards, and commitment to :

- **Maintain that competence**
- **Work within professional codes**
- **Participate actively within the profession.**

Pages 7 and 8 of this document set out threshold generic competence standards for registration as a professional Engineering Technician. These standards have widespread support and are based on occupational standards developed for the engineering and associated industries. Competence includes the knowledge, understanding and skills which underpin performance. It is attained through a mixture of education and professional development, traditionally known as the *formation process*. These different elements are described later.

### **Assessment of Competence**

Applicants seeking registration as a professional Engineering Technician must have their competence assessed by professional review. Annex A to this standard lists the professional engineering institutions licensed by **ECUK** to assess applicants. The assessment is undertaken by practising engineering professionals, trained in this kind of assessment. The assessment is undertaken against the competence standards listed in this document, which however will usually have been adapted by the institution to be more representative of the particular technologies or industries it represents.

The process of assessment starts with receipt of a written application made in accordance with the requirements of the particular institution concerned. A detailed description of the format for this will be provided by the institution, but any claim of qualifications, experience or training will need formal documented evidence.

In giving details of experience, applicants will need to show how this relates to the required competences.

Following a review of the documented evidence provided, the institution concerned will decide whether to invite the applicant for a formal interview<sup>1</sup>, or to provide further information. Assistance will be available from the institution to advise how best to present evidence of training and experience. Where deficiencies emerge, institutions will usually be able to suggest ways in which they can be addressed (although this may involve further training or additional experience). On completion of this professional review, a decision will be made by the membership committee of the institution concerned. A positive decision will result in registration of the candidate as an Engineering Technician. Retention of the title will require continued membership of the admitting institution or another licensed body and payment of an annual fee.

## **What needs to be demonstrated**

The following pages list the generic competences that have to be demonstrated in order to achieve registration as a professional Engineering Technician. Candidates who believe they measure up to these or who wish to work towards them, should approach one of the listed engineering institutions to obtain further details of how to apply for recognition and registration.

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<sup>1</sup> The interview will be conducted in English, subject only to the provisions of the Welsh Language Act 1993 and any Regulations which may be made in implementation of European Union directives on free movement of labour.

## Standards of Competence and Commitment for Engineering Technicians

### The Standard

### How you might demonstrate you met it

Engineering Technicians must be competent throughout their working life, by virtue of their education, training and experience, to:

Tell us about your career and the education and training you have received. Explain how the experience you have gained has made you more competent.

#### **A Use engineering knowledge and understanding to apply technical and practical skills.**

**The reviewers will be looking for evidence that you have the know-how to do the job, and were able to go beyond the immediate requirements and use your experience to solve a problem or improve a process.**

*This includes the ability to:*

- A1 review and select appropriate techniques, procedures and methods to undertake tasks;
- A2 use appropriate scientific, technical or engineering principles.

Describe something in your work you were involved in which didn't quite work and explain why.

Drawing from your direct experience this might be an explanation of how a piece of equipment, system or mechanism works.

#### **B Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.**

**Explain how you contribute to one or more of these activities.**

*In this context, this includes the ability to:*

- B1 identify problems and apply diagnostic methods to identify causes and achieve satisfactory solutions;
- B2 identify, organise and use resources effectively to complete tasks, with consideration for cost, quality, safety and environmental impact.

Show an example of how you have used measurement, monitoring and assessment to identify the source of a problem.

Illustrate how you make decisions about what material, component, people or plant to use or how to introduce a new method of working.

#### **C Accept and exercise personal responsibility.**

**Describe an experience or instance where you have had to accept personal responsibility for seeing a process through to completion within agreed targets.**

*This may include the ability to:*

- C1 work reliably and effectively without close supervision, to the appropriate codes of practice;
- C2 accept responsibility for work of self and others;
- C3 accept, allocate and supervise technical and other tasks.

Your evidence should show how you personally identified and agreed with what had to be done and to what standards on a typical project.

Minutes of meetings; site notes and instructions; Variation Orders; programmes of work; specifications, drawing and reports; appraisals. Voluntary work not associated with your job can contribute evidence.

## The Standard

## How you might demonstrate you met it

### D Use effective communication and interpersonal skills.

*This includes the ability to:*

D1 use oral, written and electronic methods for the communication in English of technical and other information;

D2 work effectively with colleagues, clients, suppliers and the public.

**You will need to show you can: contribute to discussions; make a presentation; read and synthesise information; write different types of documents.**

Letters, faxes, reports, drawings, advice, minutes, including of progress meetings, appraisals, work instructions, and other task planning and organising documents. Certificated by colleagues, clients, customers or management. Your application itself will be relevant.

Examples of how this has occurred, and your role at the time.

### E Make a personal commitment to an appropriate code of professional conduct, recognising obligations to society, the profession and the environment.

*In order to satisfy this commitment, they must:*

E1 comply with the Codes and Rules of Conduct of their Licensed Institution or Professional Affiliate;

E2 manage and apply safe systems of work;

E3 undertake their engineering work making and utilising risk assessments, and observing good practice with regard to the environment;

E4 carry out continuing professional development, including opportunities for this offered by their Institution, to ensure competence in areas and at the level of future intended practice.

**Your commitment will be to become part of the profession and uphold the standards to which all members subscribe. You need to show that you have read and understood your Institution Code of Conduct.**

You will need to sign a personal undertaking. The professional review involves demonstration of, or discussion of, your position on typical ethical challenges.

Evidence of current safety requirement – examples of good practice you adopt in your work. Will need to show that you have received a formal safety instruction relating to your workplace, such as a CSCS safety test, or an update on statutory regulations such as COSHH requirements.

Examples of methodical assessment of risk in specific projects; actions taken to minimise risk to health, safety or the environment.

This means demonstrating that you have actively sought to keep yourself up to date, perhaps by studying new standards or techniques, and made use of magazines, Branch meetings, and other opportunities to network in order to keep abreast of change.

### **Isuzu Truck (UK):**

*The field aftersales engineering workforce at Isuzu Truck are all members of the Society of Operations Engineers and many are registered Engineering Technicians. As an incentive towards professional recognition through registration, the company pays all of the associated fees.*

## **The value of formal education and training**

In order to gain the competences necessary for registration, a period of training and experience will have been undertaken. Formal, supervised training such as is provided by some engineering-based advanced modern apprenticeships can provide most, or all, of the training and experience necessary. Indeed some Advanced Modern Apprenticeships will lead directly to professional Engineering Technician registration.

There are two routes to registration, as follows:

### **Route A**

Candidates seeking professional Engineering Technician registration, who hold particular types of qualifications, will usually find that this greatly simplifies the process of becoming an Engineering Technician. Typical qualifications are:

- National Certificate or National Diploma in Engineering or Construction & the Built Environment
- An approved qualification in engineering or construction at level 6 in the Scottish Qualifications and Credit Framework
- The City & Guilds Higher Professional Diploma in Engineering
- A technical certificate as part of an approved Advanced Modern Apprenticeship Programme
- An approved level 3 NVQ or SVQ
- A work-based learning route approved by a licensed professional engineering institution
- Qualifications in similar areas providing they are assessed as equivalent by a licensed professional engineering institution.

### **Route B**

Candidates without the qualifications listed above may be able to apply for a Route B Appraisal. This separate procedure, administered by the applicant's institution, involves an in depth appraisal of the knowledge and experience acquired. Experienced, practising professional Engineering Technicians are often found to have gained the necessary knowledge and skills for their job through working closely with other skilled colleagues over a number of years.

### **Professional Development**

Many potential professional Engineering Technicians will not have had the advantage of formal training, and will need to demonstrate they have acquired the necessary competences through extended experience, some of this supervised. In some cases employers will make use of occupational standards in determining job descriptions and for general staff development. Evidence of employer recognition of competences and relevant skills will assist in achieving registration.

There is no requirement for 'time-serving'. Some institutions will be able to provide a mentor to assist potential candidates to address deficiencies in their training and experience portfolio.

### **Maintaining Competence**

Candidates applying for registration as professional Engineering Technician will be required to show evidence that they have taken steps to ensure that their competence is maintained, and that they intend to continue to do this. This is an important part of recognition as a professional Engineering Technician. It is for this reason that professional Engineering Technicians may only obtain and retain registration if they are members of one of the licensed professional engineering institutions. It is important that candidates seeking registration recognise that this will entail obligations and an ongoing commitment.

## Professional Behaviour

A professional Engineering Technician will be expected to observe the requirements of the Code of Conduct of the professional engineering institution they have joined. Institutions are obliged to respond to allegations of infringement of the code and may suspend or remove membership and registration if proven. Institution Codes of Conduct follow the generic framework detailed below:

### Guidelines for Institution Codes of Conduct

Each licensed engineering institution will place a personal obligation on its members to act with integrity, in the public interest, and to exercise all reasonable professional skill and care to:

- 1 Prevent avoidable danger to health or safety.
- 2 Prevent avoidable adverse impact on the environment.
- 3
  - 1) Maintain their competence.
  - 2) Undertake only professional tasks for which they are competent.
  - 3) Disclose relevant limitations of competence.
- 4
  - 1) Accept appropriate responsibility for work carried out under their supervision.
  - 2) Treat all persons fairly, without bias, and with respect.
  - 3) Encourage others to advance their learning and competence.
- 5
  - 1) Avoid where possible real or perceived conflict of interest.
  - 2) Advise affected parties when such conflicts arise.
- 6 Observe the proper duties of confidentiality owed to appropriate parties.
- 7 Reject bribery.
- 8 Assess relevant risks and liability, and if appropriate hold professional indemnity insurance.
- 9 Notify the institution if convicted of a criminal offence or upon becoming bankrupt or disqualified as a Company Director.
- 10 Notify the institution of any significant violation of the institution's Code of Conduct by another member.

## Revalidation

The engineering profession does not, at present, require formal revalidation of professional registration. However, steps are being taken to create a voluntary register of those who seek revalidation, and to provide the means to assess and certify continuing competence. Nevertheless, it is recognised that most registrants will not seek revalidation. They are therefore reminded of their professional obligation to maintain their competences up to date, and that they may be removed or suspended from membership and registration if they are found not to have complied.

### Where to seek help

A list of professional engineering institutions licensed to register professional Engineering Technicians at the time of publishing appears at Annex A. An up to date listing of the institutions holding these licences may be obtained from the **ECUK** website [www.engc.org.uk](http://www.engc.org.uk).

Further help and advice on education and training issues may be obtained from Sector Skills Councils. An up to date list of these may be obtained from [www.ssda.org.uk](http://www.ssda.org.uk).

In the event that additional advice is required please contact the **ECUK** Registration Department at the address given on the back of this document.

### Appeals

Candidates applying for professional Engineering Technician registration are entitled to appeal against the decision of the membership committee of the licensed engineering institution to which they have applied. **ECUK** reviews all licensed institutions and requires that they have robust and effective systems. These include procedures to deal fairly and openly with contested membership and registration decisions. However, **ECUK** is unable to intervene



*Project work is a team effort, everyone matters. The greatest design by the brightest engineers will not succeed without quality engineering throughout the team. That's why it is important for all engineers to register at every grade.*

**Michelle Richmond,**  
CEng FIIE MIEE

**Ford:**

*Ford encourages excellence and continuing professional development in its managers, engineers and technicians. The company actively supports its employees towards their initial membership of the appropriate professional bodies and their continuing engagement as a means to achieve and maintain this excellence. Specifically, Ford continues to support professional engineering institutions and overarching organisations including the Engineering Council <sup>UK</sup>.*

in the decision of a licensed professional engineering institution.

### **Previous registration standards – SARTOR**

The requirements for registration as a professional Engineering Technician were established in the first edition of Standards And Routes to Registration (SARTOR) in 1984, and amended and updated in the second and third editions (1990 and 1997 respectively). This standard is a direct successor to that document. Any applicant eligible for registration under the previous standard should have no difficulty in satisfying UK-SPEC. The main changes to the original requirements have broadened the range of competences embraced, while emphasising responsibilities and obligations undertaken by professional Engineering Technicians. Most of the competences described in this document can be directly related to those listed in the previous edition of SARTOR (Edition 3, 1997).

### **Recognition as a Chartered Engineer or Incorporated Engineer**

Achievement of registration as a professional Engineering Technician is valuable recognition in its own right. It has also been found by many to provide a good foundation for transition to other registration categories. Once again, evidence of competence, usually underpinned by documented qualifications, is the normal requirement. In exceptional cases, a career appraisal may lead to recommendation that these are unnecessary, but normally there will be a need for further education and training to meet the standards required of these categories. Copies of the UK-SPEC Standard for professional engineers are obtainable from **EC<sup>UK</sup>**.

### **Acronyms used in this standard**

COSHH	Control of Substances Hazardous to Health Regulations
CSCS	Construction Skills Certification Scheme
EC <sup>UK</sup>	Engineering Council <sup>UK</sup>
NVQ	National Vocational Qualification
SVQ	Scottish Vocational Qualification
SARTOR	Standards And Routes to Registration (the previous registration standard)
UK-SPEC	UK Standard for Professional Engineering Competence (this standard)

**British Computer Society**

*Established: 1957*  
 1 Sanford Street  
 Swindon  
 Wilts SN1 1HJ  
 Phone: 01793 417417  
 Fax: 01793 480270  
 Email: bcsdq@hq.bcs.org.uk  
 Website: www.bcs.org.uk

**British Institute of  
 Non-Destructive Testing**

*Established: 1954*  
 1 Spencer Parade  
 Northampton NN1 5AA  
 Phone: 01604 630124/5  
 Fax: 01604 231489  
 Email: info@bindt.org  
 Website: www.bindt.org

**Chartered Institution of Building  
 Services Engineers**

*Established: 1897*  
 Delta House  
 222 Balham High Rd  
 London SW12 9BS  
 Phone: 020 8675 5211  
 Fax: 020 8675 5449  
 Email: enquiries@cibse.org  
 Website: www.cibse.org

**Chartered Institution of Water  
 and Environmental Management**

*Established: 1895*  
 15 John Street  
 London WC1N 2EB  
 Phone: 020 7831 3110  
 Fax: 020 7405 4967  
 Email: admin@ciwem.org.uk  
 Website: www.ciwem.org.uk

**Institution of Agricultural Engineers**

*Established: 1938*  
 West End Road  
 Silsoe  
 Bedford MK45 4DU  
 Phone: 01525 861096  
 Fax: 01525 861660  
 Email: secretary@iagre.org  
 Website: www.iagre.org

**Institution of Civil Engineers**

*Established: 1818*  
 1-7 Great George St  
 London SW1P 3AA  
 Phone: 020 7222 7722  
 Fax: 020 7222 7500  
 Email: profdev@ice.org.uk  
 Website: www.ice.org.uk

**Institute of Cast Metals Engineers**

*Established: 1904*  
 ICME Metalforming Centre  
 47 Birmingham Road  
 West Bromwich  
 West Midlands B70 6PY  
 Phone: 0121 601 6979  
 Fax: 0121 601 6981  
 Email: info@icme.org.uk  
 Website: www.icme.org.uk

**Institution of Engineering Designers**

*Established: 1945*  
 Courtleigh  
 Westbury Leigh, Westbury  
 Wilts BA13 3TA  
 Phone: 01373 822801  
 Fax: 01373 858085  
 Email Address: ied@ied.org.uk  
 Website: www.ied.org.uk

**IEE**

*Established: 1871*  
 Michael Faraday House  
 Six Hills Way  
 Stevenage  
 Herts SG1 2AY  
 Phone: 01438 313311  
 Fax: 01438 313465  
 Email: postmaster@iee.org  
 Website: www.iee.org

**Institution of Fire Engineers**

*Established: 1918*  
 148 Upper New Walk  
 Leicester LE1 7QB  
 Phone: 0116 255 3654  
 Fax: 0116 247 1231  
 Email: info@ife.org.uk  
 Website: www.ife.org.uk

**Institution of Gas Engineers  
 and Managers**

*Established: 1863*  
 Charnwood Wing  
 Ashby Road  
 Loughborough  
 Leicestershire LE11 3GR  
 Phone: 01509 282728  
 Fax: 01509 283110  
 Email: general@igem.org.uk  
 Website: www.igem.org.uk

**Institute of Healthcare Engineering  
 & Estate Management**

*Established: 1943*  
 2 Abingdon House  
 Cumberland Business Centre  
 Northumberland Road  
 Portsmouth PO5 1DS  
 Phone: 023 9282 3186  
 Fax: 023 9281 5927  
 Email: membership@iheem.org.uk  
 Website: www.iheem.org.uk

**Institute of Highway Incorporated  
 Engineers**

*Established: 1965*  
 20 Queensberry Place  
 London SW7 2DR  
 Phone: 020 7823 9093  
 Fax: 020 7581 8087  
 Email: secretary@ihie.org.uk  
 Website: www.ihie.org.uk

**Institution of Incorporated Engineers**

*Established: 1884*  
 Savoy Hill House  
 Savoy Hill  
 London WC2R 0BS  
 Phone: 020 7836 3357  
 Fax: 020 7497 9006  
 Email: info@iie.org.uk  
 Website: www.iie.org.uk

**Institution of Lighting Engineers**

*Established: 1923*  
 Regent House  
 Regent Place  
 Rugby  
 Warwickshire CV21 2PN  
 Phone: 01788 576492  
 Fax: 01788 540145  
 Email: info@ile.org.uk  
 Website: www.ile.org.uk

**Powergen:**

Powergen has a scheme to encourage engineers to gain official accreditation. The Powergen Professional Engineering Development Scheme provides engineers with a structured programme for achieving the required qualifications, training and experience.

**Paul Golby**, Powergen's Chief Executive, has a doctorate in Mechanical Engineering and is a fellow of the Institution of Electrical Engineers. He feels strongly that achieving professional status brings benefits both to the individual and to the company. "It is unequivocal evidence of education, training, competency and experience and your qualification has global recognition. It is useful for overseas' business and reinforces shareholder confidence that appropriately qualified personnel are employed in positions of authority."

**RAF:**

The RAF's internal training procedures are augmented, where appropriate, by formal accreditation from a professional engineering institution. Acknowledgement of their skills through professional registration is also actively promoted. Records are kept on registered personnel so that they can be assigned to specific, key tasks and can support others seeking registration.

**Institute of Materials, Minerals and Mining**

*Established: 1869*  
1 Carlton House Terrace  
London SW1Y 5DB  
Phone: 020 7451 7300  
Fax: 020 7839 1702  
Email: admin@iom3.org  
Website: www.iom3.org

**Institute of Marine Engineering, Science and Technology**

*Established: 1889*  
80 Coleman Street  
London EC2R 5BJ  
Phone: 020 7382 2600  
Fax: 020 7382 2670  
Email: info@imarest.org  
Website: www.imarest.org

**Institution of Nuclear Engineers**

*Established: 1959*  
1 Penerley Road  
London SE6 2LQ  
Phone: 020 8698 1500  
Fax: 020 8695 6409  
Email: inucewh@aol.com  
Website: www.inuce.org.uk

**Institute of Acoustics**

*Established: 1974*  
77A St Peter's Street  
St Albans  
Herts AL1 3BN  
Phone: 01727 848195  
Fax: 01727 850553  
Email: ioa@ioa.org.uk  
Website: www.ioa.org.uk

**Institute of Physics & Engineering in Medicine**

*Established: 1960*  
Fairmount House  
230 Tadcaster Road  
York YO24 1ES  
Phone: 01904 610821  
Fax: 01904 612279  
Email: office@ipem.org.uk  
Website: www.ipem.org.uk

**Institution of Railway Signal Engineers**

*Established: 1912*  
Savoy Hill House  
Savoy Hill  
London WC2R 0BS  
Phone: 020 7240 3290  
Fax: 020 7240 3281  
Email: hq@irse.org  
Website: www.irse.org

**Institution of Water Officers**

*Established: 1945*  
4 Carlton Court  
Team Valley  
Gateshead  
Tyne & Wear NE11 0AZ  
Phone: 0191 422 0088  
Fax: 0191 422 0087  
Email: lynn@iwo.org.uk  
Website: www.iwo.org.uk

**Energy Institute**

*Established: 1927*  
61 New Cavendish Street  
London W1G 7AR  
Phone: 020 7255 1472  
Fax: 020 7580 4420  
Email: info@energyinst.org.uk  
Website: www.energyinst.org.uk

**Institute of Measurement and Control**

*Established: 1944*  
87 Gower Street  
London WC1E 6AF  
Phone: 020 7387 4949  
Fax: 020 7388 8431  
Email: education@instmc.org.uk  
Website: www.instmc.org.uk

**Institute of Plumbing**

*Established: 1906*  
64 Station Lane  
Hornchurch  
Essex RM12 6NB  
Phone: 01708 472791  
Fax: 01708 448987  
Email: info@plumbers.org.uk  
Website: www.plumbers.org.uk

**Royal Aeronautical Society**

*Established: 1866*  
4 Hamilton Place  
London W1J 7BQ  
Phone: 020 7499 3515  
Fax: 020 7499 6230  
Email: raes@raes.org.uk  
Website: www.raes.org.uk

**Royal Institution of Naval Architects**

*Established: 1860*  
10 Upper Belgrave Street  
London SW1X 8BQ  
Phone: 020 7235 4622  
Fax: 020 7259 5912  
Email: hq@rina.org.uk  
Website: www.rina.org.uk

**Society of Environmental Engineers**

*Established: 1959*  
The Manor House  
High Street  
Buntingford  
Herts SG9 9AB  
Phone: 01763 271209  
Fax: 01763 273255  
Email: office@environmental.org.uk  
Website: www.environmental.org.uk

**Society of Operations Engineers**

*Established: 1945*  
22 Greencoat Place  
London SW1P 1PR  
Phone: 020 7630 1111  
Fax: 020 7630 6677  
Email: membership@soe.org.uk  
Website: www.soe.org.uk

**Welding Institute**

*Established: 1923*  
Granta Park  
Great Abington  
Cambridge CB1 6AL  
Phone: 01223 891162  
Fax: 01223 892588  
Email: twi@twi.co.uk  
Website: www.twi.co.uk

Engineering Council <sup>UK</sup>  
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Detail of Selfridge Building,  
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