

recognising professional excellence



### REGULATING THE ENGINEERING PROFESSION

### ABOUT THE ENGINEERING COUNCIL

Every day we entrust our wellbeing, health and safety to machines and devices developed and maintained by professional engineers and technicians. Imagine how uncertain life would be if their decisions were not based on sound principles and wide knowledge of practice. The Engineering Council is charged with regulating the engineering profession in the UK, and influencing the training and education required to practise engineering.

Operating under a Royal Charter, the Engineering Council maintains the national registers of Chartered Engineers (CEng), Incorporated Engineers (IEng), Engineering Technicians (EngTech) and Information and Communications Technology Technicians (ICT*Tech*). It also sets and maintains the internationally recognised standards of competence and ethics that govern the award and retention of these titles. By this means it is able to ensure that employers, government and wider society – both at home and overseas – can have confidence in the skills and commitment of the professionally qualified engineers and technicians who meet our standards.

Nearly a quarter of a million men and women have met the standards for registration with the Engineering Council; around a quarter of them domiciled overseas. The Engineering Council is an active member of international organisations and agreements, enabling it to exert real influence internationally. This benefits not only individual registrants but also UK engineering businesses and the UK system of engineer education.

#### Mission

To maintain internationally recognised standards of competence and commitment for the engineering profession, and to license competent institutions to champion the standards.

### Vision

That society has confidence and trust in the engineering profession.

# WELL CONNECTED

### Partners

Licences are granted by the Engineering Council to professional engineering institutions, allowing them to assess candidates for inclusion on its registers of professional engineers and technicians, and to accredit academic programmes and professional development schemes. For details of institutions licensed by the Engineering Council please visit: www.engc.org.uk

In addition to its many licensed institutions, the Engineering Council has around 20 professional affiliates. Acceptance as a professional affiliate is recognition of an organisation's credentials as a learned society and of its desire to promote the science and practice of engineering.

### Collaboration

The Engineering Council has strong ties with a wide range of key organisations – including the Quality Assurance Agency (QAA), the Engineering Professors' Council (EPC), employer's organisations and many Sector Skills Councils – and works particularly closely with EngineeringUK, with whom it shares offices. Its links with government are principally through the Department for Business, Innovation and Skills (DBIS), the Department of Justice and the Home Office.

There is also significant collaboration with the Science Council and the Society for the Environment, both of whom are developing their registration and accreditation systems based on the Engineering Council model. The Engineering Council also maintains the Science Council's register of Chartered Scientists.

#### Governance

The Engineering Council is governed by a Board of Trustees. Of its 22 members, 15 are appointed by the licensed institutions and the remainder by EngineeringUK. The Board operates through a small number of committees and panels, including the Registration Standards Committee (RSC), Quality Assurance Committee (QAC) and International Advisory Panel (IAP).

### SETTING AND MAINTAINING STANDARDS

### Professional qualifications

To apply for the CEng, IEng, EngTech or ICT*Tech* titles an individual must be a member of one of the engineering institutions and societies that are licensed by the Engineering Council to assess suitably qualified candidates. (For a full list see: www.engc.org.uk). Applicants must demonstrate that they possess a range of technical and personal competences. They must also show a commitment to keeping these skills up-to-date, and to behaving in a professionally and socially responsible manner.

### Professional standards

Would-be registrants are assessed against UK-SPEC (the UK Standard for Professional Engineering Competence) or the ICT Technician Standard criteria. Both documents are fully endorsed by the profession. The Engineering Council ensures that the competence it calls for continues to be that required by employers of engineers and technicians.

### Recognising programmes and qualifications

Accrediting or approving engineering education and training programmes and qualifications is an important activity for the Engineering Council. This is effected through the engineering institutions licensed to do this work. Programmes, schemes and qualifications which have been recognised include a range of Advanced and Modern Apprenticeships, and vocational qualifications, as well as engineering degrees and graduate development programmes. The emphasis in all cases is on the outcome of each programme. Holding an accredited or approved qualification, or completing an approved programme, can make professional qualification a more straightforward process.

### Ensuring consistency

The Engineering Council closely monitors and supports its licensed institutions to ensure a correct and consistent approach to applying the UK-SPEC standard. It is aided in this by a large team of volunteers. It also encourages and facilitates co-operation between institutions, with the aim of disseminating good practice. The Engineering Accreditation Board (EAB) – a grouping of all the institutions that are licensed to accredit degrees – is one example of how effective this can be.

## DRIVING AND MONITORING DEVELOPMENTS

### Work-based route to IEng and CEng professional qualifications

The Engineering Council is resolute in its commitment to high standards. However, it also reflects the UK tradition that entry to the engineering profession should be accessible to as broad a range of people as possible. It has therefore worked with universities, employers and the engineering institutions to develop processes for professional qualification which integrate, within the workplace, education and supervised professional development. This enables people at any stage in their engineering career to progress to IEng or CEng registration and get an academic qualification too; maximising their employment and earnings prospects without having to incur large debts.

### Ethics and sustainability

The Engineering Council takes the ethical practice of engineering very seriously, working with the Royal Academy of Engineering and the Engineering Professors' Council (EPC) on ethical guidance. During 2009 the Engineering Council published guidance on sustainability for the engineering profession and has clarified disciplinary mechanism requirements for engineers who fail to meet published codes of conduct.

### New register for ICT

The Engineering Council has launched a new register intended to recognise the burgeoning numbers of Information and Communications Technology Technicians on whom so many businesses and activities depend.

### Education and skills

The Engineering Council follows and tries to influence all developments that are relevant to the professional formation of engineers and technicians. Notable examples of this are:

- the 'Bologna process', under which nearly 50 European countries have agreed to align their higher education systems. The Engineering Council has worked closely with the government departments concerned and with Universities UK, and has produced guidance for UK universities on the implications of the process for UK engineering degrees
- apprenticeships, where it has worked with Sector Skills Councils with an interest in engineering, to clarify government requirements and ensure high quality apprenticeship frameworks in engineering.

# INTERNATIONAL RECOGNITION

The Engineering Council works to promote international consensus on the standards for engineering practice, recognising the increasing importance of this for individuals and businesses in a global economy.

### EUROPE

### Influencing developments

The main forum is the European Federation of National Engineering Associations (FEANI), which is regularly consulted by the European Commission.

Through FEANI the Engineering Council is able to influence developments such as the EU Directive on Recognition of Professional Qualifications. It also advises the UK government on the Directive's implementation.

Suitably qualified engineers who are registered with the Engineering Council, or other FEANI members, can apply for the title of European Engineer (EUR ING) which is intended as a guarantee of competence that is accepted across Europe. Chartered Engineers have little difficulty attaining this award.

The Engineering Council has played a leading role in developing the EUR-ACE framework for engineering degrees. This is backed by the European Commission and aims to improve mobility within Europe for students and graduates.

### THE WIDER WORLD

### Mutual recognition

The Engineering Council makes its presence felt through the International Engineering Alliance (IEA), made up of mainly non-European national organisations. Through the IEA the Engineering Council is a signatory to three agreements to recognise engineering academic qualifications, the oldest and best known of which is the Washington Accord.

Members of the Washington Accord have agreed to recognise fellow signatories' engineering education accreditation processes and – by extension – their accredited degrees. The holders of such degrees are generally exempt from needing further academic qualifications to practise engineering in other member countries.

The Engineering Council is playing an active role in ensuring the Accord adapts to changing circumstances. It has also supported efforts to bring new countries into the Accord and to enhance global mobility.

While the Washington Accord covers the type of degrees that would typically be needed for CEng registration, the two other academic accords – Sydney Accord and Dublin Accord – relate to recognition of IEng and EngTech qualifications.

### International register

The Engineering Council is a member of the Engineers' Mobility Forum (EMF). The EMF has created the International Register of Professional Engineers and the associated IntPE title. The register's UK section is held by the Engineering Council and a growing number of Chartered Engineers have successfully applied for the IntPE award.

### Migration

Engineering Council representatives work closely with the Home Office's Migration Advisory Committee on the operation of immigration legislation. Their work includes identifying emerging skills shortages and advising whether applicants for these occupations should qualify for the fast-track visa scheme.





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246 High Holborn London WC1V 7EX

T +44 (0)20 3206 0500 F +44 (0)20 3206 0501 info@engc.org.uk www.engc.org.uk