

# Civil Engineering in the UK

Guidance for Ingenieros de Caminos  
October 2011



## Introduction

This document is intended to advise Ingenieros de Caminos, Canales y Puertos about exercising their profession in the United Kingdom, how they can obtain membership of the Institution of Civil Engineers (ICE) and the benefits of becoming a member.

If you have any questions that are not answered by this guide or you would like further information, please contact:

Jose Cordovilla

ICE Representative for Spain

[jose.cordovilla@gmail.com](mailto:jose.cordovilla@gmail.com)

If you have specific questions about the application process, please contact

[erp@ice.org.uk](mailto:erp@ice.org.uk)

t +44 (0)20 7665 2174

Please contact the Colegio de Ingenieros de Caminos for further specific guidance if you intend to apply for membership:

CICCP International Relations Service

[servicio.internacional@ciccp.es](mailto:servicio.internacional@ciccp.es)

t +34 (0)913 081 988

## The Civil Engineering Profession in the UK

Membership of the Institution of Civil Engineers (MICE) is the means of demonstrating competence and professional commitment as a civil engineer in the UK. It is highly valued by employers. Membership also enables civil engineers to register with the Engineering Council as a Chartered Engineer or Incorporated Engineer. These professional qualifications are regulated professional titles which are protected by Royal Charter and recognised as such under European Directive 2005/36.

In general there is no restriction on the right to practice as an engineer in the UK. However there are a small number of areas of work, generally safety related, which are reserved by Statute to licensed or otherwise approved persons. These areas of work include, amongst others:

- Reservoir Design and Inspection
- Quarry Management
- Railway Signalling

Civil engineering employers in the UK range from small firms to large, multinational companies. Civil engineering organisations are involved with the planning, design, construction and maintenance of:

### **Transport systems**

Roads, railways, airports, canals, harbours, jetties, bridges and tunnels to transport goods and people swiftly and safely.

### **Public health services**

Water supplies, dams, reservoirs, pipelines to provide safe water and hydroelectric power; sewers, sewage treatment works, sewage outfalls to prevent pollution and disease; irrigation and drainage schemes to increase arable land.

### **Structures**

Bridges, viaducts, oil platforms, electricity distribution grids, foundations and structural frameworks for buildings of all types from houses and schools to offices and factories, sports stadiums and hospitals, flood and coastal protection, land drainage, river embankments, breakwaters and sea walls.

Broadly speaking there are three types of civil engineering employer:

### **1. Clients**

Organisations or individuals that commission a project. Some clients do not have engineers on their staff full-time so they hire external consultants. But others – like the Highways Agency, Environment Agency, Network Rail, water companies and property developers – are responsible for building, running and managing assets that require full-time input from engineers. You could get involved with feasibility studies and outline design, detailed design, project management and, ultimately, managing the finished asset. Usually once a project has been planned by in-house engineers, the client hands it over to consultants and contractors to construct the detailed design and building.

### **2. Consultancy firms**

Consultants get involved with planning and designing projects. Consulting engineers may be hired at the start of a project to help with feasibility and costing, or may be hired later, when the client wants detailed design work carried out. Work includes preparing tenders, technical design, preparing design, etc. Much of a consultant's work is office-based, but they also supervise on-site work.

### **3. Contractors**

Contractors build the projects, employing labour and bringing in equipment and materials to translate the designer's plans into reality. Contractors employ engineers to implement the designs and manage the work on-site, do calculations, site surveys and detailed drawings.

## The Institution of Civil Engineers (ICE)

### 1. Introduction

The Institution of Civil Engineers (ICE) is a global membership organisation that promotes and advances civil engineering around the world. Our purpose is to qualify professionals engaged in civil engineering, exchange knowledge and best practice, and promote their contribution to society. ICE was founded in 1818 and was granted a Royal Charter in 1828.

ICE is the main qualifying body for civil engineering and has over 80,000 members in 159 countries worldwide. We ensure that the professional high standards needed to become a civil engineer are met. Our members are amongst the very best civil engineers in the world and uphold our core values of integrity, trust, ethical behaviour, quality and professionalism.

ICE is an internationally recognised source of civil engineering knowledge and expertise. Thanks to our members, ICE has the authority to inform and advise government by producing reports on issues ranging from sustainable engineering, to transport and waste management. We also respond to government consultations, give evidence at government inquiries and publish briefings and position statements to influence politicians and key decision-makers.

### 2. Membership Grades

There are eight grades of membership designed to fully reflect the structure of today's industry.

- Student
- Graduate
- Technician Member
- Associate Member
- Member (Chartered and Incorporated)
- Fellow
- Affiliate and Companion

Associate Members, Members and the majority of Fellows are professionally qualified and linked with Engineering Council registration as a Chartered Engineer, Incorporated Engineer or Engineering Technician. ICE's professionally

qualified grades of membership are internationally recognised and highly valued.

Being part of ICE says more about your professional standing and ability than qualifications alone. It is a sign of your dedication and personal achievement, and a benchmark of a technician's or engineer's competencies.

### 3. Benefits of Membership

Professional qualification with ICE offers a wide range of benefits:

- An internationally recognised and highly respected qualification
- Access to ICE's unique global network with representatives in over 90 countries
- Free access to ICE's virtual library, one of the world's most comprehensive civil engineering libraries
- Access to the Proceedings of ICE, an extensive suite of civil engineering Learned Society journals
- Opportunities to network and share knowledge
- Monthly copy of New Civil Engineer International (NCEI) magazine
- Extensive social and learning events worldwide

### 4. Routes to Membership

#### European Directive Route

Ingenieros de Caminos who are EU nationals and have qualified directly with CICCIP are eligible to apply for ICE Members with Chartered Engineer registration (CEng MICE) in line with the European Directive 2005/36 concerning the recognition of professional qualifications across the EU.

You should therefore consider making an application by the European Directive route. Applications can be made at any time and the process usually takes between 3-6 months.

For more information about this route please visit our European Directive route webpage and download our detailed guidance and application

form: [www.ice.org.uk/mgn28](http://www.ice.org.uk/mgn28) and  
[www.ice.org.uk/ice3136](http://www.ice.org.uk/ice3136)

## Professional Review

Ingenieros de Caminos seeking CEng MICE may alternatively follow ICE's direct qualification route which is formed of 3 stages:

1. Educational Base – ICE will check that your qualification is accredited for CEng registration
2. Initial Professional Development – ICE will check you have had the required experience either by having completed a certified Training Agreement (if you are a graduate engineer working for an ICE Approved Employer) or a Career Appraisal (if you are an experienced engineer). Please visit [www.ice.org.uk/ipd](http://www.ice.org.uk/ipd) for more information on this stage.
3. Professional Review - will assess that you possess the required Chartered Member attributes through a face-to-face presentation and interview. Please visit [www.ice.org.uk/professional-review](http://www.ice.org.uk/professional-review) for more information on this stage.

## 5. Member Attributes

Whichever route you apply by, you must successfully demonstrate that you are competent in the 9 Member Attributes to Chartered level. Those attributes are:

1. Engineering Knowledge and Understanding
2. Engineering Application
3. Management and Leadership
4. Independent Judgement and Responsibility
5. Commercial Ability
6. Health, Safety and Welfare
7. Sustainable Development
8. Interpersonal Skills and Communication
9. Professional Commitment

Please refer to MGN 3 for the full details of the attributes [www.ice.org.uk/mgn3](http://www.ice.org.uk/mgn3).

## 6. Continuing Professional Development

Continuing Professional Development (CPD) is a requirement of ICE membership. It is defined as the systematic maintenance, improvement and broadening of knowledge and skills. CPD covers technical and professional topics throughout your working life.

CPD is not just a matter of attending courses and conferences - it is also about identifying the knowledge and skills you wish to develop and planning how you will achieve this.

Record templates and further information on planning and recording your CPD can be found in ICE 3190 and ICE 3006A.

Please visit [www.ice.org.uk/cpd](http://www.ice.org.uk/cpd) for more information.

## 7. Code of Professional Conduct

The ICE has a Code of Professional Conduct, which lays out the ethical standards by which all its members must abide. The code applies to all members, irrespective of their grade, the professional role they fulfil, and the countries in which they practise.

Members can be removed from membership if they breach the code. Please visit [www.ice.org.uk/conduct](http://www.ice.org.uk/conduct) for more information.

## Useful Links

### Key Contacts

ICE representative in Spain: Jose Cordovilla  
[jose.cordovilla@gmail.com](mailto:jose.cordovilla@gmail.com)

For questions about the application process, please contact the ERP Executive:  
[erp@ice.org.uk](mailto:erp@ice.org.uk) or telephone +44 (0) 20 7665 2174.

If you intend to make an application, please contact the CICCIP International Relations Service:  
[servicio.internacional@ciccp.es](mailto:servicio.internacional@ciccp.es) or telephone +34 (0) 913 081 988.

### Institution of Civil Engineers

Main website	<a href="http://www.ice.org.uk">www.ice.org.uk</a>
ICE Spain	<a href="http://www.ice.org.uk/nearyou/Europe/Spain">www.ice.org.uk/nearyou/Europe/Spain</a>
ICE Membership	<a href="http://www.ice.org.uk/Membership">www.ice.org.uk/Membership</a>
European Directive Route	<a href="http://www.ice.org.uk/europeandirective">www.ice.org.uk/europeandirective</a>
MGN28	<a href="http://www.ice.org.uk/mgn28">www.ice.org.uk/mgn28</a>
ICE Professional Code of Conduct	<a href="http://www.ice.org.uk/conduct">www.ice.org.uk/conduct</a>
CPD	<a href="http://www.ice.org.uk/cpd">www.ice.org.uk/cpd</a>
ICE Library	<a href="http://www.ice.org.uk/Information-resources/Library">www.ice.org.uk/Information-resources/Library</a>

### Industry News and Publications

New Civil Engineer	<a href="http://www.nce.co.uk">www.nce.co.uk</a>
Engineering Journals	<a href="http://www.thomastelford.com">www.thomastelford.com</a>

### Job Seeking

ICE Recruit	<a href="http://www.icerecruit.com">www.icerecruit.com</a>
NCE Jobs	<a href="http://www.ncejobs.co.uk">www.ncejobs.co.uk</a>
Thomas Telford Recruitment	<a href="http://www.ttrecruit.co.uk">www.ttrecruit.co.uk</a>

### Other Institutions, Public Bodies and Associations

Engineering Council	<a href="http://www.engc.org.uk/default.aspx">www.engc.org.uk/default.aspx</a>
Highways Agency	<a href="http://www.highways.gov.uk">www.highways.gov.uk</a>
Environment Agency	<a href="http://www.environment-agency.gov.uk">www.environment-agency.gov.uk</a>
Network Rail	<a href="http://www.networkrail.co.uk">www.networkrail.co.uk</a>
OFWAT	<a href="http://www.ofwat.gov.uk">www.ofwat.gov.uk</a>
Construction Industry Council	<a href="http://www.cic.org.uk/home/index.shtml">www.cic.org.uk/home/index.shtml</a>
Institution of Structural Engineers	<a href="http://www.istructe.org">www.istructe.org</a>