

Application Guidance for Chartered Engineer (CEng)

The work of a Chartered Engineer (CEng) is characterised by their ability to develop appropriate solutions to engineering problems, using new or existing technologies, through innovation, creativity and change. They might develop and apply new technologies, promote advanced designs and design methods, introduce new and more efficient production techniques, marketing and construction concepts, pioneer new engineering services and management methods. Chartered Engineers are engaged in technical and commercial leadership and possess effective interpersonal skills. They demonstrate a personal and professional commitment to society, to their profession, and to the environment.

To become a Chartered Engineer you need:

- to be able to demonstrate competence within the field of refrigeration
- to meet the academic requirements for registration
- to submit an Engineering Practice Report, work experience listing, organisation chart and development action plan
- to participate in an Interview

The Engineering Council (UK) has established competence criteria for Chartered Engineer Registration. You should demonstrate your competence through your Engineering Practice Report by showing you can:

- Demonstrate analytical and problem-solving skills
- Evaluate evidence, arguments and assumptions
- Reach sound judgements
- Communicate effectively

Minimum Academic Requirements

The academic standard for CEng registration is any EC^{UK} listed BEng (Hons) degree plus a period of further learning to Master's level **or** an accredited MEng degree **or** an accredited BEng (Hons) degree started prior to September 1999. For full details on EC^{UK} listed accredited courses, see www.engc.org.uk. **If you are in any doubt, complete a qualification assessment form, available at www.ior.org.uk and send to IOR with a summary CV.**

Applying for CEng Registration

All applicants for CEng Registration must demonstrate that they have obtained the necessary competence level for that particular grade. This is done through written documentation submitted with the application form and through participating in a competence-based interview. This guide has been designed to provide information on how to prepare the documentation, advice on the interview format and how to best prepare.

Your Application

The application is in five parts:

- **Application Form**
- **Work experience listing**
- **Engineering Practice Report**
- **Organisation chart**
- **Development Action Plan**

Application Form

It is important that **contact details** provided are accurate and up to date. Should any of them change during the course of your application being processed you need to contact the IOR immediately to ensure that we are able to notify you of progress.

Your application must be signed and supported by a **sponsor** who is responsible for ensuring that they are satisfied that the information in your application is true and that you are applying for the appropriate level of registration. They must endorse copies of qualifications, having seen the originals. Please ensure that they read this guide and the Competence Criteria for Chartered Engineer.

Your sponsor should have known you for a minimum period of one year and will normally be a Fellow or Member of IOR or CEng registered with an engineering institution.

Information of qualifications obtained must be supported by enclosing **copies of certificates, signed by your sponsor**. *For overseas applicants where the certificates are in languages other than English, an approved English translation must also be provided.*

Remember to sign your application form before submitting it to IOR.

Checks:

- ✓ Have you checked your qualifications on the ECUK website or by submitting a qualification assessment form to IOR?
- ✓ Has your sponsor signed both your application form and copies of qualification certificates?
- ✓ Have you signed the form?
- ✓ Have you included card payment details or enclosed a cheque covering the interview fee?

Work Experience Listing

This document should outline previous **roles and responsibilities** in chronological order. Should you wish, your existing CV can be enclosed for this purpose. *References to the Competence Criteria should **not** be included in this section.*

Engineering Practice Report

Your Engineering Practice Report (EPR) should clearly demonstrate how you have **achieved competence** at a **level of responsibility** suitable for CEng Registration.

The EC^{UK} Threshold Standards of Competence and Commitment are divided into five sub-sections. They are:

- A. Use a combination of general and specialist engineering knowledge and understanding to optimise the application of existing and emerging technology.
- B. Apply appropriate theoretical and practical methods to the analysis and solution of engineering problems.
- C. Provide technical and commercial leadership.
- D. Demonstrate effective interpersonal skills.
- E. Demonstrate a personal commitment to professional standards, recognising one's obligations to society, the profession and the environment.

Each of these sections contains individual objectives with a range statement and to assist you we have included generic examples (see CEng competence fact sheet).

Writing your Report

1. Review your career and experience to date.

The interviewers will be interested in what **you** have done, your role and responsibilities in a particular career episode and what you know about the different aspects related to it.

Note for researchers and lecturers:

Where your employment profile makes it difficult to provide evidence of first hand involvement in some aspects of the Competence Criteria, you are encouraged to show understanding and awareness of these issues through reading of journals and trade press, engagement with student projects or through simulations or business games. As an example, objectives listed under management could be contextualised to the supervision and management of student projects and timetabling, student selection and recruitment activities and involvement in quality theory.

2. Compile your report, making reference to all 16 competence criteria listed.

Within each of the sections A – E (see above) you need to be **fully competent** in 60-70% of the competence criteria, and show your awareness and understanding of the remainder.

Begin with a short **introduction** to give a general picture, in a few sentences, of the type of work and professional development you have had to date.

The report should be approximately **4,000 words**.

Check:

- ✓ Have you referred to all 16 competence criteria?

Organisation Chart

Your organisation chart should clearly indicate **your position within your company**. If you are self-employed and do not have an organisation chart, please provide a brief note outlining your level of responsibility and leadership in career episodes undertaken. You may also enclose a previous organisation chart as long as this is clearly indicated.

Check:

- ✓ Is your position in the organisation clearly indicated in the chart?

Development Action Plan

This is a statement of how you intend to continue with your personal and professional development, as it is a requirement that all engineers show commitment to keeping up to date with developments and with maintaining their skills and expertise. You should identify your **short, medium and long term goals** and indicate how you propose to meet them. The document will be approximately one page and should **not** include past CPD records.

Check:

- ✓ Does your Development Action Plan identify future goals and not past achievements?
- ✓ Have you addressed short, medium and long term goals?

Checklist - What to send?

- Application form (signed by your sponsor)
- Qualification certificate(s) (signed by your sponsor)
- Work Experience Listing
- Engineering Practice Report
- Development Action Plan
- CD Rom of your complete submission
- £70 Application Fee, non-returnable, payable to IOR
- £90 Interview Fee, payable to IOR

What happens after you have submitted your application to IOR?

IOR will, on receipt, check that your application is complete and will send you an acknowledgement. Your application will then be forwarded to CIBSE for processing.

Your Interview

For registration, you will be assessed at a Professional Review Interview (PRI), to be held at CIBSE Head Office in Balham, South London. The interview will be conducted by two senior members of CIBSE. (CIBSE may also appoint an IOR observer).

Should you need to cancel a scheduled interview, CIBSE may make an administrative charge.

How to prepare for your Interview

Prepare a **15-20 minute** presentation on a career episode or episodes from your Engineering Practice Report where you have taken a leading role. For example, explain how you :

- established opportunities and limitations
- researched, costed and selected components to meet the client's needs
- found solutions to technical and other problems
- coped with unforeseen complications

This must show how your **personal contribution** helped to achieve a successful outcome.

You may bring to the interview visual aids which are relevant to your presentation: *for example*, photographs and technical drawings. Should you wish to do a Powerpoint presentation, we recommend that you bring your own laptop computer for this purpose.

Extend and develop material presented in your *Engineering Practice Report*, but do not simply repeat it. Your interviewers will already be familiar with what is in your *Report*.

Read relevant trade magazines, journals and on-line materials to ensure you are up to date with recent issues and developments within the profession. Ensure that you are familiar with relevant Professional Codes of Conduct.

Look again at the *Chartered Engineer Competence Criteria*, as these are the criteria your interviewers will be using when assessing your competence at the interview.

As well as discussing your areas of special expertise, the interviewers will expect you to show some awareness of areas of RAC engineering where you have not had direct experience.

The Interview

Following assessment of your application, you will be informed by letter of the date, time and location of your interview.

Remember to bring with you to the interview **photographic ID**. This will be checked at the start of the interview.

The interviewers will start by asking you to make your presentation. They will question you on the contents of your presentation during or after, whatever you prefer. Their questioning will be based on the Competence Criteria and they will need to ensure that all sections are covered during the course of the interview.

The interview will last for approximately one hour. You should approach it with confidence, as it is intended to give you the opportunity to do the following two things:

- to discuss the achievements you are most proud of
- to explain how you intend to contribute to the profession in the future through the IOR

The Decision

The interviewers will make their recommendation on your application to the **CIBSE Registration Panel**. The Panel will take into account both your **written documentation** and the **interviewers' recommendation**. You will receive CIBSE's decision shortly after the Panel meeting. Successful applicants will automatically become Partner Members of CIBSE, at no extra charge.

Remember: The interview is your opportunity to present your achievements as a professional engineer.

IOR and CIBSE want you to succeed!