Professional Registration
Applicant Guidance Notes
(CEng, IEng and EngTech)

February 2023

1. Introduction

CIHT is licensed by the Engineering Council to assess its members against the standards for the following levels of professional registration:

- **Chartered Engineer (CEng)** – to demonstrate the CEng standard, applicants must be able to develop solutions to engineering problems using new or existing technologies, through innovation, creativity and change. They may be accountable for complex systems with significant levels of risk.

- **Incorporated Engineer (IEng)** – to demonstrate the IEng standard, applicants must be able to maintain and manage the application of current and developing technology, and may undertake engineering design, development, manufacture, construction and operation.

- **Engineering Technician (EngTech) –** to demonstrate the EngTech standard, applicants must be able to apply proven techniques and procedures to solve practical engineering problems and safe systems of work.

2. UK-SPEC, 4th Edition: Competence and Commitment

The competency and commitment requirements for CEng, IEng and EngTech professional registration are set out in *pages 19-45* of the UK Standard for Professional Engineering Competence and Commitment published by the Engineering Council (UK-SPEC, 4th edition).

Each registration title requires demonstration of competence in five broad areas:

Competence A	Knowledge and understanding
Competence B	Design, development and solving engineering problems
Competence C	Responsibility, management and leadership
Competence D	Communication and interpersonal skills
Competence E	Personal and professional commitment

The UK-SPEC (4th edition) defines **competence** as 'a professional's ability to carry out engineering tasks successfully and safely within their field of practice'. Registered engineering professionals are also required to demonstrate a **personal and professional commitment** to society, to the environment and to their profession. Please refer to *page 9* of UK-SPEC (4th edition) for further information.

Evidence of competence presented by individual applicants will vary according to their job role and work experience. The UK-SPEC (4th edition) provides examples of evidence to help applicants identify activities that might demonstrate the required competence and commitment for each of the competence descriptors. These lists are not exhaustive and other types of evidence might be valid. As an applicant, you will need to demonstrate an understanding of, and familiarity with, the key aspects of competence in all areas as a minimum requirement while demonstrating higher levels of competence in those areas which are critical to your role. Overall, you must demonstrate an appropriate balance of competences to perform your role effectively at the level being sought.

You should consider whether the evidence in your application needs to be adapted for security or commercial sensitivity reasons. If this is the case, you may wish to:

- Make your report non-site specific – for example do not state that the facility was on a particular site or that the asset serves a critical function to the site or country or is/was vulnerable to various threats;
- Omit building numbers or names – e.g. it is sufficient to say 'nuclear facility' or 'nuclear store';
- Remove site and building names from drawings or snapshots of models;
- Exclude photographs or other images which reveal the location of buildings and facilities;
- Avoid stating, or showing in drawings or extracts from models, technical details (such as wall thickness) which may reveal security-sensitive information If you work on a security-sensitive

project, we recommend that your organisation's information security manager (and also the asset owner's/client's) reads your application and approves the content before submission;

- Familiarise yourself with the Engineering Council guidance note on security.
- Inform CIHT if you believe your reviewers will need security clearance.

3. CIHT Specialisms

To help you relate what you do at work to the generic standards in UK-SPEC (4th edition), CIHT has contextualised the standards for the following Highways and Transportation specialisms:

1) Transport planning
2) Materials and geotechnics
3) Traffic management, safety and systems engineering
4) Infrastructure planning, design, construction and/or maintenance
5) Transport related structural engineering
6) Academic research, teaching, or training
7) Research and development in highways and transportation
8) Intelligent transport systems

You will be asked to indicate your specialism when making your application (*you may choose more than one*). At least one of your reviewers will be an expert in your declared specialism/s, so it is important that you choose carefully.

If you are applying for **CEng or IEng**, please refer to the CIHT CEng Specialisms or the IEng Specialisms so that you can check your engineering competence against the criteria for your specialism(s) and see which one/s is/are relevant to your career. As with the examples of evidence laid out in UK-SPEC (4th edition), you should be able to demonstrate an understanding of, and familiarity with, the key aspects of competence in all areas as a minimum requirement while demonstrating higher levels of competence in those areas which are critical to your role. If you are applying for **EngTech**, you should refer to the EngTech Supplementary Guidance document which contains examples of evidence to help you complete your application. Experience trackers are available to download from our website to help you to prepare.

If your specialism is *'Academic research, teaching, or training,'* you should refer to the 'Supplementary Guidance for Academics' document for further support.

4. Requirements for professional registration

4a) Knowledge

The Engineering Council maintains a Recognised Course Search database. You can use this database to check whether your qualifications are accredited. CIHT will confirm this when you submit an online initial assessment *(see Section 5 below).*

The Engineering Council is the UK signatory to three international Accords; the Washington Accord (for CEng), the Sydney Accord (for IEng), and the Dublin Accord (for EngTech), which recognise professional engineering education programmes accredited by signatories in different countries These recognition agreements are considered by CIHT when carrying out initial assessments.

The underpinning knowledge and understanding benchmarks set by the Engineering Council for each section of the Register are listed below:

Engineering Technician (EngTech) One of the following:	Incorporated Engineer (IEng) One of the following:	Chartered Engineer (CEng) One of the following:
• Successful completion of an apprenticeship or other work-based learning programme approved by a Licensee • Alongside appropriate working experience, holding a qualification, approved by a Licensee, in engineering or construction set at either: ▸ level 3 (or above) in the Regulated Qualifications Framework or National Qualifications Framework for England and Northern Ireland ▸ level 6 (or above) in the Scottish Credit and Qualifications Framework ▸ level 3 (or above) in the Credit and Qualifications Framework for Wales • Alongside appropriate working experience, holding equivalent qualifications or apprenticeships accredited or approved by a Licensee, or at an equivalent level in a relevant national or international qualifications framework†	• An accredited Bachelors or honours degree in engineering or technology • An accredited Higher National Certificate (HNC) or Higher National Diploma (HND) in engineering or technology started before September 1999 • An HNC or HND started after September 1999 (but before September 2010 in the case of the HNC) or a Foundation Degree in engineering or technology, plus appropriate further learning to degree level • A National Vocational Qualification (NVQ) or Scottish Vocational Qualification (SVQ) at level 4 that has been approved by a Licensee, plus appropriate further learning to degree level* • Equivalent qualifications or apprenticeships accredited or approved by a Licensee, or at an equivalent level in a relevant national or international qualifications framework†	• An accredited Bachelors degree with honours in engineering or technology, plus either an appropriate Masters degree or engineering doctorate accredited by a Licensee, or appropriate further learning to Masters level* • An accredited integrated MEng degree • An accredited Bachelors degree with honours in engineering or technology started before September 1999 • Equivalent qualifications or apprenticeships accredited or approved by a Licensee, or at an equivalent level in a relevant national or international qualifications framework†

* See: www.engc.org.uk/ukspec4th for qualification levels and HE reference points. † For example, UNESCO's International Standard Classification of Education (ISCED) framework.

Once you have demonstrated that you have the required underpinning knowledge and understanding, you may proceed to the Professional Review stage *(see Section 6 below).*

4b) Experience

CIHT applicants must be able to demonstrate practical experience in a highways and transportation context. This experience is assessed against the Standards listed in pages 19–45 of UK-SPEC 4th edition. There is no prescribed time period or minimum age requirement for the development of competence and commitment. The length of time it takes to achieve the required level of competency depends on current and prior experience, as well as personal circumstances such as career breaks or part time working. As a guide, applicants usually have at least the following number of years of relevant experience before applying:

- CEng – 5 years
- IEng – 5 years
- EngTech – 3 years

4c) Professional Commitment

Applicants are required to demonstrate a personal and professional commitment to society, to the environment and to their profession. As part of demonstrating overall competence, it is mandatory to show that you have adopted a set of values and conduct that maintains and enhances the reputation of the profession. This includes:

- Maintaining public and employee safety
- Undertaking work in a way that protects the environment and contributes to sustainable development
- Complying with codes of conduct, codes of practice and the legal and regulatory framework
- Managing, applying and improving safe systems of work
- Carrying out the CPD necessary to maintain and enhance competence in relation to duties and responsibilities
- Exercising responsibilities in an ethical manner

- Recognising inclusivity and diversity
- Adopting a security-minded approach
- Actively participating within the profession

The Engineering Council has published a CPD Code for Registrants, as well as guidance on risk, sustainability, whistleblowing and security and professional and ethical behaviour (see *pages 46 and 47 of UK-SPEC 4th edition*). CIHT members are required to demonstrate an awareness of CIHT's Code of Professional Conduct, which reflects the values and professional principles listed above. CIHT also provides relevant modules on these areas through CIHTLearn.

4d) Continuing Professional Development (CPD)

Maintaining a CPD record helps you track, document then reflect on the skills, knowledge and experience that you have gained from both formal and informal learning. CIHT's guidance on CPD can be found here.

CIHT applicants for CEng, IEng professional registration are required to submit a CPD record that shows a minimum of 25 hours of CPD per year for each of the two years prior to making an application. **EngTech** applicants only need to demonstrate a minimum of 25 hours for the previous 12 months. CPD is essential for maintaining and enhancing the required competence and commitment for professional registration, as well as for developing new competences.

CPD has several purposes, as outlined in UK-SPEC (4th edition).
- To assure continuing competence in a current job
- To prepare for a different role
- To follow a longer-term career development plan
- To enhance professionalism in a wider context than a specific job role.

We recommend you use CIHT Learn to record your CPD activities. You can download your CPD record as an Excel document from CIHTLearn which you will need to convert to a portrait PDF document for inclusion in your Portfolio of Evidence.

CIHT do not prescribe the types of activity that count towards your CPD hours because you are the best person to choose the right CPD activity for you; however, if you would like some examples of CPD activities, please find more information here.

5. Initial Assessment

Submitting an online initial assessment is the first stage of the CIHT application process for CEng, IEng or EngTech registration.

You will be asked to submit your:

- CV
- Details related to the qualifications you hold (level, subject, name of institution, start/end dates)
- Copies of academic certificates
- Evidence of your academic qualifications being assessed for the level of registration you are seeking by another professional engineering institution.

The initial assessment is free of charge. Applicants for professional registration must be CIHT members at Member grade (MCIHT) before making their application. Find out more about becoming a CIHT Member here.

CIHT has agreements with the Institute of Asphalt Technology (IAT) and the Institute of Quarrying (IQ) to assess their members for professional registration with the Engineering Council. If you are an IAT or IQ member, please complete an online initial assessment and contact your membership body to register your interest.

The initial assessment outcome will confirm whether you have achieved the underpinning knowledge benchmark to satisfy the Engineering Council requirements for the level of registration you are seeking.

Applicants who have a qualification, or qualifications, that satisfy the benchmark can proceed directly to the Professional Review via what is known as the Standard Route.

Applicants whose qualifications do not satisfy the underpinning knowledge benchmark can demonstrate their knowledge through other options which are explained in the initial assessment outcome e-mail. Progression via this option is known as the **Individual Route** (see Section 7 below).

6. Professional Review

The Professional Review consists of

- The submission of a Portfolio of Evidence
- A pre-interview assessment to determine your eligibility to proceed to a Professional Review interview
- Attendance at a Professional Review interview, if eligible.

Your Portfolio of Evidence is assessed in conjunction with your interview performance to determine whether you meet the required level of competence for professional registration.

a) Portfolio of Evidence

Our online application form, accessed via our website, allows you to track your progress and build up your Portfolio of Evidence before you are finally ready to submit. You must upload evidence of your eligibility to apply for Professional Review in order to unlock the full online application form e.g. initial assessment outcome e-mail/Technical Report outcome letter. Guidance is provided on each page of the application form to help you complete the relevant sections. You do not have to complete your Portfolio of Evidence in a single session and you can save your progress and return to it at any time.

Once you have completed all sections of the online application form, you will be able to preview a Word copy of your submission. It is important that you check the contents of your submission carefully and make any adjustments via the online application itself. You can preview your submission as many times as you wish to ensure that you are satisfied with its presentation before submitting. You should ensure that all appendices and other uploaded documents have a clear resolution before submitting. **You must also show a draft copy of your submission to both of your sponsors before submitting.**

When you are ready to submit your Portfolio of Evidence, you will be able to pay the Professional Review assessment fee online and download a PDF copy of your submission.

The Education Team will conduct an administrative check to ensure that the application is complete and will inform you if any additional information is required.

b) Pre-Interview Assessment

Following the administrative check, your submission will be sent to two reviewers (at least one of your reviewers will share your declared specialism/s) who will carry out a pre-interview assessment to ensure that your submission is of a satisfactory quality to proceed to an interview. If you are not eligible to proceed to an interview, you will be provided with feedback to explain the reasons for this and refunded the cost of your assessment fee, minus an administrative fee.

c) Professional Review Interview

Most interviews are held remotely via Microsoft Teams and you must ensure that you have access to a location with a stable Internet connection. You may also be able to request a face-to-face interview, by contacting the Education Team.

Interviews for **CEng** and **IEng** last approximately 75 minutes and start with a 15-minute presentation based on the 'Presentation Outline' contained within your Portfolio of Evidence. A copy of your presentation slides must be sent to the Education Team one week in advance of the interview.

Interviews for **EngTech** last approximately 45 minutes and start with a 5 to 10-minute presentation about your career to date.

Your interview will be conducted by two CIHT members who are professionally qualified practitioners, one of whom will usually share the specialism(s) declared on your application form. Your reviewers will structure the interview discussion to establish whether you have met the UK-SPEC requirements for the level being sought.

d) Professional Review results

Following each round of Professional Review interviews, CIHT's Engineering Professional Standards Panel meets to consider reviewer recommendations and confirm results. You will receive confirmation of your result via e-mail within 6 weeks of the date of your review.

If you are successful in your review, you will be requested to pay an initial registration fee and CIHT will send your registration details across to the Engineering Council for inclusion on the Register. Further feedback from your review will be available upon request. Your certificate and welcome pack will then be sent to you directly by the Engineering Council. If you are unsuccessful in your review, you will receive feedback to help you address the shortfalls identified by the reviewers. A copy of the unsuccessful outcome letter is also sent to your sponsors for their information.

7. The Individual Route

The purpose of the Individual Route is to demonstrate that you have acquired the equivalent level of technical knowledge and understanding of scientific and engineering principles to **underpin** Competences A and B of UK-SPEC 4th edition, as further described in the Accreditation of Higher Education Programmes 4th edition (AHEP) to the same level as those whose qualifications satisfy the Engineering Council's underpinning knowledge and understanding benchmark i.e. an integrated Master's degree level, if applying for CEng.

The Individual Route may be completed by submission of:

- A Further Learning Report (*See 7a) below*)
- A Technical Report (*See 7b) below*)
- A qualification gained through further formal study acceptable to CIHT
- The CIHT experiential route (*See 7c) below*)

The below guidance will focus on the Technical Report, Further Learning Report and Experiential route options.

Technical Reports, Further Learning Reports and Experiential Reports are assessed against the following five areas of learning, as outlined in AHEP, 4th edition.

1) Science and mathematics
2) Engineering analysis
3) Design and innovation
4) The Engineer and society
5) Engineering practice

CEng applicants should refer to the M1- M18 learning outcomes on pages 32-37 of AHEP, 4th edition for further guidance. IEng applicants should refer to the B1- B18 learning outcomes on pages 27-31 of AHEP, 4th edition for further guidance.

a) Further Learning Report (FLR)

The Further Learning Report (FLR) option may be available to you if you hold an academic qualification which is equivalent to the academic level required by the Engineering Council e.g. Masters-level for CEng) but has not been accredited for the purposes of professional registration.

As part of the FLR, you will need to complete the **FLR Table** which lists the relevant learning outcomes which your evidence must be aligned to. You will need to identify, with supporting evidence as an Appendix, how your learning meets each of the learning outcomes listed.

A FLR application should consist of:

- A completed FLR application form, signed off by a sponsor who is an Engineering Council registrant at the level being sought.
- A copy of the initial assessment e-mail from CIHT stating that a FLR may be submitted
- A copy of your CV
- Authenticated copies of your qualifications (including English translations where necessary)
- A completed FLR Table
- Your CPD record demonstrating a minimum of 25 hours per year for the two years prior to the date of the FLR submission.
- Appendix of supporting evidence.

Further Learning Reports are reviewed by two assessors and applicants are usually informed of their outcome within 6 weeks of the date of submission. There is usually no requirement for an interview.

Upon successful completion of the FLR, you will be eligible to apply for Professional Review in the same format as a Standard Route applicant *(See section 6 above).*

b) Technical Report

A Technical Report option may be available to you if you do not hold accredited qualifications, but have relevant work experience to demonstrate your knowledge and understanding of engineering principles.

The Technical Report is a three-stage process.

Stage 1 – Submit a synopsis

The synopsis is an outline of what you propose to discuss in your full Technical Report (Stage 2) and may be submitted at any time throughout the year. To help structure your synopsis to the relevant AHEP learning outcomes, you will need to complete the Synopsis Evidence Forms which are available to download from our website. The Synopsis Evidence Forms must demonstrate in no more than 1500 words how you propose to fulfil each of the AHEP learning outcomes within your full Technical Report.

The following documentation should be included in your Stage 1 application and sent to education@ciht.org.uk as one comprehensive PDF file.

- A completed Stage 1 Technical Report application form
- A copy of the initial assessment e-mail from CIHT
- A 1500-word synopsis of the Technical Report which you plan to submit
- A copy of your CV. This should cover your relevant academic qualifications as well as your work experience to date.
- CPD record (a minimum of 25 hours per year for **each** of the two years prior to the date of your application) e.g. if you are submitting in 2024, you will need to demonstrate a minimum of 25 hours of CPD for the calendar years of 2022 and 2023. Please also include any CPD undertaken for the year in which you are applying, for information purposes.

You are encouraged to seek the support of a **mentor** to provide you with advice and guidance in preparation for your Technical Report application.

Your Stage 1 submission will need to be signed off by a **sponsor** (*who may also be your mentor*) to verify that the content of your application is, to the best of their knowledge, a true and accurate reflection of your professional knowledge and experience. Your sponsor needs to be an active Engineering Council registrant at an equivalent or higher level of registration to the one being sought.

Your assessors may approve your synopsis (with or without feedback). If they do not approve your synopsis, you will be provided with feedback which explains why you are unable to proceed to Stage 2. You will then have the option of re-submitting at any time.

<u>Stage 2 – Submit the Technical Report</u>

If your Technical Report synopsis is approved, you will then have 12 months to submit your full Technical Report for assessment *(see [website](#) for submission dates).* Your Stage 2 application should not exceed 8,000 words and will be assessed against the AHEP requirements.

A Stage 2 Technical Report application consists of:

- A completed Stage 2 Technical Report Application Form signed off by a sponsor who is an Engineering Council registrant at the level being sought, or above.
- A copy of your CV
- An updated CPD record, demonstrating a minimum of 25 hours per year for <u>each</u> of the previous two years. Please also include any CPD undertaken for the year in which you are applying, for information purposes.

Your Technical Report is structured against the AHEP learning outcomes. For each area of AHEP, you need to provide examples of your engineering knowledge and experience, including reflecting on any lessons learned and highlighting any aspects you would now approach differently.

Appendices: The report should include evidence such as reference to designs, drawings, calculations, and any other types of activity or analysis that you have undertaken. Some of this evidence might be contained in appendices and each appendix should be clearly referenced in text in the body of the report.

Bibliography/References: Design data such as guidelines and standards as well as any other relevant documentation which is generally available should be cited and the full bibliography provided in a reference list at the end of the report.

The Technical Report Stage 2 application should be sent electronically in one single comprehensive PDF file to education@ciht.org.uk by the submission deadline published on the CIHT website.

You should avoid simply writing about a project that you have worked on. The formation of an engineer is usually through a variety of projects and experiences and the assessors will expect to see this variety reflected in your Technical Report.

If your assessors are satisfied with the content of your report, you will be invited to attend a Technical Report interview. If your report is considered to not yet meet the requirements to proceed to a Technical Report interview, you will be advised to re-submit this in accordance with the feedback given.

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TECHNICAL REPORT TIPS

- ➢ You should make sure that your Technical Report remains focussed on your approved synopsis.

- ➢ You should aim to write in the first person e.g. 'I decided…' and emphasise your own technical knowledge and the basis on which you made design and other decisions. Phrases such as 'we decided…' should be avoided, but where a decision was group based, you should clearly identify your contributions to the group decision.

- ➢ Any illustrative diagrams, tables, drawings, calculations and statistics should be included in an Appendix to the main report to support the development of a point. You must be able to demonstrate your understanding and interpretation of them.

- ➢ All appendices should be referenced at the appropriate place in the text within the main report. The appendices should be ordered according to the order in which they are introduced in the text. Each appendix should be clearly and separately titled (e.g. "Appendix A – highway pavement calculations"). Appendices should only include essential additional documentation which provide evidence to support an assertion you are making in the report. Submissions with an excessive bulk of appendices should be avoided and it is recommended that they should ideally consist of no more than **50 sides of A4.**

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Stage 3 – Attend a Technical Report Interview

If your Technical Report is satisfactory at the pre-interview assessment stage, you will be invited to attend a Technical Report interview which normally lasts for approximately one hour. At the start of the interview, you will be invited to speak about your career to date for around 5 minutes, highlighting your significant **engineering** achievements. Your interview will be a structured discussion between you and two assessors, who will expect you to demonstrate your range and depth of knowledge and understanding of engineering principles, based on your Technical Report.

Upon successful completion of Stage 3, you will be eligible to apply for Professional Review in the same format as a Standard Route applicant *(see Section 6 above).*

c) **Experiential route**
If you have been told that you are eligible to apply through the experiential route, please contact education@ciht.org.uk.

8. **Making a Professional Review application**

All Professional Review applications should be submitted through the CIHT website by the submission deadline. The links to the relevant online application pages can be found below.

Chartered Engineer
Incorporated Engineer
Engineering Technician

The Education Team will conduct an administrative check to ensure that all your documentation is present and will inform you if any additional information is required.

Once the administrative check has been completed, you will be provided with information on the next steps.

9. Plagiarism and uses of outside sources of information

Plagiarism is taken seriously by CIHT and you should ensure you are not presenting the work of others as your own.

Whilst you may refer to your Portfolio of Evidence during your Professional Review interview you should not be using outside sources of information (e.g. search engines, other people) to help you answer questions during your interview. If your reviewers have concerns that you may be accessing outside sources of information they will raise this with you and report it back to the CIHT.

10. Submission Deadlines and Interview Dates

Submission deadlines and interview dates for Technical Report, Experiential Route and Professional Review applications can be found on the [CIHT website](#)

Applications for initial assessment and Further Learning Report submissions can be made at any time.

11. Assessment Fees

Please refer to the CIHT website for further information regarding fees. Fees for Professional Review will be made as part of your online submission through the MyCIHT website. All other fees can be paid online via your MyCIHT account or by telephone.

12. Results

Results are issued by e-mail approximately 6 weeks after the submission deadline and/or the interview and are sent to the e-mail address provided in your application form. Please remember to contact the Education Team at education@ciht.org.uk if you need to update your contact details.

13. Re-sits

If you are unsuccessful in your application, you will be required to re-submit the relevant documentation and follow the standard application process, including payment of the appropriate assessment fee.

14. Appeals

Applicants have the right to appeal their result if they feel there was an error in the administration process. Appeals must be received in writing within four weeks of receiving the result and should be sent via e-mail to education@ciht.org.uk

15. Maintenance of registration

To maintain your CEng, IEng or EngTech registration, you will need to remain a CIHT membership and pay an annual registration fee to the Engineering Council through CIHT. The initial registration and annual registration fees can be found on the Engineering Council's website [here](#). You will also be expected to continue undertaking and recording your CPD as this will be periodically audited.

16. Reasonable adjustments

In line with the Disability Discrimination Act 2005, the Institution will be proactive in making whatever "reasonable adjustments" are required for applicants who inform us that they have a disability or sensory impairment. Please note that it is your responsibility to advise us if there are any specific requirements or issues to be taken into account prior to, your interview. If there is certified documentation or a statement giving details of these, this may be particularly helpful in defining the adjustments to be made. Please contact education@ciht.org.uk to discuss your requirements.

17. Mentoring

We strongly recommend that you have a mentor to help you to prepare for professional review. You may have a mentor in your organisation or you can contact CIHT to help you to find a mentor. CIHT has resources to help your mentor to support you including a mentoring guide

18. Further information

If you have any queries about applying for engineering professional registration through CIHT, contact the Education team (education@ciht.org.uk)