Technician Member EngTech (IChemE) guidance for candidates

Thank you for your interest in becoming registered with IChemE as an Engineering Technician (EngTech). This guidance is to provide you some background on what EngTech is all about, and how to go about submitting your application. This document makes reference to Engineering Council's UK-SPEC which is the UK standard for professional engineering competence. Please remember that we are available to help – you can reach us at members@icheme.org.

Who should apply for EngTech?

Are you able to:

- apply safe systems of work?
- demonstrate contribution to either the design, development, manufacture, (de)commissioning, operation or maintenance of products, equipment, processes or services?

Do you:

- have supervisory or technical responsibility?
- have effective interpersonal skills in communicating technical matters?
- show commitment to professional engineering values?

Is your job title similar to one of these?

- process operator
- instrument technician
- pilot/research plant operator
- lab technician
- maintenance engineer
- design technician

If yes, then EngTech may be for you!

Find the right pathway

You do not necessarily need any formal qualifications to become registered as EngTech – you may be able to demonstrate that you have acquired the level of knowledge needed through on-the-job learning. When you begin your application, you’ll need to select the right pathway; if you’re unsure which one fits your circumstances, then please contact us at members@icheme.org.

Pathways 1 and 2
For candidates that have completed an IChemE approved technician training programme; currently these two pathways are not active.

Pathway 3
For candidates that have a qualification approved by IChemE at level 3 or above, or a qualification recognised by the
Dublin Accord.

**Check your qualification** - If you have a qualification at level 3 check if it’s approved by IChemE using the [Engineering Council’s Database of Technician Qualifications](http://www.cheme.org.uk/technician_qualifications). If you have a qualification higher than level 3, use [Engineering Council’s Accredited Course Search](http://www.cheme.org.uk/). If your qualification doesn’t appear on the above database, it may be recognised by the Dublin Accord - visit [www.ieagreements.org/accords/dublin/signatories](http://www.ieagreements.org/accords/dublin/signatories) to see if your qualification is covered by any of the signatories.

**Pathway 4**

For candidates that have not completed an IChemE approved training programme, and do not have a qualification at level 3 or above that is accredited by IChemE or recognised by the Dublin Accord. Candidates are likely to have acquired their knowledge and competency through experience and on-the-job training.

**What do I need to do?**

Once you’ve identified your pathway you’ll need to provide the following when you apply online:

- a completed EngTech Competence & Commitment (C&C) report
- CV
- photo ID
- relevant qualifications

You must also provide details of two supporters for your application who can:

- verify the contents of your Competence and Commitment report; it is therefore important that they know your work. They will tick the elements of your report that they are verifying.
- confirm that you are of the required level to become registered as an Engineering Technician

One of your supporters should be an engineer professionally-registered with any [Engineering Council-Listed institution](http://www.cheme.org.uk/), a signatory of the [Washington Accord](http://www.cheme.org.uk/) or of [FEANI](http://www.cheme.org.uk/). The other should be someone who knows your work very well, usually your line manager. Of course, they may also be professionally registered but this is not necessary. A third can be added if they are verifying certain aspects of your report.

Once you have completed your C&C report - print it off, have your supporters sign and verify the appropriate sections, then scan the signed/validated report and upload with your application at [www.cheme.org.uk/joinnow](http://www.cheme.org.uk/joinnow).

If you have any difficulty finding a supporter, we suggest you contact your [local member group or special interest group](http://www.cheme.org.uk/), HR/personnel department within your company, or perhaps your (former) tutor. If you have exhausted these options, please contact [members@cheme.org](mailto:members@cheme.org).

**Competence and Commitment (C&C) Report**

The EngTech Competence and Commitment Report gives you the opportunity to tell us about the way you work, and the education and training you have received. The key purpose of this report is for you to explain how the experience you have gained has made you (more) competent. We have structured it in a way to help you demonstrate your abilities against the five areas of competence required by IChemE for EngTech registration.
Every candidate must complete a Competence and Commitment report. You should write around 1500 words to demonstrate your technical knowledge and practical skills. You must show personal responsibility, prove your communication skills and demonstrate commitment to the profession.

Your report will be peer-reviewed by IChemE Members who will be looking for clear evidence that you have the know-how to do the job, are able to go beyond the basic requirements and use your initiative and experience to find solutions and make improvements. IChemE uses your report to assess your eligibility to register as a qualified EngTech with Engineering Council.

Registered Engineering Technicians must be competent throughout their working life, by virtue of their training and experience. This includes education at college, on-the-job know-how and skills, courses run by your employer and activities you have arranged for yourself to improve your knowledge and skills. The last two are usually called Continuing Professional Development (CPD) which are covered in Section E but can be included in the other sections if it illustrates your case.

Experience can be gained day-to-day, through special projects and sometimes unusual situations such as recovering from plant breakdown. If you’ve done it and learned from it, it’s experience. We therefore need to see evidence from you for each of the competences A–E.

What is competence?

- competence is the ability to carry out a task to an effective standard
- competence requires the right level of knowledge, understanding and skill, and a professional attitude
- competence is developed by a combination of formal and informal learning, and training and experience, generally known as initial professional development (IPD).

What is commitment?

- Engineering Technicians demonstrate a personal and professional commitment to society, their profession and the environment
- they show that they have adopted a set of values and behaviours that will maintain and enhance the reputation of the profession.

Preparation

- record examples of your day-to-day work over a period of time, updating regularly
- read the example for each section – it’s there to help you. Make sure all answers are based on your own experience
- ensure that you write in the first person (‘me, I’...) as the assessor needs to understand your contribution
- keep answers short and concise – you don’t need to write an essay for each question— and use plain English
- include technical but not sensitive or confidential detail.

Each question on the C&C report has guidance built in; in addition, please refer to the guidance below.
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<th>Competency</th>
<th>Guidance</th>
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<td><strong>A. Evidence that you have the ability to use process related knowledge and understanding to apply technical and practical skills.</strong></td>
<td>In Section A, draw from your direct experience to give evidence that you have the technical knowhow to do the job and demonstrate that you use your initiative and experience to solve a process problem or improve a process.</td>
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<td><strong>A1. Ability to review, select and use appropriate technical techniques, procedures and methods to undertake (process or chemical engineering) tasks.</strong></td>
<td>For example, you should describe an instance where you have used your technical skills to select an approach that solved a process problem or optimised a process, and explain why the approach was technically appropriate. Do explain what went well, the choices you made and the outcome. If it didn’t quite work, do explain why. What technique, procedure or method you improved upon and explain why.</td>
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<td><strong>A2. Ability to use appropriate scientific, technical and chemical or process engineering principles.</strong></td>
<td>You can provide a technical explanation of how a piece of process equipment, process system or mechanism encountered in your job works. Or you can describe how you have learnt the principles relating to an area of your work.</td>
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<td><strong>B. Evidence that you’re able to contribute to one or more of the following: (de)commissioning, design/development, modification/refurbishment, manufacture, construction, operation/maintenance, quality assurance, cleanout, environmental/waste management of processes, systems, equipment or devices.</strong></td>
<td>Do this by showing that you contribute to one or more of these activities.</td>
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<td><strong>B1. Ability to identify problems and apply diagnostic methods to identify causes and achieve a technical solution.</strong></td>
<td>You should provide an example of how you have identified a problem and used measurement, monitoring and assessment to identify the source of the problem and provide a solution.</td>
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| **B2. Ability to identify, organise and use resources effectively to complete tasks, with consideration for cost, quality, safety and environmental impact.** | Provide an example of how you have used process data, process plant, materials or people to complete work tasks/projects, such as how you make decisions about:  
  - what information, material, component, people or plant to use  
  - or how to introduce a new method of working  
  - or what precautions you took  

  or, describe how you have introduced a new method of working to complete a task/project better. |
<p>| <strong>C. Evidence of ability to accept and exercise personal responsibility.</strong> | In Section C, describe experiences or instances where you have had to accept personal responsibility for seeing a work process or project through to completion within agreed targets. |</p>
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<td>C1. Ability to work reliably and effectively without close supervision.</td>
<td>Give an example that shows how you personally planned and carried out allocated tasks, with reference to the appropriate standards.</td>
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<td>C2. Ability to accept responsibility for your work and that of others.</td>
<td>You should give examples of responsible working practice through measures such as checking the standard of your completed work or that of others.</td>
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<td>C3. Ability to accept, allocate and supervise technical and other tasks.</td>
<td>Give an example of having identified the content of a task, allocated resources and supervised the execution of the task to a satisfactory completion.</td>
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<td>D. Evidence of use of effective communication and interpersonal skills.</td>
<td>In Section D you need to show you can contribute to discussions; make a presentation; read instructions or standards; assemble different sources of information and make sense of them; write different types of documents.</td>
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<td>D1. Ability to communicate technical ideas, information and plans by means of written, electronic and oral presentation.</td>
<td>Provide some examples of your participation in meetings and/or presentations; completion of reports; and putting together and delivering instructions to groups or individuals.</td>
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<td>D2. Ability to work effectively with colleagues, clients, suppliers or the public, and showed awareness of the needs and concerns of others, especially where related to diversity and equality.</td>
<td>Describe a situation where this has occurred and your role at the time. Describe your role as part of a team. Describe a situation where you put your awareness into practice. For example, you might be introducing trainees to equipment or systems, or briefing the management on improvements or outcomes of trials.</td>
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<td>E. Evidence of your personal commitment to appropriate codes of professional conduct; recognising obligations to society, the profession and the environment.</td>
<td>In Section E we are asking you to demonstrate your commitment to become part of the profession and uphold the standards to which IChemE members subscribe.</td>
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<td>E1. Commitment to uphold professional Code of Conduct.</td>
<td>You need to confirm that you have read, understood and will follow IChemE’s Code of Conduct (<a href="http://www.icheme.org/codeofconduct">www.icheme.org/codeofconduct</a>). If any point is unclear, please ask a senior engineer in your organisation or contact IChemE membership.</td>
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<td>E2. Ability to manage and apply safe systems of work.</td>
<td>Provide a quality example of how you apply current safety requirements, such as risk assessment and other examples of good practice you adopt in your work. Please also briefly describe evidence of completed formal safety instruction or safety training relating to your work.</td>
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<td>E3. Ability to undertake technical and process engineering in a sustainable way and demonstrate awareness of sustainable development.</td>
<td>Provide an example of a methodical assessment of risk you’ve made on a specific project(s) and the actions taken to minimise risk to health, safety, society or the environment.</td>
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### E4. Commitment to your Continuing Professional Development (CPD).

(i) CPD in the past 2 years

(ii) CPD in the future

Show how you actively seek to identify and address training needs in your current employment and future career development plans. This means demonstrating that you have actively sought to keep yourself up to date, perhaps by studying new standards or techniques, or made use of magazines, lectures organised by professional engineering institutions, and other opportunities to network to keep abreast of change. Describe the method used to record and evaluate your development activities.

List a few examples of what you have done over the last two years and describe how you and your role have benefitted.

Also list the training and experience you may need for the future and how you’re going to get it.

### E5. Ability to conduct duties and responsibilities in an ethical manner.

Give an example of where you have applied/upheld ethical principles as defined by your organisation or company, which may be in its company or brand values.

This can be honesty and integrity such as maintaining data confidentiality.

### Interview stage

Once your Competence and Commitment report has been assessed, you will be informed if an interview is necessary. Interviews are not usually required but may be organised at the assessors’ request. Trained IChemE members conduct the interviews, who will contact you directly to arrange a suitable date, time and venue/media.

If an interview is required, you will be provided with additional guidance.

More information can be found at [www.iche.me/technician](http://www.iche.me/technician). Alternatively, please contact members@iche.me with any questions.