

# Let's get you Chartered

**Guide to Assessments**

December 2022

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# Stand out from the competition as a Chartered Professional Engineer

Registering as a Chartered Professional Engineer (CPEng) is the highest available technical credential for engineers. It is an indication of an engineer's ability to deal with complex engineering problems requiring expert technical knowledge. CPEng is a competency mark that is both nationally and internationally recognised and signifies a defined level of skill and professionalism.

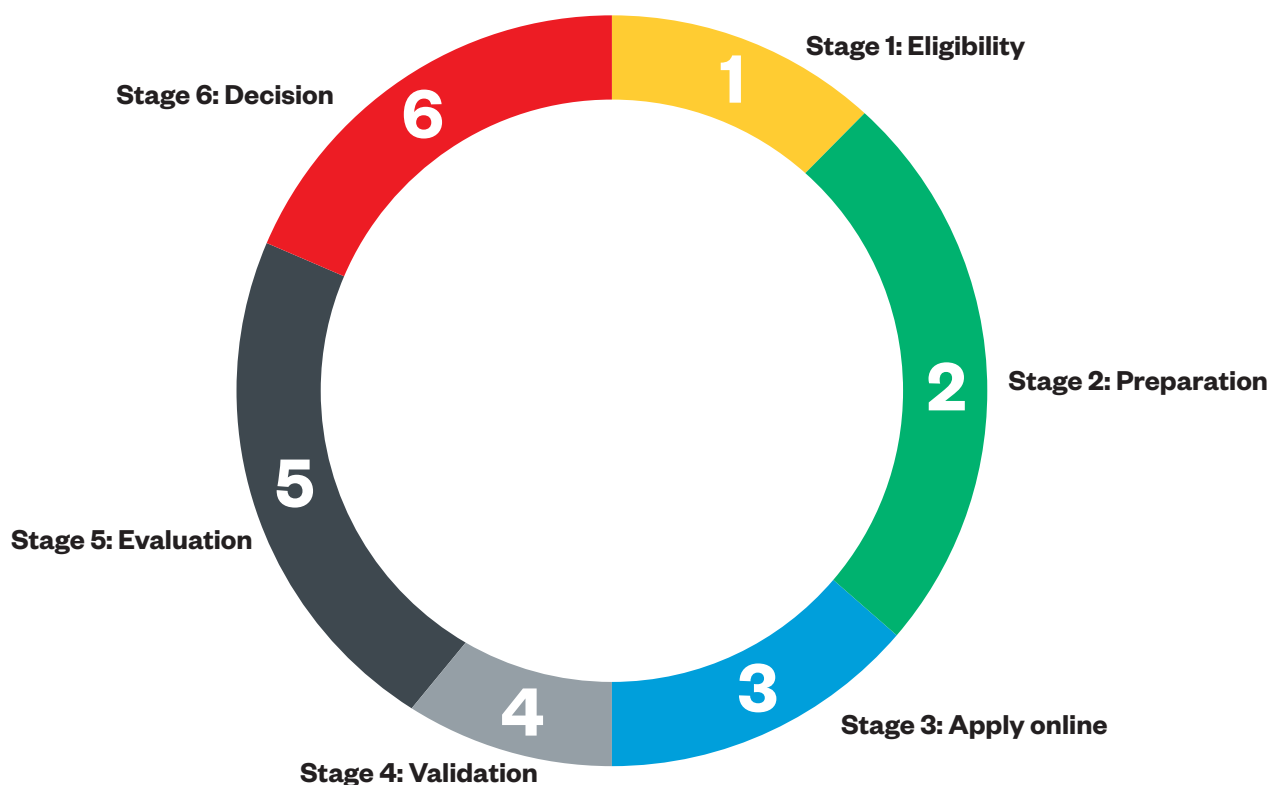
Holding registration as a CPEng gives prospective employers and clients immediate respect and confidence in your abilities. Registering as a CPEng also opens the door to career progression, leadership development and opportunities to work overseas.

Chartered Professional Engineers are recognised by their peers and are held to high standards of professionalism and ethics through their commitment to the CPEng Code of Ethical Conduct. This is critical to maintaining and enhancing public trust and confidence in the profession.

## Our process

If you're completing a Chartered assessment for the first time, your application will go through all six stages of our process:

### CPEng assessment process.



# Stage 1: Eligibility

The CPEng title is open to professional engineers who can demonstrate the required professional competence and commitment, as set out in the [CPEng Rules](#). You don't need to be a member of Engineering New Zealand to apply. Individuals develop the required competence for CPEng through education, work experience, and ongoing professional development.

## Education requirement

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To be eligible to apply to be a Chartered Professional Engineer, you must have a Washington Accord-accredited qualification (In New Zealand this is an accredited 4-year Bachelor of Engineering (Honours)) or be able to demonstrate equivalent knowledge. You will need to demonstrate that you meet the education requirement in one of two ways:

### CREDENTIAL CHECK

The credential check process is the first step to us recognising your eligibility for registration as a Chartered Professional Engineer (CPEng). We use the credential check process to check your academic qualification(s) and/or credentials against the global engineering educational standard defined through the Washington Accord.

It's important to note, credential checks are a way to recognise formal engineering qualifications and credentials that we are able to benchmark through the Washington Accord or other bilateral and multilateral recognition agreements that we are signatories to. A credential check is not an assessment of your engineering knowledge and skill. If you are not granted Washington Accord recognition or equivalence through a credential check, it is because your education provider in your country, or the course you took, was not Washington Accord accredited.

If your credential check outcome does not meet the Washington Accord status – this does not mean that you are ineligible for CPEng. It just means we were unable to determine the level of your engineering knowledge through our international benchmarking networks. If this is the case, you will have the option to complete a more detailed Knowledge Assessment to demonstrate the required level of engineering knowledge.

[Find out more about credential checks](#)

### KNOWLEDGE ASSESSMENT

If you do not have the educational qualification or overseas registration we recognise as being of Washington Accord equivalence, we can assess if you have gained the equivalent level of knowledge.

To demonstrate that you've gained the equivalent level of knowledge, you'll need to complete our knowledge assessment. You'll need to show you have a level of technical knowledge and understanding gained through your work and learning that is equivalent to a Washington Accord-accredited qualification.

You will need to demonstrate equivalent knowledge in eight areas, known as elements. The elements are determined by the knowledge profile expected of a graduate of Washington Accord-accredited qualification. The elements are:

1. Natural sciences knowledge
2. Mathematical knowledge
3. Engineering fundamental knowledge
4. Specialist engineering
5. Design process knowledge
6. Engineering practice knowledge
7. Engineering in society knowledge
8. Research based knowledge

[Find out more about knowledge assessments](#)

## Competence requirement

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To register as a CPEng, you will need to complete an assessment to demonstrate you meet the minimum standard for registration. You will need to provide us with:

- » your work history (CV) demonstrating your involvement in complex engineering activities
- » work samples with annotations explaining how the samples demonstrate your engineering competence
- » a completed and signed self-assessment form describing how you meet the minimum standard for registration (see Appendix 1).

## Professionalism and ethics requirement

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Your CPEng assessment will also require you to provide evidence of your professional competence. You will need to:

- » commit to the CPEng Code of Ethical Conduct
- » provide two referees who must be CPEng registered engineers or equivalent<sup>1</sup>
- » demonstrate sufficient continued professional development (CPD) per year to show evidence that you have taken reasonable steps to maintain the currency of your professional engineering knowledge and skills within your current practice area since your last CPEng assessment or university graduation.

## Maintaining your registration

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To maintain your CPEng registration you will need to:

- » maintain a current practicing certificate by paying the applicable annual registration certificate charge
- » be reassessed at least every six years to demonstrate you meet the minimum standard for continued registration.

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<sup>1</sup> CPEng equivalence means a qualification or title that the Registration Authority determines requires the holder to: (a) have demonstrated competence at least equivalent to the minimum standard for registration under these rules; and (b) be bound by a code of ethical conduct that is substantially equivalent to the code of ethical conduct under these rules. Examples of CPEng equivalence, therefore, include: A Chartered Member of Engineering New Zealand (CMEngNZ) who is not classified as an Engineering Technician (CMEngNZ (Engineering Technician)) or an Engineering Technologist (CMEngNZ (Engineering Technologist)); a Chartered Engineer (CEng) registered with the Engineering Council in the UK.

## Stage 2: Preparation

### Defining the standard

It usually takes between four and six years to gain enough experience to be ready to apply for CPEng. To meet the minimum standard for registration, you need to demonstrate that you are able to practice competently in your practice area to the standard of a reasonable professional engineer.

You will be assessed on 12 broad areas of engineering performance, known as elements. To streamline the application and assessment process, we've grouped these 12 elements into four groups in the application portal:

1. Engineering knowledge	2. Managing engineering work	3. Professional acumen	4. Developing technical solutions
(1.1) Comprehend, and apply your knowledge of, accepted principles underpinning widely applied good practice for professional engineering	(2.1) Exercise sound professional engineering judgement	(3.1) Conduct your professional engineering activities to an ethical standard at least equivalent to the code of ethical conduct	(4.1) Define, investigate, and analyse complex engineering problems in accordance with good practice for professional engineering
(1.2) Comprehend, and apply your knowledge of, good practice for professional engineering that is specific to New Zealand			
(1.3) Maintain the currency of your professional engineering knowledge and skills	(2.2) Be responsible for making decisions on part or all of one or more complex engineering activities	(3.2) Recognise the reasonably foreseeable social, cultural, and environmental effects of professional engineering activities generally	(4.2) Design or develop solutions to complex engineering problems in accordance with good practice for professional engineering
	(2.3) Manage part or all of one or more complex engineering activities in accordance with good engineering management practice	(3.3) Communicate clearly to other engineers and others that you are likely to deal with in the course of your professional engineering activities	
	(2.4) Identify, assess, and manage engineering risk		

## Defining complexity

It's important that you demonstrate you can carry out engineering work at a particular level of complexity. Our definition of complexity for registration as a CPEng is defined below:

Problem	Activity
<b>Chartered Member and CPEng</b>	
<b>Complex engineering problems</b> Problems that include some or all of the following: <ul style="list-style-type: none"><li>» wide-ranging or conflicting technical, engineering, and other related issues</li><li>» no obvious solution, which means an original method of analysis is needed.</li><li>» can't be resolved without in-depth engineering knowledge</li><li>» issues not often experienced</li><li>» aren't covered by the standards and codes of practice for professional engineering</li><li>» diverse groups of stakeholders with a wide range of needs</li><li>» significant consequences in a range of contexts.</li></ul>	<b>Complex engineering activities</b> Activities or projects that include some or all of the following: <ul style="list-style-type: none"><li>» diverse resources, eg people, money, equipment, materials and technologies</li><li>» resolving critical problems that occur when a variety of technical, engineering and other related issues interact</li><li>» new materials, techniques or processes, or the innovative use of existing materials, techniques, or processes</li><li>» significant consequences in a range of contexts.</li></ul>



**Tip for success:** if the work samples you provide as evidence could be completed by an engineering technician, they will not meet the level of complexity requirements for CPEng. Have a look at Appendix 2 for our full definition of complexity levels across different types of Chartership.

## How to prepare

### KEEP TRACK OF YOUR WORK AND CPD

If you're a member of Engineering New Zealand, it's easy to keep track of your development by regularly recording your work and CPD in our member area online. If you're not a member, you'll need to ensure you save relevant work and CPD records and have them ready when you're ready to apply for CPEng.

### SELF ASSESSMENT TOOL

We have developed a self-assessment form (see Appendix 1) which you can use throughout your career to track your progress against the elements and think about the evidence that you could use to demonstrate you meet the standard. We encourage you to check your self-assessment with your manager or mentor and discuss potential development areas to focus on as you prepare for your application.

The self-assessment form groups the 12 competence elements into four groups to streamline the process for you. It contains detailed guidance on each of the elements and provides examples of performance indicators you can consider including in your application. Your completed self-assessment form will need to be signed by one of your referees. It will then need to be uploaded as part of your application. Please upload this document in the CV area of the application portal.

### ATTEND AN INFO SESSION

Engineering New Zealand will host information sessions for engineers preparing for their CPEng application throughout the year. Keep an eye on the Engineering New Zealand website – or if you're a member, sign up to our fortnightly newsletter, *Discover*, to make sure you don't miss out.



## MENTOR AND REFEREES

We strongly encourage you to find a mentor who can support you as you prepare for your CPEng application. You will also need to find two referees who are a CPEng or CPEng equivalent<sup>2</sup> to support your application. The sooner you start engaging with engineers who can support you through this process, the better.

## READ THROUGH THE APPLICATION FORM

[Appendix 5](#) provides an offline version of the online application to help you prepare. This will help ensure there are no surprises when you start completing your application online.

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<sup>2</sup> CPEng equivalence means a qualification or title that the Registration Authority determines requires the holder to: (a) have demonstrated competence at least equivalent to the minimum standard for registration under these rules; and (b) be bound by a code of ethical conduct that is substantially equivalent to the code of ethical conduct under these rules. Examples of CPEng equivalence, therefore, include: A Chartered Member of Engineering New Zealand (CMEngNZ) who is not classified as an Engineering Technician (CMEngNZ (Engineering Technician)) or an Engineering Technologist (CMEngNZ (Engineering Technologist)); a Chartered Engineer (CEng) registered with the Engineering Council in the UK.

## Stage 3: Apply online

Engineering New Zealand carries out first-time Chartered assessments during [defined periods](#) throughout the year. The list of applicants in upcoming assessment rounds is published on the [Engineering New Zealand website](#).

### a) Profile

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If you are not a member of Engineering New Zealand, you will first need to [sign up](#) for an account to be able to access the application portal. You will then need to upload your credentials and go through a credential check or knowledge assessment to demonstrate you have a Washington Accord degree or can demonstrate equivalent knowledge.

If you already have a profile in the Members area of the Engineering New Zealand website, you will need to check and update your information.

### b) Chartership and practice details

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In this section you'll choose the membership and registrations for which you want to be assessed, describe your practice area and select your practice field.

Based on your engineering class, you'll be shown the membership and registrations you can apply for. You can apply for all relevant registers as part of a single process with the same fee.

#### INTERNATIONAL REGISTERS

Joining an international register means your competence as an engineer is recognised to an international standard – building your credibility even more. It also provides opportunities and greater mobility around the world. There are three international registers you can apply for:

- » Professional Engineer: IntPE(NZ)/APEC Engineer
- » Engineering Technologist: IntET(NZ)
- » Engineering Technician: IntETn

[Read more on international registers](#)

#### DESIGN VERIFIERS

Under the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999, a design verifier is a person employed or engaged by an accredited inspection body to verify equipment design. To apply for Design Verifier Registration, you'll need to meet the required Chartered Professional Engineering standard in a practice area that includes one or more of the categories of design verification work:

- » Pressure Equipment
- » Cranes
- » Passenger Ropeways

## ENGINEERING NEW ZEALAND MEMBERSHIP OPTIONS

You can choose to be a Chartered Member of Engineering New Zealand (CMEngNZ) as well as a CPEng.

Professional Engineer	Engineering Technologist	Engineering Technician	Engineering Geologist
Complex engineering problems and activities	Broadly-defined engineering problems	Well-defined engineering problems and activities	Complex engineering geological problems and activities
Washington Accord (four-year BE) or equivalence	Sydney Accord (three-year BEngTech) or equivalence	Dublin Accord (two-year NZDE) or equivalence	Recognised postgraduate qualification in Engineering Geology
Chartered Member IntPE(NZ)/APEC Engineer	Chartered Member (Eng. Technologist) IntET(NZ)	Chartered Member (Eng. Technician) IntETn(NZ)	Chartered Member (PEngGeol)
CPEng			
Design Verifier (Passenger Ropeways)			
Design Verifier (Cranes)			
Design Verifier (Pressure Equipment)			

Dam Safety registration will be added in early 2023.

### c) Practice area and practice field(s)

CPEng rules define practice area as follows:

Practice area means an engineer's area of practice, as determined by – the area within which he or she has engineering knowledge and skills; and the nature of his or her professional engineering activities.

This is the area for which we'll assess your competence. A short description helps us assign the right assessment panel to your application.

#### PRACTICE AREA DESCRIPTION (PAD)

Describe the area in which you have engineering knowledge and skills. Focus on your core current practice area. Your practice area description (PAD) should not exceed 15 words. Avoid using first-person pronouns such as 'I' or 'me', job titles or project names, company names, and any engineering activities not evidenced within your assessment.

Use the format: **[Nature or actions] of/for/in [engineering knowledge or skills]**.

Some successful examples are:



**Design and construction monitoring of water and wastewater systems.**



**Process engineering, operation and training for wastewater treatment plants.**



**Structural design and construction monitoring of low and medium rise structures.**

Note your practice area is not a full scope of your engineering practice or competence. You may practise in other areas or fields provided you work within your competence, as governed through self-regulation and your annual commitment to the Code of Ethical Conduct.

## PRACTICE FIELD

Engineering practice fields are loosely defined terms used to indicate the nature of engineering work carried out by engineers in a certain field.

Selecting your practice field will also help us assign the right assessment panel to your application. Choose the one that best aligns with your practice area. You may choose an additional field if your practice is across more than one. See [Appendix 3](#) for practice field descriptions.

## d) Referees

You will need to nominate two referees for your application to become a Chartered Professional Engineer. We will send an invitation to your referees to provide a reference for you. If they accept the invitation, they'll be asked to provide information about your technical competence and professionalism. If a referee declines your request, you'll need to provide another person.



### DEFINING ACCEPTABLE REFEREES

Both referees need to be current CPEng or equivalent<sup>3</sup>. Your referee must be familiar with your technical and professional capabilities and be able to confidently provide a reference. They should also be competent in the practice area for which you are applying and familiar with your technical skills.

- ✓ Two referees provided. In accordance with the Rules, these must be CPEng registered engineers or equivalent.
- ✓ Ideally at least one referee who does not work within the same company as you.
- ✓ The referee could be someone who has peer reviewed work samples, or been involved in a collaborative project with you.
- ✗ A referee who is not familiar with your technical skills
- ✗ Referees who are conflicted in that they have a personal relationship with you or have a financial interest in the outcome of the assessment.



**Tip for success:** Finding referees can be challenging for people in small companies. We recommend you consider your referees well before applying for CPEng reassessment, and ensure these people have sufficient familiarity with your work. We encourage you to develop your professional network by actively engaging with the local Engineering New Zealand branch and/or relevant technical interest groups.

Referees will be asked the following questions:

### GENERAL

Please provide details of your relationship to the applicant. Please also confirm that you can provide a reference based on an understanding of the applicant's work within their practice area. If you're unable to provide a technical reference in the practice field of the applicant, please decline this request for a reference.

### ENGINEERING COMPETENCY

Please comment on the technical engineering competence (specifically in analysis and design/problem solving) of the applicant to practice within their practice area. Do you consider the engineer to be competent in the engineering work that they do? Do you think they demonstrate knowledge and application of current practice in their field and an ability to develop safe and effective engineering solutions? Why or why not?

### PROFESSIONAL

What aspects of professionalism do you believe the applicant brings to their work? Please include detail of their relationships with stakeholders, compliance with legislation, and health and safety compliance, where appropriate. Is there anything about the practice of the applicant that would raise a potential concern? Do you support their registration as a Chartered Professional Engineer?

<sup>3</sup> CPEng equivalence means a qualification or title that the Registration Authority determines requires the holder to: (a) have demonstrated competence at least equivalent to the minimum standard for registration under these rules; and (b) be bound by a code of ethical conduct that is substantially equivalent to the code of ethical conduct under these rules. Examples of CPEng equivalence, therefore, include: A Chartered Member of Engineering New Zealand (CMEngNZ) who is not classified as an Engineering Technician (CMEngNZ (Engineering Technician)) or an Engineering Technologist (CMEngNZ (Engineering Technologist)); a Chartered Engineer (CEng) registered with the Engineering Council in the UK.

## e) Continued Professional Development (CPD)

CPD must be completed to show evidence that you have taken reasonable steps to maintain the currency of your professional engineering knowledge and skills within your current practice area over the past six years or since graduation.

### DEFINING ACCEPTABLE CPD

You need to have done at least 40 hours of CPD per year over the past six years or since graduation. If applying for more than one practice field, you will need an additional 15 hours per year of CPD for each additional practice field.

- ✓ Evidence of learning linked to the application of contemporary knowledge of the engineer's practice area
- ✓ CPD activities across different categories (we recommend at least 15 hours related to each of their practice fields, a few hours addressing risk management and business processes, courses on professional ethics, cultural competency and then a range of activities across career interests)
- ✓ CPD can be tertiary courses, short courses, workshops, seminars, discussion groups, conferences, technical inspections, and technical meetings that are non-routine and contribute to your development as an engineering professional. Private study and service to the engineering profession can also be counted towards CPD.
- ✓ Where applicable, relevant seminars hosted by a Collaborating Technical Society (CTS)
- ✗ 40 hours of 'on the job reading'
- ✗ 40 hours of 'mentoring'

If you have been on a [career break](#) that we need to know about, please make this clear in the self-assessment area of your application.

### WHAT IS AN EXAMPLE OF GOOD CPD?

A good mix of CPD is a requirement and your CPD activities must demonstrate your new learnings in your chosen practice area. The table below sets out the ideal mix of CPD for CPEng applications:

CPD Areas	Recommended hours
<b>Technical</b> <ul style="list-style-type: none"><li>» Attending recognised technical group meetings, external or internal technical training courses and/or technical conference papers</li><li>» Developing new technical standards or revising technical codes</li><li>» Preparing and presenting papers at conferences, and presenting technical training courses</li></ul>	No upper limit on number of hours  Minimum 15 hours of technical CPD activities per practice field
<b>Professionalism</b> eg courses on professional ethics, cultural competency, climate, sustainability and others.	Minimum 2 hours (5% of total)
<b>Business/Leadership</b> eg Commercial Training Project Management, 3910 Contracts, business management skills, managerial training	Maximum 20 hours (no more than 50% of your total)
<b>Professional engineering engagement/contribution to the profession</b> eg mentoring, guiding, assessment of others, service on branch committees, accreditation panels	Maximum 8 hours (no more than 20% of total)
<b>Training courses in Health and Safety</b> including requirements of the Act, First Aid, Site Safe, restricted access training. Delivering such courses. Development of Health and Safety procedures	Maximum 5 hours (no more than 13% of total)

## WHAT COUNTS TOWARDS MY CPD?

CPD can be tertiary courses, short courses, workshops, seminars, discussion groups, conferences, technical inspections, and non-routine technical meetings that contribute to your development as an engineering professional.

Self-learning, which could comprise a mixture of self-reading, self-research, watching technical informative videos, can also be counted towards CPD – but this should be no more than 50% of your total CPD for each year.



## WHAT ARE ASSESSORS LOOKING FOR?

### CPD review questions

- ☐ Is there evidence of a planned approach to continuing professional development?
- ☐ Has the engineer completed 40 hours of CPD each year? Are the CPD records provided diverse and broad?
- ☐ Is the CPD relevant to the engineer's practice area?
- ☐ Is the CPD considered sufficient for the engineer to have maintained currency of knowledge?
- ☐ Have all areas in CPD records been completed? (ie learning outcomes have been populated)

## f) Work history (CV)

Your work history must be provided in the form of an up-to-date CV. You must also upload your self-assessment form ([Appendix 1](#)), to guide assessors through your application and work samples.



## DEFINING ACCEPTABLE WORK HISTORY

Where possible, your CV should be no more than three pages and should allow an assessor to see your area of practice since you graduated.

- ✓ Provide the name, location and contact details of employing organisations, as well as the dates and duration of employment, the title of your position, details of your role and how your work demonstrates your competency as a professional engineer.
- ✓ Provide sufficient work history to demonstrate the broad scope of competency required for your practice area.
- ✓ Clearly describe projects you were involved in, and your role in the team, with a particular focus on the period since your last assessment.
- ✗ A list of projects you have worked on with no information on your roles and responsibilities.



## WHAT IS AN EXAMPLE OF A GOOD CV?

See [Appendix 4](#) for CV templates you can use to document your work history.



## WHAT ARE ASSESSORS LOOKING FOR?

### Work history review questions

- ☐ Has the engineer provided work history for the period since their last assessment/graduation?
- ☐ Does their work history align with their practice area?
- ☐ Does the work history detail the projects they have been involved with?
- ☐ Does the work history detail their role and responsibilities in each project?
- ☐ Does their work history demonstrate successful completion of complex engineering work in their practice area?
- ☐ Does their work history demonstrate ongoing involvement in the profession?

## g) Self-assessment

In this section you need to provide statements of self-review explaining how you meet the standard for registration. The work you have already done on your self-assessment form help you to complete this section easily. Make sure you reference your work samples, including specific sections and page numbers, to back up your statements. Aim for approximately 500 words per competency group.



## WHAT ARE ASSESSORS LOOKING FOR?

Assessors are seeking evidence of your competencies and professional engineering experience, which means they need to understand the complexity of the engineering work you personally undertook as opposed to overall project complexities. They require clarity as to the work you personally were responsible for, how you incorporated new learnings and good practice into the solutions you developed and how you addressed matters of complexity.

When writing your self-assessment, think about each of the 12 competence elements, and write about how you identify, define, investigate, and analyse complex engineering problems in line with good practice for professional engineering and how you'd design or develop solutions to complex engineering problems in line with good practice for professional engineering.

## h) Evidence: Work samples

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This part of your application is key to demonstrating your current technical competence. You'll be able to choose from your existing work and CPD records or add new ones, and will need to explain how each supports your assessment application. When applying for CPEng, an assessor needs to confirm that the provided work samples clearly demonstrate competency in relation to the 12 elements.

You will need to provide sufficient evidence to demonstrate competence in your practice area. For most candidates, this is around 4 to 6 work samples.

We recommend providing quality over quantity. If evidence is missing, incomplete, or can't be clearly interpreted by an assessor then you'll be advised and further information requested.



### DEFINING ACCEPTABLE WORK SAMPLES

Work samples that are provided should be clear and professionally presented so that an assessor can clearly confirm you are competent.



### WHAT IS AN EXAMPLE OF A GOOD WORK SAMPLE?

- ✓ Evidence statements clearly state how files provided are relevant to the assessment, and which competency group they relate to.
- ✓ New Zealand specific examples been provided or knowledge of the New Zealand context demonstrated.
- ✓ Explanations as to how the work samples demonstrate complex work.
- ✓ The work samples provided clearly show this as being the engineer's work.
- ✗ Drawings or calculations only, with no supporting documentation.
- ✗ Pages of printed spreadsheets, with unclear calculations or derivations.

### Tips for success

- » When writing up your submission remember to talk about yourself using 'I', 'me' or 'my'. The assessors don't want to know what the team did as part of a project – they're only interested in your involvement.
- » Record your work samples as you go – you don't want to have to go looking for work you did four, five or six years ago!
- » Exercise judgement and submit your best evidence, not everything you think might be relevant. Try to show multiple competency groups and complexity in the majority of the projects you are working on.
- » Remember, it is up to you to demonstrate you are competent. Although the assessors will come back to you if they find any gaps in your evidence and give you the opportunity to provide further evidence, it is not their role to interrogate you to determine your competency.



### WHAT ARE ASSESSORS LOOKING FOR?

- ☐ Has the engineer provided at least two (reassessment) or four (assessment) work records?
- ☐ Do evidence statements clearly state how files provided are relevant to the assessment, and which competency group they relate to?
- ☐ Have New Zealand specific examples been provided or knowledge of the New Zealand context mentioned?
- ☐ Has the engineer explained how the work samples demonstrate complex work? ([See Appendix 2](#))

## i) Declarations

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Before you can submit your application, you will be asked to:

- » Declare any criminal convictions
- » Declare your commitment to the Code of Ethical Conduct
- » Declare any disciplinary proceedings
- » Declare any declined applications
- » Consent for your name to be published on the Engineering New Zealand website for up to 21 days, allowing the public to provide evidence on whether or not you meet the required standard.

## Stage 4: Validation

The next step is to submit your application to our team for validation. One of our Competence Assessment Advisors will look after your application from start to finish. Your advisor will check the information you've provided and will aim to give you feedback within 10 working days. They'll let you know if you need to make any changes before your application is sent to an Assessment Panel. Note that our advisors are checking the completeness of your application and are not qualified to evaluate the content of the information you provide. Therefore, you may still be asked to submit additional information by your assessment panel at the next stage of your assessment (evaluation).

If your Advisor asks you to make changes, it is in your best interests to get them done as soon as possible and then resubmit for validation. If you take longer than two weeks to do so, your application is likely to be delayed.

When going through your application, Competence Assessment Advisors go through the following validation checklist.

### VALIDATION ITEMS

- ☐ **Verified Washington Accord Equivalence**
- ☐ **All personal details are completed** – this includes employer, submission date, location, technical group membership
- ☐ **Practice area statement** is clear and concise
- ☐ **Work samples** have been provided and are acceptable
- ☐ **Evidence statements** clearly state how files provided are relevant to the assessment, and which competency group they relate to.
- ☐ **Are the work samples provided from overseas?** If so, does the application demonstrate knowledge of the New Zealand context?
- ☐ **CPD requirements** have been met (minimum 40 hours per year; broad and diverse)
- ☐ **Acceptable referees** have been provided
- ☐ **Have any concerns been raised with Engineering New Zealand by a third party?**
- ☐ **Is there a disciplinary order or complaint against the candidate?**
- ☐ **Any previous declined CPEng applications?**

## Stage 5: Evaluation

Once your application is finalised, an assessment panel will be assigned to you. This usually comprises a Lead Assessor and Practice Area Assessor with knowledge or experience relevant to your practice area.

They'll review your application over 8–10 weeks and as part of this, may meet with you to discuss it as well. This is called an 'Interactive' and is normally held via videoconference.

The panel will use the evidence you submit and the information from your Interactive to complete a report and recommendations on your application. They might also ask for further evidence to support your application.

Once they've got all the information they need, the panel will make a recommendation to the Competency Assessment Board (CAB) about whether to approve your application. The CAB will consider the panel's recommendation and make a decision on your application at their monthly meeting. Occasionally the CAB asks for additional information. Your advisor will let you know if that happens.



## How to prepare for the Interactive

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The Interactive lets your assessment panel find out more about the projects in which you've been involved. It is a professional conversation, rather than an interrogation. It is an opportunity to demonstrate your understanding of the engineering behind the competency examples submitted in your application. Be ready to talk your panel through the work samples you've provided in relation to your practice area, and think about how you might answer questions around the following:

- » outline of the project (what was involved, when was it done; who was involved)
- » how the project demonstrates your work on complex engineering problems and activities
- » challenges you faced
- » lessons you learned
- » ethical dilemmas/issues you dealt with.

## Stage 6: Decision

Your advisor will let you know the proposed outcome of your application. If successful, your name will appear on our [Find an engineer](#) public register. If your application is unsuccessful or the CAB made an alternative decision, you will have the opportunity to respond. Your advisor will talk you through your options.

## International applicants

### CPENG: CPENG MUTUAL RECOGNITION SHORT-FORM ASSESSMENT

If you hold professional recognition with a recognised authority overseas, you will still need to be assessed for CPEng. This involves:

- » Credential check
- » Two work samples (minimum) that show New Zealand specific knowledge and evidence of current good practice
- » Work samples need to provide evidence of one of the four competence groups (Engineering Knowledge) to address elements relating to local knowledge and CPD.

# Appendix 1: Self-assessment form

**An editable Word version of this form is available for download on the Engineering New Zealand website.**

Use this form to track your progress and complete your self-assessment on how you meet the competency standard for Chartership, and upload this with your application. When you have completed the form, ask one of your eligible referees to sign it, then upload it with your application.

Name of applicant \_\_\_\_\_

Membership number or date of birth \_\_\_\_\_

## Competency Standards

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To meet the minimum standard, you must demonstrate that you are able to practice competently in your practice area to the standard expected of a reasonable professional engineer. The extent to which you are able to perform each of the following numbered elements in your practice area must be taken into account in assessing whether you meet the overall standard. You'll also need to show you can carry out engineering work at a particular level of complexity (see details later in this document).

Each competency standard is described below, together with performances indicators which help clarify how you may be able to demonstrate that you have met the standard. Note that as these are indicators, you do not need to provide evidence on every indicator – in fact, your area of work may have completely different indicators and that's ok. The indicators are there as a guide.

**WARNING:** Having your assessment written by another person or persons (this includes all hiring or use of any third-party professional writers/companies to assist or complete your documentation) constitutes unethical behaviour and may result in serious consequences including but not limited to immediate rejection of the application along with the imposition of a stand-down period before you can reapply.

# Competency Standard Group 1: Engineering knowledge

A solid foundation in engineering knowledge is necessary for any engineer. Within your practice area, we'd like you to demonstrate your ability to understand and apply your knowledge of accepted principles that support:

## 1. Widely applied good practice for professional engineering

Performance indicators include:

- » Has a Washington Accord degree or recognised equivalent qualification or has demonstrated equivalent knowledge and is able to:
- » Identify, comprehend and apply appropriate engineering knowledge
- » Work from first principles to make reliable predictions of outcomes
- » Understand assumptions and constructs of mathematical or theoretical models and is able to determine the relevance of their use in given situations
- » Seek advice, where necessary, to supplement own knowledge and experience
- » Read literature, comprehend, evaluate and apply new knowledge

## 2. Good practice and local knowledge for professional engineering specific to New Zealand (for CPEng) or the country where you work (for Chartered Membership)

Performance indicators include:

- » Understands and operates within the legal and regulatory framework in the jurisdiction.
- » Understands and applies appropriately the special engineering requirements operating within the jurisdiction.
- » Understands and applies codified knowledge such as standards, practice notes, codes of practice etc

## 3. Continually update your professional engineering knowledge and skills to make sure they remain relevant

Performance indicators include:

- » Demonstrating a commitment to extending and developing knowledge and skills
- » Participating in education, training, mentoring or other programmes contributing to his/her professional development
- » Adapting and updating knowledge base in the course of professional practice
- » Demonstrating collaborative involvement with professional engineers (New Zealand engineers for CPEng assessments)
- » Awareness and application of recent developments within his or her own practice area

## COMPETENCY STANDARD GROUP 1: ENGINEERING KNOWLEDGE

### How to answer

In documenting your evidence for this group, please refer to the following prompts, and give examples from one or more work samples:

- » How do you use your engineering knowledge?
- » Which pieces of legislation, technical standards and guidelines do you use in your work?
- » How do you keep up-to-date with developments in your practice area and in professional engineering in general?

### Brief summary (approximately 500 words):

Please reference the evidence you wish to provide for this group (name of evidence; page number):

## Competency Standard Group 2: Managing engineering work

Managing people and projects is an integral part of being an engineering professional. To understand your approach to managing engineering work we need you to demonstrate, within your practice area, how you:

### **1. Take responsibility for making decisions (all or part of) on one or more complex engineering activities**

Performance indicators include:

- » Taking accountability for their own outputs and for those for whom they are responsible
- » Accepting responsibility for their engineering activities

### **2. Manage (all or part of) one or more complex engineering activities in line with good engineering management practice**

Performance indicators include:

- » Planning, scheduling organising and monitoring progress of projects or activities to deliver specified outcomes within time constraints
- » Applying appropriate quality assurance techniques
- » Managing resources, including personnel, finance and physical resources
- » Managing conflicting demands and expectations
- » Managing in multi-disciplinary and multi-cultural environments.

### **3. Make sound professional engineering judgement**

Performance indicators include:

- » the ability to identify alternative options
- » the ability to choose between options and justify decisions
- » Peer recognition of ability to exercise sound professional engineering judgement.

### **4. Identify, assess, and manage engineering risk**

Performance indicators include:

- » Identifying risks which impact on people, property and the environment
- » Developing risk management policies, procedures and protocols to manage safety and hazards during construction/fabrication and product life cycles
- » Managing risks through 'elimination, minimisation and avoidance' techniques
- » Designing for safety during construction/fabrication, operation, maintenance and de-construction/decommissioning
- » Informing decision makers of significant consequences from not following advice (eg, relating to risks, safety etc)

## COMPETENCY STANDARD GROUP 2: Managing Engineering work

### How to answer

In documenting your evidence for this group, please refer to the following prompts, and give examples from one or more work samples:

- » What technical and management decisions do you make, or assist others in making?
- » How do you manage projects, people and finances?
- » How do you manage risk?
- » Give an example where you have identified options, and chosen between these options in a logical way.
- » Why do you feel that the engineering problems referred to here are complex, using Engineering New Zealand's definition of complexity?

### Brief summary (approximately 500 words)

### Please reference the evidence you wish to provide for this group (name of evidence; page number)

## Competency Standard Group 3: Professional acumen

Professionalism builds trust and instils confidence in the people you come into contact with during your engineering activities. Within your practice area, please demonstrate how you:

### **1. Carry out your professional engineering activities to an ethical standard, at least equivalent to the code of ethical conduct**

Performance indicators include:

- » Understanding the Engineering New Zealand and/or the CPEng codes of ethics
- » Behaving in accordance with the relevant code of ethics even in difficult circumstances (this includes demonstrating an awareness of limits of capability; acting with integrity and honesty and demonstrating self-management)

### **2. Recognise the likely general social, cultural, and environmental effects of professional engineering activities**

Performance indicators include:

- » Considering long term issues and impact(s) of own engineering activities, such as use of materials, waste during fabrication/construction, energy efficiency during use, obsolescence and end-of-life issues.
- » Considering and taking into account possible social, cultural and environmental impacts and consulting where appropriate
- » Giving special consideration of Te Tiriti o Waitangi—and the consequent responsibilities
- » Recognising impact and long-term effects of engineering activities on the environment
- » Recognising foreseeable effects and where practicable seeking to reduce adverse effects

### **3. Communicate effectively with engineers and others**

Performance indicators include:

- » Using oral and written communication to meet the needs and expectations of their audience
- » Communicating using a range of media suitable to the audience and context
- » Communicating effectively in multi-disciplinary and multi-cultural settings
- » Treating people with respect
- » Developing empathy and using active listening skills when communicating with others
- » Operating effectively as a team member

## COMPETENCY STANDARD GROUP 3: PROFESSIONAL ACUMEN

### How to answer

In documenting your evidence for this group, please refer to the following prompts, and give examples from one or more work samples:

- » What ethical dilemmas do you face in your engineering work (refer to Engineering New Zealand's Code of Ethical Conduct)?
- » What is important to you when communicating with others? Consider one-on-one discussions, meetings and presentations.
- » Discuss how you consider (ie take account of) a range of social, cultural (including interactions with Te Ao Māori) and environmental effects in your work?

### Brief summary (approximately 500 words)

### Please reference the evidence you wish to provide for this group (name of evidence; page number)



## Competency Standard Group 4: Developing technical solutions

Applying engineering principles to develop technical products or solutions that benefit society is a vital part of being an engineer. Within your practice area, please demonstrate how you:

### **1. Define, investigate, and analyse complex engineering problems in line with good practice for professional engineering**

Performance indicators include:

- » Identifying and defining the scope of the problem
- » Investigating and analysing relevant information using quantitative and qualitative techniques
- » Testing analysis for correctness of results
- » Conducting any necessary research
- » Reaching substantiated conclusions using evidence-based and theoretical principles – including those derived by mātauranga Māori

### **2. Design or develop solutions to complex engineering problems in line with good practice for professional engineering**

Performance indicators include:

- » Identifying needs, requirements, constraints and performance criteria, including as appropriate the need to design for safety, constructability, maintainability etc
- » Developing concepts and recommendations that have been tested against engineering principles
- » Consulting with stakeholders including Mana Whenua and Tangata Whenua
- » Evaluating options and selecting solutions that are best matched to needs, requirements and criteria
- » Planning and implementing effective, efficient and practical systems or solutions
- » Evaluating outcomes against original specification or design brief
- » Developing solutions that are informed by appropriate consideration for societal, health, safety, legal and cultural issues, the rights of Tangata Whenua, and environmental factors.

## COMPETENCY STANDARD GROUP 4: DEVELOPING TECHNICAL SOLUTIONS

### How to answer

In documenting your evidence for this group, please refer to the following prompts, and give examples from one or more work samples:

- » How do you analyse engineering problems?
- » How do you know that any analysis is appropriate for the situation?
- » Discuss a design problem that you have solved. In doing this, explain:
  - » How did you understand the design issues? Include examples of stakeholders that were consulted.
  - » How did you develop solution concepts and choose between them?
  - » How did you implement the detailed design solution?
- » How do you know the chosen design solution is appropriate?
- » Why do you feel the engineering problems referred to here are complex, using Engineering New Zealand's definition of complexity?

### Brief summary (approximately 500 words)

### Please reference the evidence you wish to provide for this group (name of evidence; page number)

## Referee details

<b>Name</b>	
<b>Job title</b>	
<b>Company name</b>	
<b>Email</b>	
<b>Relationship to applicant</b>	

## Referee declaration

- ☐ I confirm that, to the best of my knowledge, the self-assessment statements and work referenced as evidence are a true account of the applicant's work experience.
- ☐ I understand that Engineering New Zealand may contact me directly if they have any questions regarding the applicant's evidence or my verification of it.
- ☐ By submitting this report, I understand and acknowledge that my report will be used and retained by Engineering New Zealand for assessment purposes.

Referee signature \_\_\_\_\_ Date \_\_\_\_\_

# Appendix 2: How we define complexity

Depending on the type of Chartership you're applying for, you'll need to show you can carry out engineering work at a particular level of complexity.

Problem	Activity
<b>Chartered Member and CPEng</b>	
<b>Complex engineering problems</b> Problems that include some or all of the following: <ul style="list-style-type: none"><li>» Wide-ranging or conflicting technical, engineering, and other related issues</li><li>» No obvious solution, which means an original method of analysis is needed.</li><li>» Can't be resolved without in-depth engineering knowledge</li><li>» Issues not often experienced</li><li>» Aren't covered by the standards and codes of practice for professional engineering</li><li>» Diverse groups of stakeholders with a wide range of needs</li><li>» Significant consequences in a range of contexts</li></ul>	<b>Complex engineering activities</b> Activities or projects that include some or all of the following: <ul style="list-style-type: none"><li>» Diverse resources, eg people, money, equipment, materials and technologies</li><li>» Resolving critical problems that occur when a variety of technical, engineering and other related issues interact</li><li>» New materials, techniques or processes, or the innovative use of existing materials, techniques, or processes</li><li>» Significant consequences in a range of contexts</li></ul>
<b>Chartered Member (Engineering Technologist)</b>	
<b>Broadly-defined engineering problems</b> Problems that include some or all of the following: <ul style="list-style-type: none"><li>» A variety of factors that may create conflicting constraints</li><li>» Can be solved by applying proven analysis techniques</li><li>» Knowledge of principles and applied procedures or methods</li><li>» Belong to groups of familiar problems that are solved in well-accepted ways</li><li>» May be partly outside problems covered by standards or codes of practice</li><li>» Several groups of stakeholders with differing needs that occasionally conflict</li><li>» Consequences that are important locally but may have wider implications</li><li>» Are parts of, or systems within, complex engineering problems</li></ul>	<b>Broadly-defined engineering activities</b> Activities or projects that include some or all of the following: <ul style="list-style-type: none"><li>» A variety of resources, eg people, money, equipment, materials, information and technologies</li><li>» Resolving occasional interactions between limited technical, engineering and other related issues where only a few conflict</li><li>» Using new materials, techniques or processes in innovative ways</li><li>» Consequences that are very important locally, but may have wider implications</li><li>» Knowledge of normal operating procedures and processes</li></ul>
<b>Chartered Member (Engineering Technician)</b>	
<b>Well-defined engineering problems</b> Problems that include some or all of the following: <ul style="list-style-type: none"><li>» Several issues, but only a few that result in conflicting constraints</li><li>» Can be solved using a systematic approach</li><li>» Resolved with limited theory but extensive practical knowledge</li><li>» Frequently experienced and so familiar to most practitioners in the practice area</li><li>» Covered by standards and/or documented codes of practice</li><li>» Limited range of stakeholders with differing needs</li><li>» Consequences that are important locally but aren't far-reaching</li><li>» Discrete components of engineering systems</li></ul>	<b>Well-defined engineering activities</b> Activities or projects that include some or all of the following: <ul style="list-style-type: none"><li>» Limited range of resources, eg people, money, equipment, materials, information and technologies</li><li>» Resolving interactions between limited technical and engineering issues where wider issues have little or no impact</li><li>» Using existing materials, techniques or processes in new ways</li><li>» Consequences that are important locally but aren't far-reaching</li><li>» Knowledge of practical procedures and practices for widely applied operations and processes</li></ul>

## Chartered Member (PEngGeol)

### Complex engineering geological problems

Problems that include some or all of the following:

- » Wide-ranging or conflicting engineering, engineering geological and other related issues
- » Not easily recognised, understood or solved, which means an original method of analysis is needed
- » A wide range of issues that might be in an unfamiliar setting
- » Aren't covered by guidelines, standards and codes of practice for professional engineering geology
- » Diverse groups of stakeholders with a wide range of needs
- » Significant consequences in a range of contexts

### Complex engineering geological activities

Activities or projects that include some or all of the following:

- » Diverse resources, eg people, money, equipment, materials and technologies
- » Recognising, understanding and resolving significant problems when wide-ranging or conflicting engineering, engineering geology and/or other related issues interact
- » New techniques or processes, or the innovative use of existing techniques or processes

# Appendix 3: Practice field descriptions

Engineering practice fields are loosely defined terms and are used as an indication of the nature of engineering work carried out by engineers in a certain field.

## AEROSPACE ENGINEERING

Aerospace engineering is the design, development, and production of aircraft (aeronautical engineering), spacecraft (astronautical engineering) and related systems. Aerospace engineers may specialise in aerodynamics, avionics, structures, control systems or propulsion systems. It may involve planning maintenance programmes, designing repairs and modifications and exercising strict safety and quality controls to ensure airworthy operations.

## BIOENGINEERING

Bioengineering draws heavily on the Chemical engineering discipline and involves the engineered development of raw materials to produce higher value products, using biological systems (biological catalysts). The description also encompasses the general application of engineering to biological systems to develop new products or solve problems in existing production processes. As examples, bioengineers are found in medical research, genetic science, fermentation industries and industries treating biological wastes.

## BUILDING SERVICES

Building Services engineering is the application of mechanical or electrical engineering principles, and an understanding of building structure, to enhance all aspects of the built environment from air conditioning and mechanical ventilation, electrical light and power, fire services (e.g. sprinklers and alarms), water and waste services, data and communications, security and access control, vertical transportation, acoustics and energy management.

## CHEMICAL ENGINEERING

Chemical engineering is concerned with the ways in which raw materials are changed into useful and commercial end products such as food, petrol, plastics, paints, paper, ceramics, minerals and metals. Often these processes are carried out at large scale plants. Research of raw materials and their properties, design and development of equipment and the evaluation of operating processes are all part of chemical engineering.

## CIVIL ENGINEERING

Civil engineering is a broad field of engineering concerned with the, design, construction, operation and maintenance of structures (buildings, bridges, dams, ports) and infrastructure assets (road, rail, water, sewerage). The Civil engineering discipline underpins several engineering fields such as Structural, Mining, Geotechnical and Transportation engineering, in which civil engineers often specialise. General Civil engineers are likely to be competent to undertake work that relates to one or more of these areas.

## CONSTRUCTION ENGINEERING

Construction engineering is a specialty field of civil engineering concerned with the oversight and management of large-scale infrastructure and building projects. Construction engineers coordinate design, plan, schedule and apply cost control oversight to complex projects to ensure environmentally sound, safe and efficient construction.

## ELECTRICAL ENGINEERING

Electrical engineering is the field of engineering which deals with the practical application of electricity. It deals with the aspects of planning, design, operation and maintenance of electricity generation and distribution, and use of electricity as a source of energy within major buildings, industrial processing complexes, facilities and transport systems. It includes the associated networks and the equipment involved such as switchboards, cabling, overhead lines/catenaries, earthing, control and instrumentation systems.

Areas of specialisation within the wider electrical engineering discipline, such as electronics and telecommunications are usually concerned with using electricity to transmit information rather than energy. For this reason, electronics and radiocommunications/telecommunications are captured under the field of Information engineering.

## ENGINEERING ACADEMIC

The Academic practice field is defined for engineering academic staff members from tertiary education including engineering researchers.

In tertiary education, academic staff members may be involved in engineering activities in various roles, from building engineering prototypes, to contributing to knowledge in engineering. Engineering academic staff members may not be directly involved in the engineering design process but undertaking cutting edge engineering research to lead and enhance engineering activities. Examples of work samples of engineering academic staff members may be their authored quality assurance publications in engineering disciplines, and/or their authored quality assurance engineering reports at NZQA level 7, 8, 9 or 10 (graduate or postgraduate level). Academic staff members who are teaching an engineering programme without quality assurance publications in engineering disciplines or quality assurance engineering reports, may not qualify for academic practice field.

## ENGINEERING MANAGEMENT

Engineering Management is a field of practice where engineers from any technical engineering background exercise engineering judgement in making decisions on the application and optimisation of physical, human and financial resources to achieve engineering outcomes in related processes or business activities. Engineering Managers may not be directly involved in the engineering design process.

**General management** – where engineering knowledge is of benefit or essential and covering many engineering disciplines.

- » Qualifies as Management practice field.
- » Example: Chief Executive or Director of an engineering or construction company.

**Engineering management** of a multi-disciplinary team where engineering knowledge is essential but specific discipline knowledge is not essential.

- » Qualifies as Management practice field.
- » Example: Engineering manager of a local authority or manufacturing company. A judgement may be necessary, but err towards including the management field – the candidate is appropriate for both management and discipline fields. (Note: an example grey area is the general manager of a lines company where electrical engineering knowledge may be essential for the role).

**Management or leadership of a team**, however large, where the candidate must have engineering knowledge to do the job competently. This management is part of the skills and knowledge of the discipline.

- » Would not normally qualify as Management practice field.
- » Example: Chief structural engineer of a large consultancy or compliance authority. A judgement may be necessary but err towards including the management field if management activities are beginning to dominate – the candidate may be appropriate for both management and discipline fields.

**Part time management of a small practice or branch** of a consulting practice managing budgets and staff and clients while carrying out frontline engineering or being the responsible person signing off compliance certificates.

- » Would not normally qualify for the Management practice field, as a certain amount of management is part of the engineering function, and is 'business as usual' for an engineer in this situation. (Note: Grey area accepted as to the boundary between 'business as usual' and the management becoming dominant. As an acid test, ask "could they give up their discipline practice field?". If not, then Management should not apply. If so, then in theory they need to go through a full review to justify the change in practice field/area description. A balanced decision may lead to having the two practice fields).

**Full time engineering role** where the applicant claims that they "do management", as well as advising clients, planning other workloads, training staff etc.

- » Would not qualify for the Management practice field, as management is part of their normal engineering activity. This includes project management, unless it is dominant, in which case the practice field is still their engineering knowledge (discipline), and project management is written into the practice area description (ie they use their discipline skills to do project management).

## ENVIRONMENTAL ENGINEERING

Environmental engineering draws on the Civil and Chemical engineering disciplines to provide healthy water, air and land to enhance human habitation. Environmental engineers devise, implement and manage solutions to protect and restore the environment, within an overall framework of sustainable development. The role of the environmental engineer embraces all of the air, water and soil environments, and the interactions between them.

## FIRE ENGINEERING

Fire engineering draws on knowledge from the range of engineering disciplines to minimise the risk from fire to health and safety and damage to property through careful design and construction. It requires an understanding of the behaviour of fires and smoke, the behaviour of people exposed to fires and the performance of burning materials and structures, as well as the impact of fire protection systems including detection, alarm and extinguishing systems.

## GEOTECHNICAL ENGINEERING

Geotechnical engineering involves application of knowledge of earth materials in the design of structures, such as foundations, retaining walls, tunnels, dams and embankments. Geotechnical engineers assess the properties and performance of earth materials such as their stability and strength, and the impact of groundwater.

## INDUSTRIAL ENGINEERING

Industrial engineering is the application of mechanical and electrical engineering principles to the design and operation of production equipment, production lines and production processes for the efficient production of industrial goods. Industrial engineers understand plant and procedural design, the management of materials and energy, and human factors associated with worker integration with systems. Industrial engineers increasingly draw on specialised knowledge of robotics, mechatronics, and artificial intelligence.

## INFORMATION ENGINEERING

Information engineering is based on the Electrical engineering discipline but also draws heavily from Computer Science. Three areas of further specialisation can be identified:

**Software engineering** – the development and operation of software-intensive systems that capture, store and process data.

**Telecommunications engineering** – the development and operation of systems that encode, transmit and decode data via cable systems (including fibre optics) and wireless systems (radiocommunications).

**Electronics engineering** – the design, development and testing of electronic circuits and networks that use the electrical and electromagnetic properties of electronic components integrated circuits and microprocessors to sense, measure and control processes and systems.

## MECHANICAL ENGINEERING

Mechanical engineering involves the design, manufacture and maintenance of mechanical systems. Mechanical engineers work across a range of industries and are involved with the design and manufacture of a range of machines or mechanical systems, typically applying principles of hydraulics (fluid control), pneumatics (air pressure control) or thermodynamics (heat energy transfer). Mechanical engineers may specialise in the Building Services or Industrial engineering field.

## MECHATRONICS ENGINEERING

Integrates specialist knowledge in mechanics, electronics and computer systems to design and develop integrated automated systems, such as chassis-stabilising systems, anti-lock brakes, engine control units, disk drives, cameras, service and surgical robots and medical devices. Often these systems are largely mechanical in nature but could not function without their essential electronic and computer control system components.

## MINING ENGINEERING

Mining engineering involves extracting and processing minerals from the earth. This may involve investigations, design, construction and operation of mining, extraction and processing facilities.



## **PETROLEUM ENGINEERING**

Petroleum engineering is a field of engineering relating to oil and gas exploration and production. Petroleum engineers typically combine knowledge of geology and earth sciences with specialised Chemical engineering skills, but may also draw on Mechanical engineering expertise to design extraction and production methods and equipment. Petroleum engineering activities are divided into two broad categories:

**Upstream** – locating oil and gas beneath the earth's surface and then developing methods to bring them out of the ground.

**Downstream** – the design and development of plant and infrastructure for the refinement and distribution of the mixture of oil, gas and water components that are extracted.

## **SOFTWARE ENGINEERING**

Software engineers apply the process of analysing user needs and designing, constructing, and testing end user applications that will satisfy these needs through the use of software programming languages. A fundamental aspect is the application of engineering principals to software development. In contrast to simple programming, software engineering is used for longer and more complex software systems, which are used as critical systems for business and organisations.

## **STRUCTURAL ENGINEERING**

Structural engineering is a specialised field within the broader Civil engineering discipline that is concerned with the design and construction of structures. Structures might include buildings, bridges, in-ground structures, footings, frameworks and space frames, including those for motor vehicles, space vehicles, ships, aeroplanes and cranes, composed of any structural material including composites and novel materials.

## **TRANSPORTATION ENGINEERING**

Transportation engineering is a specialised field of practice in the civil engineering discipline relating to the movement of goods and people by road, water, rail and air.

A transportation engineer might specialise in one or more of: pavement design, asset maintenance/management, construction/project management, traffic operations and control, transportation planning and systems analysis, freight transportation and logistics, road safety, railways or public transport systems.

## **WATER ENGINEERING**

Water engineers specialise in water based projects; many will have a civil engineering or environmental background. Water engineers generally deal with the provision of clean water from sources or treatment plants, return of waste water and treated sewage to the environment and the handling of stormwater including the prevention of flood damage. Asset management may be a major part in a water engineer's job. This involves design, operation, maintenance and construction of infrastructure for water resources as well as planning for the maintenance and replacement of three waters assets to maintain performance and minimise whole of life costs. These can include but are not limited to pipes, treatment devices, pump stations and reservoirs.

# Appendix 4: CV templates

## Template 1



**[FIRSTNAME LASTNAME]**  
**[Current role or area of expertise]**

### Profile

---

Tell us a bit about yourself – your area of expertise and career highlights. This should be around 100 words. Nam et laoreet purus, eu elementum mauris. Suspendisse id ipsum posuere, sollicitudin neque sed, cursus risus. Quisque id metus laoreet, scelerisque lacus ac, dictum neque. Sed egestas vestibulum arcu ac placerat. Proin fringilla lacinia quam, sed elementum orci sollicitudin sit amet. Aliquam suscipit mi in ipsum porttitor maximus. Etiam efficitur eget metus vitae sagittis. Cras eget diam nunc. Nulla ut lectus eget nibh condimentum eleifend euismod vitae lacus. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia curae; Sed ultricies ullamcorper diam, at suscipit sapien venenatis eu.

### Location

---

[City, Country]

### Technical skills

---

- [eg Project management]
- [eg Traffic engineering]
- [insert technical skill]
- [insert technical skill]

### Education

---

[Qualification, Tertiary institution,	Year]
[Qualification, Tertiary institution,	Year]
[Qualification, Tertiary institution,	Year]

### Professional associations

---

[eg New Zealand Chartered Professional Engineer (CPEng)]  
[eg Engineering New Zealand Chartered Member (CMEngNZ)]  
[Transportation Group Member]

### Relevant training

---

- [eg Road Safety Audits]
- [eg Presentation Skills]
- [insert training]
- [insert training]

### Professional experience

---

- **[Project name, duration of involvement, job title]**  
50–70 words describing the project, your involvement and what you brought to the table.
- **[Project name, duration of involvement, job title]**  
50–70 words describing the project, your involvement and what you brought to the table.
- **[Project name, duration of involvement, job title]**  
50–70 words describing the project, your involvement and what you brought to the table.

# Template 2



**[FIRSTNAME LASTNAME]**  
**[Current role or area of expertise]**

## Profile

Tell us a bit about yourself – your area of expertise and career highlights. This should be around 100 words. Nam et laoreet purus, eu elementum mauris. Suspendisse id ipsum posuere, sollicitudin neque sed, cursus risus. Quisque id metus laoreet, scelerisque lacus ac, dictum neque. Sed egestas vestibulum arcu ac placerat. Proin fringilla lacinia quam, sed elementum orci sollicitudin sit amet. Aliquam suscipit mi in ipsum porttitor maximus. Etiam efficitur eget metus vitae sagittis. Cras eget diam nunc. Nulla ut lectus eget nibh condimentum eleifend euismod vitae lacus.

## Key skills

- [eg Project management]
- [eg Traffic engineering]
- [insert skill]
- [insert skill]

## Qualifications & education

[Qualification, Tertiary institution,	Year]
[Qualification, Tertiary institution,	Year]
[Qualification, Tertiary institution,	Year]

## Affiliations

eg Board Member Institute of Directors  
[Affiliation]  
[Affiliation]

## Career path

**[year–present]**  
**[Job title, company name]**  
50–70 words describing the role, your responsibilities and what you brought to the table.

**[year–year]**  
**[Job title, company name]**  
50–70 words describing the role, your responsibilities and what you brought to the table.

**[year–year]**  
**[Job title, company name]**  
50–70 words describing the role, your responsibilities and what you brought to the table..

## Major projects and contracts

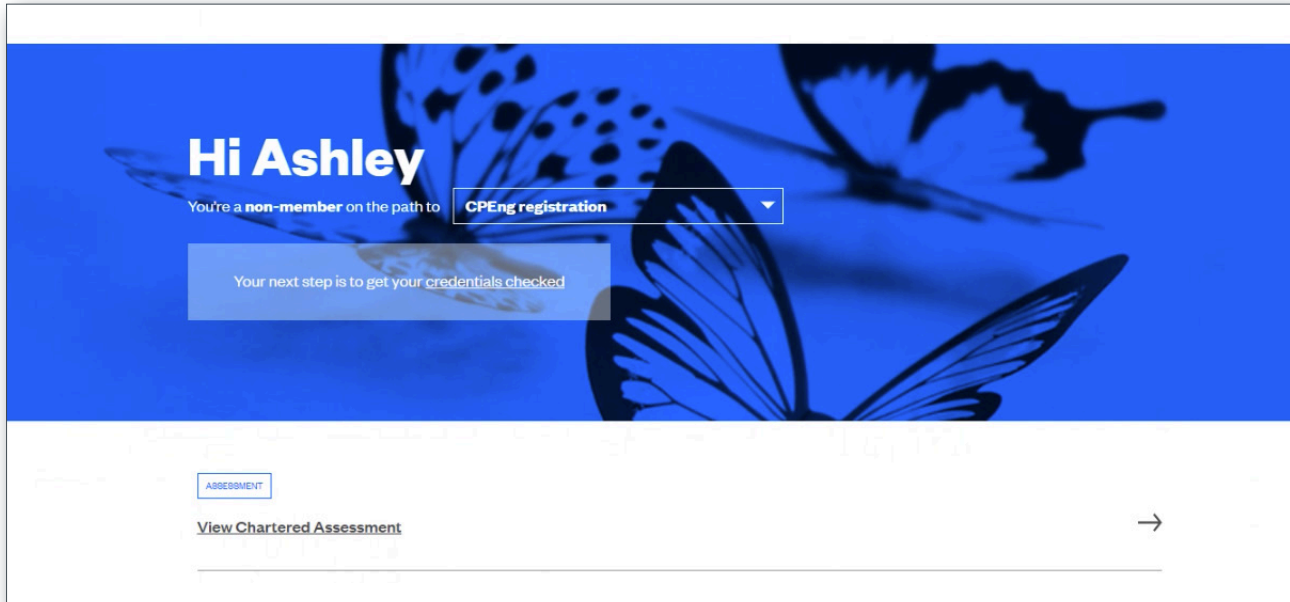
- **[Contract name and brief description 20 words]**
- **[Contract name and brief description 20 words]**
- **[Contract name and brief description 20 words]**

## Relevant governance history

- **[eg Board Member Infrastructure New Zealand (year–year)]**

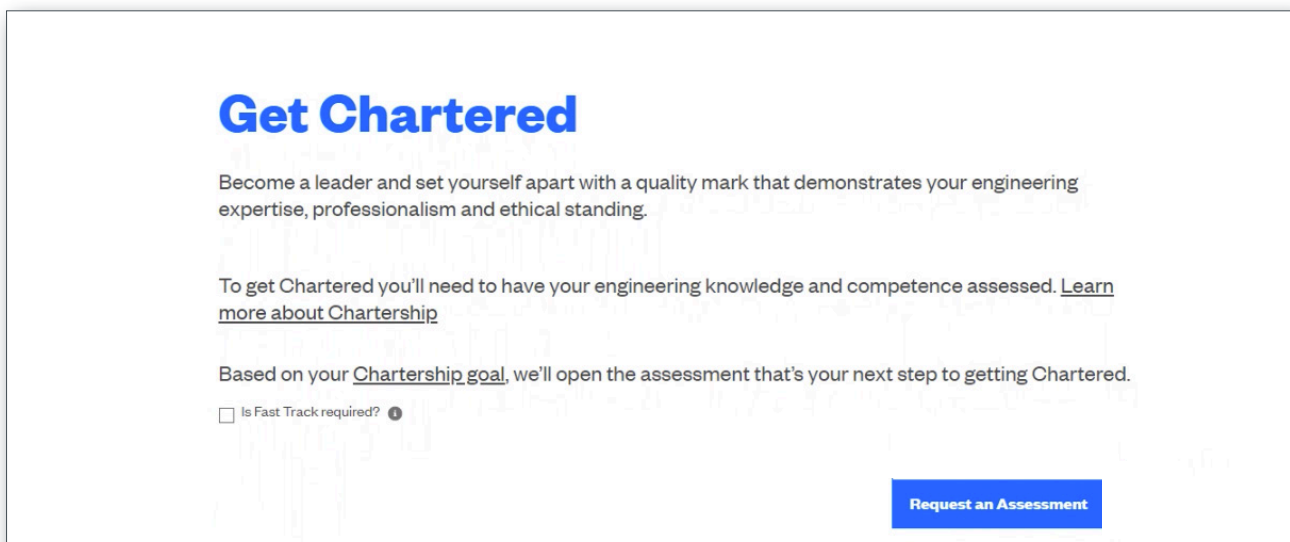
## Appendix 5: Online application form

The system automatically detects your current status with Engineering New Zealand. It states which application you are eligible to complete.



The screenshot shows a user interface for Ashley. At the top, it says "Hi Ashley". Below this, it states "You're a **non-member** on the path to **CPEng registration**" with a dropdown arrow. A light blue box contains the text "Your next step is to get your **credentials checked**". At the bottom, there is a button labeled "ASSESSMENT" and a link "View Chartered Assessment" with a right-pointing arrow.

Click 'Request an assessment'. The assessment team will then open an assessment for you and an automated email will be sent with a link to get started



The screenshot shows a page titled "Get Chartered" in large blue font. Below the title, it says "Become a leader and set yourself apart with a quality mark that demonstrates your engineering expertise, professionalism and ethical standing." The next paragraph states "To get Chartered you'll need to have your engineering knowledge and competence assessed. [Learn more about Chartership](#)". The following paragraph says "Based on your [Chartership goal](#), we'll open the assessment that's your next step to getting Chartered." There is a checkbox labeled "Is Fast Track required?" with a help icon. At the bottom right, there is a blue button labeled "Request an Assessment".

Work your way through each section individually. You will be unable to submit your application until all sections are completed.

## Chartered Assessment

You're on the way to getting Chartered! Complete each section before submitting to our team.

[Check out our assessment guidance.](#)

[Download PDF copy](#)

### Profile →

Check your personal details and contact information.



### Chartership and practice details →

Choose the membership/registrations and engineering practice you want to be assessed for.



### Panel location →

Identify which panel location you want to be assessed for.



### CV →

Upload your CV.



### Referees →

Enter the details of two referees. This section will be complete when we have heard back from your referees.



### Professional development →

Confirm you have CPD records for the past six years (or since your graduation), or add more.



### Self-assessment →

Show how you meet the areas of competency.



## Profile

Check your personal details and contact information. Make any changes before submitting your assessment application.

**First name**

Ashley

**Last name**

Bloomfield

**Preferred name**

**Customer number**

2002260

**Title**

**Employer**

**Role**

**Email**

ipenzcmsuat+ashleyb@gmail.com

**Mobile**

021345456

**Other phone**

## Chartership and practice details

Tell us the membership/registrations and engineering practice you want to be assessed for.

**Membership/registrations**

Choose the membership and registers you are applying for.

Add each membership or registration one at a time. Your selection will show in the table below.

Membership/registration	Actions
You haven't selected a membership or any registers yet.	
<a href="#">Add membership/registration</a>	

## Choose membership and registrations

Choose the membership and registers you are applying for. Add each membership or registration one at a time.

**\*Membership/registrations**

Select

- Chartered Member
- Chartered Professional Engineer
- International Professional Engineer / APEC Engineer
- Design Verifier (Passenger Ropeways)
- Design Verifier (Cranes)
- Design Verifier (Pressure Equipment)

Select your practice field(s). There is no limit on how many you can select. You will also need to add your Practice Area Description (PAD). This should consist of no more than 15 words.

**Practice field**

Describe the area you have engineering knowledge and skills in. Focus on your core current practice area.

Use the format: [Nature or actions] of/for/in [engineering knowledge or skills]. A few successful examples are:

- Design and investigation of low-rise buildings.
- Design and construction monitoring of water and wastewater systems.
- Design of machines, load carrying and lifting equipment.

Note: Practice area is not a full scope of your engineering practice or competence. You can practice in other areas or fields of engineering if you are undertaking work that you can complete successfully within your competence, as governed through self-regulation and your annual commitment to the Code of Ethical Conduct.

Salesforce Sans ▼ 12 ▼

B I U

---

**Applicant practice field**

<input type="checkbox"/> Aerospace engineering	<input type="checkbox"/> Bio engineering	<input type="checkbox"/> Building services
<input type="checkbox"/> Chemical engineering	<input type="checkbox"/> Civil engineering	<input type="checkbox"/> Electrical engineering
<input type="checkbox"/> Engineering academic	<input type="checkbox"/> Engineering management	<input type="checkbox"/> Environmental engineering
<input type="checkbox"/> Fire engineering	<input type="checkbox"/> Geotechnical engineering	<input type="checkbox"/> Industrial engineering
<input type="checkbox"/> Information engineering	<input type="checkbox"/> Mechanical engineering	<input type="checkbox"/> Mechatronics engineering
<input type="checkbox"/> Mining engineering	<input type="checkbox"/> Petroleum engineering	<input type="checkbox"/> Software engineering
<input type="checkbox"/> Structural engineering	<input type="checkbox"/> Transportation engineering	<input type="checkbox"/> Water engineering

## Panel location

You may need to meet with your assessment panel to discuss your application. Select the location that is most convenient for you.

A screenshot of a web application's 'Panel location' dropdown menu. The menu is open, showing a list of options: '--None--', '✓ --None--', 'Wellington', 'Auckland', 'Christchurch', and 'No preference'. A mouse cursor is pointing at the 'Wellington' option. The 'Wellington' option is highlighted with a light blue background. The 'No preference' option is at the bottom of the list.

Your CV needs to be PDF format. You should also upload your completed self-assessment form in this area.

## CV

Upload a current version of your CV that includes your work roles, responsibilities, career progression and projects.

 CV (0)

 Upload files

 Prev

 Next

Title	Last modified	Size
-------	---------------	------

Page 1 of 1

[Back](#)

Nominate two referees are familiar with your technical and professional capabilities. Refer to the referee guidelines for more information.

## Referees

Enter the details of your referees so we can get in touch with them to provide their recommendation. Your referees need to be current Chartered Members or Fellows of Engineering New Zealand (CMEngNZ or FEngNZ), Chartered Professional Engineers (CPEng), or equivalent.

2 complete references will be required before you can submit an application.

Name	Relationship	Email	Phone	Engineering status	Reference progress	Actions
------	--------------	-------	-------	--------------------	--------------------	---------

You haven't added any referee records.

[Add referee](#)

[Back](#)



# Add referee

\*Name

\*Relationship

\*Email

\*Phone

Engineering status

Cancel

Back to assessments

Save and invite

Once you click 'Save and invite', your referee will receive the email below. Please ask them to check their Junk folder.



Kia ora,

You were recently asked to be a referee for the assessment of Enid Rainbow. This assessment looks at their competence to become Chartered as an engineer.

To be a referee, you'll need to complete a recommendation. We haven't heard from you yet and their application can't be progressed until you complete your recommendation.

If you're unable to be their referee, please let us know by declining the request.

[Review request](#)

Engineering New Zealand

You referee will need to click 'Review request' in the email sent. They will then be directed to this screen where they will need to accept or decline the invitation to act as your referee:

## Reply to referee request

Let the applicant know if you'll be a referee for their Chartership assessment by accepting or declining this invitation.

**Applicant**

Ashley Bloomfield

**Assessment Type**

Chartered Assessment

**Referee Name**

Bel Perez

**\* Accept invitation?**

☐ Accept

☐ Decline

Next

If they click 'accept', referees will be directed to the page below:

## Complete reference

Tell us what you know about the engineering capability of the applicant and their suitability to be Chartered.

Please provide details of your relationship to the applicant. Please also confirm that you can provide a reference based on an understanding of the applicant's work within their practice area. If you are not able to provide a technical reference in the practice field of the applicant, please decline this request for a reference.

Salesforce Sans 12

B I L U S T W P H M Y E X

Please comment on the technical engineering competence (specifically in analysis and design/problem solving) of the applicant to practice within their practice area. Do you consider the engineer to be competent in the engineering work that they do? Do you think they demonstrate knowledge and application of current practice in their field and an ability to develop safe and effective engineering solutions? Why or why not?

Salesforce Sans 12

B I L U S T W P H M Y E X

What aspects of professionalism do you believe the applicant brings to their work? Please include detail of their relationships with stakeholders, compliance with legislation, and health and safety compliance, where appropriate. Is there anything about the practice of the applicant that would raise a potential concern? Do you support their registration as a Chartered Professional Engineer?

Salesforce Sans 12

B I L U S T W P H M Y E X

Cancel

Submit

When a referee completes their response and clicks 'submit', you will receive an email notifying you of this. It is up to you to follow up with your referees. You won't be able to submit your application until both of them have submitted their responses.

The next section of the application requires you to confirm you have provided CPD records for each of the past 6 years.

## Professional development

As part of this assessment, you need to have recorded a minimum of 40 hours of continuing professional development (CPD) every year for the past six years (or since your graduation), to keep your knowledge and skills up to date.

[Track this in your CPD records](#)

☒ I confirm I have provided CPD records for each of the past six years (or since my graduation).

[Back](#)

[Update](#)

You can have a look at the CPD records you have already saved to your profile, and can also download a CPD report which will provide you with a summary of the hours you have completed each year.

### CPD records

Select an Option ▾

Activity name	Activity type	Start date ↓	Hours	Actions
Mamoon Jamil TEST	Other	1/06/2020	1.5	<a href="#">View/Edit</a>
rrrt	On the job development	1/06/2020	1.5	<a href="#">View/Edit</a>
Test to see if saves	On the job development	7/10/2019	1.6	<a href="#">View/Edit</a>
EG magazine	Self-directed learning	4/09/2019	1.0	<a href="#">View/Edit</a>
Test	Conference	6/08/2019	4.0	<a href="#">View/Edit</a>

▼ See more

[Download CPD report](#)

The report gives you a summary with the information shown below. If you haven't added enough CPD, you can add or amend your records.

Engineering New Zealand

institute of Engineering Professionals


info@engineeringnz.org

www.engineeringnz.org

PO Box 12 241

Wellington 6144

04 477 5544



### CPD RECORDS – LAST 6 YEARS

**Applicant:** Andrew Duckenfield  
**Customer Number:** 1026424  
**Date:** 28/06/2022

**Summary**

Year	Hours
2022	25.5
2021	46.5
2020	43.1
2019	40.0
2018	46.0
2017	46.0

**2022**

**Professional event**

Activity	Provider	Start date	End date	Hours
test		01/01/2022	01/06/2022	25

**2021**

**Course**

Activity	Provider	Start date	End date	Hours
Found and Remedial Design Society of New Zealand 2021		11/01/2021	11/01/2021	0.5

**Various (Self-assessment)**

Activity	Provider	Start date	End date	Hours
----------	----------	------------	----------	-------

You will need the following information to add new CPD records.

## Add CPD record

Enter your CPD record details and select 'add record'. Then you will be able to upload your CPD files. [How to record your CPD.](#)

\* Activity name

\* Activity type 

--None--



CPD provider 

\* Start date

End date

\* Hours

Activity description & learning outcomes 

Salesforce Sans

12

B I U                                           

Cancel

Add record

Once you've completed the CPD section, select the 'tick box' confirming you've provided your records, and click 'update'.

## Professional development

As part of this assessment, you need to have recorded a minimum of 40 hours of continuing professional development (CPD) every year for the past six years (or since your graduation), to keep your knowledge and skills up to date.

[Track this in your CPD records](#)

☒ I confirm I have provided CPD records for each of the past six years (or since my graduation).

Back

Update

Explain how you meet each competency standard in your self-assessment.

## Self-assessment

Complete your self-assessment on how you meet the competency standard. Each answer should be around 500 words.

[Check out our assessment guidance.](#)

Group	Progress	Actions
Engineering Knowledge Question	0%	<a href="#">View/Edit</a>
Managing Engineering work Question	0%	<a href="#">View/Edit</a>
Professional Acumen Question	0%	<a href="#">View/Edit</a>
Developing Technical Solutions Question	0%	<a href="#">View/Edit</a>

[Back](#)

In this section, you'll be required to add work records with supporting evidence. Attachments can be work plans, photos etc. Select the 'Add evidence' button to add a new record.

## Evidence

Attach evidence which supports your responses in the self-assessment and reflects your practice area description.

Discuss which of the following groups your evidence is supporting and how this shows your competence as a Professional Engineer:

- Design/develop technical solutions. For this group you need to show evidence of complex engineering problems.
- Manage engineering work including how safety, sustainability and quality contribute to the final outcome. For this group you need to show evidence of complex engineering activities.
- Describe how you applied your engineering knowledge, eg engineering principles, local codes, standards or regulations, new knowledge, practices or technologies.
- Professional acumen that include dealing with an ethical dilemma, understanding and working within the limits of your competence, taking into account social, cultural or environmental factors, and communicating effectively with others.

Please note: It is important to guide the assessors where to find evidence of this information in your attached files. This could be page numbers, sections or particular file names."

### Evidence records

Activity name	Record type	Progress	Actions
tfstfrc	Work Records	0%	<a href="#">View/Edit</a>
Examples	Work Records	0%	<a href="#">View/Edit</a>
drfstafgrfy	Work Records	0%	<a href="#">View/Edit</a>
Transmission Gully - Landscaping Design Updates	Work Records	0%	<a href="#">View/Edit</a>

[Add Evidence](#)

[Back](#)

Enter your work record details and select 'add record'. Then you will be able to upload your work files.

Enter your work record details and select 'add record'. Then you will be able to upload your work files.

• **Activity name**

\_\_\_\_\_

Activity / project description ①

[illegible]

\*Organisation ③

\_\_\_\_\_



\_\_\_\_\_

### Rule description

A screenshot of the Salesforce navigation bar. It features a 'Salesforce Home' dropdown menu and a '12' dropdown menu. Below these are several icons for navigation, including a home icon, a search icon, a list icon, a calendar icon, a mail icon, a settings icon, and a user profile icon.

• **Start date**

\_\_\_\_\_

End date

Downloaded from <http://ajph.org/> on November 10, 2014

Cancel

[Add record](#)

Once you've added your work records, select 4–6 work samples to submit with your application.  
View or edit your work record to add a sentence describing how this relates to the competence standards

Attach evidence or add a new record which supports your responses in the self-assessment and is within your practice area.

Attach evidence or add a new record which supports your responses in the self-assessment and is within your practice area.

**Add work record**

## Select an Option ▼

Activity name	Role	Organisation	Start date ↓	Actions
Test	test	test	18/07/2022	<a href="#">View/Edit</a> <button>Select</button>
TEst	Test	Beca Limited	3/05/2022	<a href="#">View/Edit</a> <button>Select</button>
fdfdf	gfdgfg	Engenium Ltd	12/10/2021	<a href="#">View/Edit</a> <button>Select</button>
Examples	Example	Example	16/08/2021	<a href="#">View/Edit</a> <button>Select</button>
dsfdsfgnfg	gdfgdfgdfg	gfsfdgsfds	12/04/2021	<a href="#">View/Edit</a> <button>Select</button>

See more

Activity name  
Futball

Activity / project description

Organisation  
Engelhorn Ltd

2018

Rule descriptions  
010010101010101

Start date  
12/10/2023

End date  
21/03/2021

### Evidence statement

Baseforce Date

12

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

events

[Back](#)

## Reference

Update

Evidence files (2)			Upload files	Prev	Next
Title	Last modified	Size			
lets_get_yrs_Chartmed_Assessor_Guidance_NG1...	28/05/2022, 04:42 pm	—			

Page 1 of 1

Panel location

+

Identify which participation you want to be awarded the

100% complete

DOI: 10.1002/anie.200700000

CV

+

Upload your CV



100% complete

### WSPN, example 2

Fluorides:

+

Enter the details of two references. This section will be complete when we have heard back from your referees.

100% complete

### 5.2.2.2. *Example 2*

Professional development

→

Confirm you have OPE records for the past six years (or since your graduation), or add more.

100% *composita*

[More information...](#)

### Self-assessment

+

Share how you meet the areas of competency

© 2013 Blackwell Publishing Ltd

**Webb, Christopher**

### Evidence

†

Attach work evidence which backs up the answers to your self assessment.

100% complete

800% simplification

## Example

Endreuer

You'll be asked to confirm your commitment to professionalism, complete the declarations and confirm your billing details.

## Your commitment to professionalism

At Engineering New Zealand we believe behaving professionally and keeping current are critical to maintaining high standards and protecting your credibility. Please make sure you read, understand and agree with the following:

As a member of Engineering New Zealand, I will honour the [Rules and Regulations](#), follow the [Code of Ethical Conduct](#) and undertake [professional development](#) each year.

As a Chartered Professional Engineer, I will honour the [CPEng Rules](#), and agree for my name to be published on the Engineering New Zealand website for up to 21 days, allowing the public to provide evidence on whether I meet the minimum required standard.

I confirm all information in my application is true and accurate.

Engineering New Zealand is subject to the Privacy Act. We'll only collect, use, store your information for a purpose connected to one of our functions as a professional body and regulatory authority. We may contact you using the information you provide us but you can unsubscribe to our communications at any time.

☐ Confirm

[Back](#)

[Continue](#)

## Declarations

### Declare any criminal convictions

Have you been convicted of any offence where the offence was punishable by imprisonment of six months or more?

(Having convictions won't necessarily impact your assessment but you need to tell us about them. We need to know about offences which are punishable by a term of imprisonment of six months or more, whether or not you actually received such a penalty. If you're not sure, declare it below.)

\*

☐ Yes

☐ No

### Declare any disciplinary proceedings

Are you currently or have you ever been the subject of any complaints to or disciplinary proceedings by Engineering New Zealand?

(This won't necessarily impact your assessment but you should tell us about it, even if the matter was dismissed. If you're not sure, declare it below.)

\*

☐ Yes

☐ No

### Declare any declined applications

Have you ever had an application to be a Chartered Professional Engineer declined at any stage in the process?

(This won't necessarily impact your assessment but you should tell us about it.)

\*

☐ Yes

☐ No

[Next](#)



## Confirm billing details

Check your billing address is correct and add a purchase order number. If your employer is paying include their name in the 'billing street' field.

PO number (optional)

\*Billing Street

\*Billing city

Billing state/province

\*Billing zip/postal code

\*Billing country

Next

Once you've paid, you should receive an automated email to confirm receipt of your application and what to expect next.

## Ways to pay

Pay today by credit card and we'll email you a receipt. Or choose to pay by invoice and we'll email it to you.

\*I want to pay by

☐ Credit card

☐ Invoice

Continue

# Frequently asked questions

## What does my application status mean?

---

- » **Started:** you're compiling your assessment application
- » **Payment pending:** awaiting payment by credit card or invoice
- » **Submitted:** with our team for checking and validation (2–3 weeks)
- » **Editing:** additional information required before being passed to an assessment panel (it is in your best interests to submit the required information within 2 weeks, to avoid any delays in the process).
- » **Assessors being assigned:** we're finding your assessment panel (2–6 weeks)
- » **Assessment in progress:** your assessment is being reviewed by the panel (6–8 weeks)
- » **Pending Board:** waiting for a Competency Assessment Board to be available (the CAB meet once a month)
- » **Board assigned:** Competency Assessment Board has been assigned
- » **Complete:** outcome of assessment finalised and shared with you
- » **Withdrawn:** application has been withdrawn

## What is occupational regulation?

---

In March 2022, Cabinet agreed to proceed with MBIE's proposals for occupational regulation. These proposals include:

- » Mandatory registration for all engineers with a four-year Washington Accord degree
- » Compulsory licensing for engineers working in high-risk disciplines
- » Protection of title for registered engineers and licensed engineers
- » Repealing the CPEng system and the CPEng Act 2002, and tougher penalties.

Full implementation is likely to take until the end of the decade. In the interim, we need to ensure the current CPEng system is appropriately addressing risk, and that we are best situated to support the coming transition.

## What is the CPEng Review Project?

---

The development of an updated, credible and fit-for-purpose Chartered Professional Engineers model that appropriately assesses the technical competence and professionalism of Chartered Professional Engineers and holds these engineers to account, where required.

- » We are making changes to strengthen the CPEng system through consistency of administration. We are doing this so that stakeholders have increased confidence in the system and the public have increased trust in work done by CPEng engineers. We are also doing this to support the coming transition to a new occupational regulation system.
- » We have already delivered a fully operational, separate Chartered Professional Engineers Board. That new Board took effect as of 1 January 2022. This will help address the conflict of interest between Engineering New Zealand as a membership organisation and registration authority.
- » We are working on a new operations manual for the Registration Authority's assessment and reassessment processes, with the required supporting procedures. This will conclude in 2023.

## I can't attach any documents because my work is highly confidential/ the property of my employer. What should I do?

---

We take confidentiality seriously and have put processes in place to protect your application.

- » Engineering New Zealand assessors sign a confidentiality agreement prohibiting them from disclosing any aspect of your assessment to anyone except the relevant Practice Area Assessors, Knowledge Assessors, Competency Assessment Board members or Engineering New Zealand staff.
- » We accept Work Record files that have been redacted to protect confidential information.
- » You'll be given the opportunity to review who we've assigned to your assessment panel. If you have any concerns, we'll be happy to assign an alternative panel member.

## What if I don't have any files to attach to my work records?

---

Because our competence assessments are evidence-based, you need to provide files as evidence of your experience. Email correspondence can be used as evidence.

## How many evidence files can I attach?

---

Our general guidance is quality over quantity. One to four files are usually enough to provide sufficient evidence of your work. Give your assessors only the relevant information and be specific about where your evidence is in the Work Record files. For example, specify page numbers, sections, calculations, photograph titles, chart details etc.

## How much does assessment, membership and registration cost?

---

You can find the latest prices on the Engineering New Zealand website. There's a one-time charge for Chartered assessments and knowledge assessments. The fee for CPEng reassessment is included in your annual registration fee.

## If I'm successful, when will my name appear on the 'find an engineer' search online?

---

Your name will be added to the relevant register as soon as possible after the Competency Assessment Board has approved your application.

## I don't have two referees that meet the criteria. Can I still apply?

---

Your referees need to be current Chartered Members or Fellows or Engineering New Zealand (CMEngNZ or FEngNZ), Chartered Professional Engineers (CPEng), or equivalent. If you're struggling to find referees, try attending Engineering New Zealand events and branch meetings and start networking now.

## What's the difference between Chartered Membership and Chartered Professional Engineer registration (CPEng)?

---

Chartered Members belong to Engineering New Zealand and get all the perks of being part of our community. CPEng is different from membership and is a registration under the CPEng Act 2002.

CPEng is only open to professional engineers, who must demonstrate an ability to deal with complex engineering problems and activities. Chartered Membership is also available to professional engineers, but additional categories provide recognition for engineering technologists, engineering technicians and engineering geologists.

Both require a similar assessment. The competence standard for both are effectively the same, but CPEng registration requires evidence of New Zealand-specific good practice and reassessment at least once every six years. This makes Chartered Membership more accessible for engineers practising overseas, and provides direct entry for engineers who have been assessed in an equivalent overseas jurisdiction, eg CEng (UK) or CPEng (Australia). Chartered Membership isn't reassessed because you'll be doing ongoing professional development to stay current.

Both CPEng and Chartered Membership are underpinned by the same Code of Ethical Conduct and a fair, robust and proportionate complaints and disciplinary process.

# Common terms

**Assessment criteria:** the standard we use to assess engineers on their competence.

**Assessment panel:** usually made up of a Lead Assessor and a Practice Area Assessor, the panel evaluates reviews your assessment application, before providing recommendations to the Competency Assessment Board.

**Chartered assessment:** evaluates if you meet the competence standard to become Chartered, either as a Chartered Member (CMEngNZ) of Engineering New Zealand or a Chartered Professional Engineer (CPEng).

**Chartered Membership:** the Engineering New Zealand class of membership for engineering professionals who have demonstrated their engineering competence to an internationally-recognised benchmark.

**Chartered Member CMEngNZ:** solves complex engineering problems and activities by applying specialist engineering knowledge and first principles to their work.

**Chartered Member CMEngNZ (Engineering Technologist):** solves broadly-defined engineering problems and activities by applying knowledge of engineering principles.

**Chartered Member CMEngNZ (Engineering Technician):** solves well-defined engineering problems and activities through knowledge and use of established analytical techniques and procedures.

**Chartered Member CMEngNZ (PEngGeol):** solves complex engineering geological problems and activities by applying in-depth engineering geology knowledge.

**Chartered Professional Engineer (CPEng):** solves complex engineering problems and activities, which requires applying specialist engineering knowledge and first principles to their work.

**Competence Assessment Advisor:** a member of the Engineering New Zealand team assigned to your application and your main point of contact once you submit your application for validation.

**Competency Assessment Board (CAB):** the group of senior engineers that accepts or rejects recommendations made by the assessment panel.

**Complexity:** one of the key ways we differentiate between the competence registers.

**CPD record:** information about the continuing professional development activities you've done to maintain currency as an engineer.

**CPEng reassessment:** evaluates if you have maintained current competence to meet the Chartered Professional Engineer standard.

**Dublin Accord:** the agreement for the international recognition of Engineering Technician qualifications.

**Educational accord:** an agreement that benchmarks educational standards. If you hold an Accord- accredited qualification, you'll benefit from mutual recognition of your qualification between signatory countries.

**Engineering Geologist:** deals with complex engineering geological problems and activities requiring specialist and in-depth geological engineering knowledge.

**Engineering Professional:** deals with complex engineering problems and activities requiring the application of specialist engineering knowledge and work from first principles.

**Engineering Technologist:** deals with broadly-defined engineering problems and activities that require knowledge and use of principles and applied procedures.

**Engineering Technician:** deals with well-defined engineering problems and activities requiring knowledge and use of established analytical techniques and procedures.

**Knowledge assessment:** evaluates if you have gained an appropriate level of technical knowledge and understanding through your work or study to practice at the level of a professional engineer.

**Lead Assessor:** Chartered Engineer in charge of managing the assessment process.

**Practice area:** a combination of the area in which you hold specialised engineering knowledge and the nature of the activities you perform. These may change over the course of your career but your competence will be assessed for your current area of engineering practice.

**Practice Area Assessor:** the volunteer technical expert on your assessment panel who has knowledge in an area of engineering relevant to your own practice area/field.

**Practice field:** indicates the nature of your engineering work.

**Recognised external authorities:** overseas engineering registration authorities that are signatories

**Sydney Accord:** the agreement for the international recognition of Engineering Technologist qualifications.

**Sample evidence:** documents you include in your Work Record to provide evidence of your personal involvement in a project or activity.

**Washington Accord:** the agreement for the international recognition of engineering qualifications.

**Work record:** information about the projects or activities you've carried out in your engineering work, used in competence assessments to demonstrate the practical application of your engineering knowledge and skills.



**REGISTRATION  
AUTHORITY**  
FOR CHARTERED PROFESSIONAL ENGINEERS



**engineering  
new zealand**  
te ao rangahau

L6, 40 Taranaki St  
Wellington 6011  
[assessment@engineeringnz.org](mailto:assessment@engineeringnz.org)  
[www.engineeringnz.org](http://www.engineeringnz.org)

The Registration Authority under the Chartered Professional Engineers of New Zealand Act 2002 is the Institution of Professional Engineers New Zealand (trading as Engineering New Zealand).