

A Route to become a Professional Civil Engineer

Advice for Preparation and Key to Success on Professional Assessment

by Ir Victor KY LO Civil Discipline Advisory Panel Chairman 23 May 2019 The Hong Kong Institution of Engineers ① 香 港 工 程 師 學

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Routes for Application

Normal Routes

- General Experience Route
- Formal Training (Scheme A) Route

Special Routes

- Mature Route
- Research and Development Route
- Special Route (RRA e.g. ICE, IEAust, etc.)

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Competent Based Assessment

Provide a better guidance to applicants on the outcome standards (competent based standards) required and the assessors could find it easier in assessing the applicant's experience in terms of relatively more objective and distinct requirements

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Matching of Assessor with the Candidate

CVL Discipline

Applicants of CVL Discipline shall indicate two technical expertise areas of work in below:

- Geotechnics
 Power stations
 Hydrology
 Harbours & docks
 Seismic engineering
 Concrete structures
 Steel structures
- Foundations

- Off-shore engineering
 General municipal
 engineering
 Bridges
 Transportation
 Gas Transmission
 Highways
 Tunneling
 Railways
- Land drainage
- □ Water Supply
- □ Airports

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- Land reclamation
- Dams/reservoirs
- Sewerage & disposal
- Others (Please specify)

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Submissions Presentation & Interview Essay

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Submissions Presentation & Interview Writing Assessment

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Documentation required from the Candidates

- 1. Report on Training and Experience (1,600 2,000 words)
- 2. Project Report (4,000 words)
- 3. Proof of the required number of CPD days
- 4. Scheme "A" Logbook or ICE Training Record, if applicable

Information on Route to Membership M3 Routes to Membership

Information on Admission to Specific Discipline M30675 Guidance Notes for Professional Assessment - Civil Discipline Source : https://www.hkie.org.hk/en/membership/download_mem2/

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Report on Training and Experience (I) : The report must not be a mere inventory of work prepared and executed. Candidates should:

(a) describe in chronological order the tasks in which they have been employed, state the precise position they have occupied in each case and describe clearly the degree of responsibility they have been assigned;

(b) use the first person (I, me, my) to show their personal contribution;

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Report on Training and Experience (II):

(d) elaborate on any particular problems they have encountered and how they arrived at viable solutions;

(e) provide evidence to demonstrate that the competences set out in the HKIE Competence Standards for Professional Engineers (Corporate Members) are achieved by adding notations in the right margin for the competences (C1, C2...etc.) next to the passage of text. At most four relevant competences should be quoted at a time.

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Report on Training and Experience (III):

My Scope of Work and Responsibilities

(Majorly practiced in Attribute 1 - Knowledge and Understanding of Engineering)

I served in the project team to draft method statement, report progress, assist compiling programme and look after quality assurance issues of concrete and rebar. I applied the theoretical knowledge into the engineering practice and explored the evidence-based approach to solve problems of bored pile construction (elaborated in *Project Report*), such as overcoming adverse topographical conditions to facilitate bored pile BP2 construction.

Attribute 1A,B

Attribute 2C,D

Apart from applying traditional technology, I also developed my skills in exploiting advancing construction technologies to promote continuous improvement in engineering works. For instance, I got involved in the demolition works on the existing bored pile wall to form opening. To propose a most environmentally friendly construction method, I evaluated several methods and finally confirmed to use saw cutting method with upgraded dust depression devices.

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Project Report (I) : 4,000 word Project Report which may include up to 4 supporting drawings, calculations, quantities, etc.

The Report is to demonstrate the candidate's technical and professional competence. The report should describe a project or parts of a project on which the candidate has been employed in a major role during the period of post-graduate training and practical experience.

The report should include examples of work, together with sufficient supporting documents to demonstrate the candidate's competence, involvement and appreciation of the whole spectrum of the development of a project.
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Project Report (II):

The candidate should describe the role he played in the development of the project and should indicate the background to any important decisions for which he was responsible.

The report should consider commercial, statutory, safety and environmental considerations. The report should also include numerical analyses, drawings, sketches, and/or other illustrations appropriate. Cost data should be included to demonstrate the candidate's understanding of the financial implications of the decisions taken.

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Individual Competence Requirements

The following competence standard sets the standard expected for engineers seeking professional recognition as Corporate Members by undertaking a competence-based assessment administered by the HKIE. The twelve competences are categorised into four broad areas as follows:

- Applying Engineering Knowledge (C1, C2, C11)
- Developing Technical Solutions (C3, C4)
- Managing Engineering Work (C5, C6, C7, C12)
- Upkeeping Professional Acumen (C8, C9, C10)

Supplementary Information / Document Resubmission

The PA Assessor may ask the Candidate to submit supplementary information (samples of recent works, e.g. drawings, calculations, etc.) within 4 weeks

The PA Assessor may determine to ask for resubmission, through the HKIE Secretariat, including the Report submitted for Mature Route by the Candidate

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Submissions Presentation & Interview Essay

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Professional Assessment Interview (I)

Presentation & Interview : Seeking to confirm the evidence of competence

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Interview

Candidates have to provide evidence to demonstrate that the competences expected Applying C1, C2, C11 are met C5, C6, C7, C12 C3, C4 C8, C9, C10

Candidates will be required to give a 15-minute presentation of their project submitted for Professional Assessment before the interview

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Professional Assessment Interview (I)

Pre-interview Project Presentation

Prior to the interview, Candidates will be allowed 15 minutes to make a presentation of their Project Report.

The purpose of this part is to assess the Candidate's presentation skills.

Allow to use the drawings or photographs but no other visual aids

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Professional Assessment Interview (II)

An interview will follow which will allow the candidates to demonstrate that all the competences set out in the HKIE Competence Standards for Professional Engineeers (Corporate Members) are achieved so as to satisfy a recommendation for election to Membership. The interview will last for about 45 minutes

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Professional Assessment Interview (III)

The candidate is expected to

- Demonstrate spending sufficient time on suitable work
- Ascertain how far they have taken advantage of opportunities provided during their training and work
- Have self-reflection on the training and work experience

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- Ensure all the competences are achieved



Documentation Presentation & Interview Essay

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Essay (I) :

The Objectives are to assess the candidate's :
written communications (both general English and technical) skills
ability to communicate effectively with others in the course of engineering activities

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Essay (II) :

TWO engineering topics will be given.
The candidate should choose ONE of them and complete the task in TWO hours.
The essay should be approximately 1,600 words. An essay of less than 1,000 words is not likely to pass.

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Essay (III) :

The essay topics will be set individually to match the candidate's experience. It may include one on the role of "The Civil Engineer in the Community".

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Essay (IV) : General English Communication Skills

- Are the candidate's ideas expressed logically?
- Does the text have a discernible and satisfactory framework or pattern?
- Is the candidate's argument clear and easy to understand
- Are paragraph divisions and sub-headings sensibly chose
- Are the sentences easy to understand?
- Has the candidate avoided jargon, catchphrases and undefined abbreviations? (Abbreviations should be accompanied by full spelling when first used).

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– Are spelling and punctuation correct?

Essay (V) : Technical Communication Skills

- Does the candidate understand the subject?
- Does the answer cover the essences of the topic set or only a part of it?
- Has the candidate refrained from padding the text with irrelevant and repetitive material to achieve the desired length?

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Reading Materials For Membership :



ETHICS IN PRACTICE

A Practical Guide for Professional Engineers

ETHICS in Practice :

First published in 2000 Updated in 2011

HKIE Rules of Conducts

A Practice Guide for Professional Engineers

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Important Dates of Professional Assessment 2019 :

Date

28 June 2019
August 2019
30 August 2019
Mid-October 2019
October – November 2019
April 2020

Details

Application deadline Acknowledgement of application by email Submission deadline Notification of Assessors' details by post **Professional Assessment to be conducted** Release of Professional Assessment result by post

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Enquiry:

HKIE Membership Section (2895 4446 / 2890 2926)

Professional Assessment Coordinator (Civil) - Ir David LAU (david.lau@chunwo.com) or

- Ir S S KONG (sskong.hkie@gmail.com)

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