

Guidance Notes for Candidates applying for Membership in Structural Discipline by taking the HKIE Structural Examination

(Candidates must read this leaflet in conjunction with M3 Routes to Membership)

Please read the following notes carefully and comply with all requirements.

1. Introduction

The HKIE Structural Examination consists of TWO parts:

- (i) Written Examination; and
- (ii) Interview.

Candidates applying via any route must pass both parts and meet the experience requirements under the relevant routes to membership in order to be eligible to become a Corporate Member of the HKIE in the Structural Discipline (subject to meeting other requirements in the HKIE Constitution). Passing the Written Examination is not a pre-requisite for taking the Interview or vice versa.

2. Requirements for taking the HKIE Structural Examination¹

To be eligible for taking the HKIE Structural Examination, candidates must apply via one of the routes below and satisfy the following requirements:-

Formal Training Route

- (i) Candidates must possess an accredited/recognised engineering degree² or equivalent relevant to the Structural Discipline.
- (ii) Candidates must be undergoing or have completed Scheme “A” Training in Civil/Structural Discipline or equivalent (e.g. a completion of IPD plus being invited to attend an interview from IStructE) with at least two years post-graduation relevant experience by **31 October 2019**.

General Experience Route

- (i) Candidates must possess an accredited/recognised engineering degree² or equivalent relevant to the Structural Discipline.

¹ Effective from Session 2021/2022, the following changes related to the eligibility for the HKIE Structural Examination will be implemented:

- (a) An additional year of experience from candidates of all routes is required.
- (b) The Formal Training Route is only available to candidates with HKIE Scheme “A” training.
- (c) Candidates with Scheme “A” training in Civil Engineering Discipline are required to possess 1.5 years of structural design experience.

For details, please refer to our relevant news on the HKIE website at:

https://www.hkie.org.hk/en/news/news_detail/70/

² The list of engineering degrees accredited by the HKIE: <https://www.hkie.org.hk/en/quali/program/>
For engineering degrees recognised by the HKIE under the Washington Accord, please visit the Washington Accord website at <http://www.ieagreements.org/accords/washington/>.

- (ii) Candidates must have at least four years post-graduation relevant experience by **31 October 2019**.

Mature Route

- (i) For candidates with an accredited/recognised engineering degree³ or equivalent:
- They must be over 35 years old.
 - They must have at least four years post-graduation relevant experience by **31 October 2019**.

Or

- (ii) For candidates without an accredited/recognised engineering degree:
- They must be over 35 years old.
 - They must have obtained relevant experience in posts of increasing responsibility over a period of at least 13 years by **31 October 2019**.

3. Application for the HKIE Structural Examination

- (i) New candidates should complete and return to the HKIE the application form ([Form 1/MD](#)) with the fees required (see Section 7) on or before **30 August 2019**. Candidates who failed the Written Examination previously can apply for a resit (Please refer to the resit application form for the submission requirements).
- (ii) Please submit the application in a sealed envelope attention to the Membership Section and mark “Application for the HKIE Structural Examination 2019” on the envelope. If the application is submitted by post, please affix sufficient postage.
- (iii) Eligible candidates will be informed of the detailed examination schedule three weeks before the date of the Written Examination which will be tentatively scheduled for November or December 2019.
- (iv) After the Written Examination, candidates will be required to submit their assessment documentation for Interview to the HKIE by **31 March 2020**. Candidates via Formal Training Route and General Experience Route should refer to the “Guidance Notes for Documentation” (attached) on submission requirements; candidates via the Mature Route should follow the submission requirements as laid out in Section 6 of “M3 Routes to Membership”. The Mature Candidates will be required to take the Written Examination and the Interview as stated in this guidance notes. All documentation must be verified by a Corporate Member of the HKIE or the candidate’s employer.
- (v) The Interview, scheduled for June/July 2020, will be conducted under the competence-based system for all new applications. For candidates applying for resit and would like to take the Interview under the competence-based system,

³ The list of engineering degrees accredited by the HKIE: <https://www.hkie.org.hk/en/quali/program/>
For engineering degrees recognised by the HKIE under the Washington Accord, please visit the Washington Accord website at <http://www.ieagrements.org/accords/washington/>.

please indicate on the form of “Application for Resit” and provide the submission in competence-based format.

- (vi) All candidates will be notified of the results by mail. The Written Examination result will be release in April 2020 and the Interview result will be release in August 2020. All results will not be available prior to the notification. No telephone enquiry about the result will be allowed.
- (vii) Candidates who passed the Written Examination but failed the Interview will be invited to attend the Supplementary Interview usually scheduled for January. The results are usually released in March.
- (viii) Candidates who have passed both the Written Examination and Interview, but have not yet fulfilled the experience requirements as laid out in “[M3 Routes to Membership](#)”, will be required to submit a report on their experience in responsible position and CPD. They will be informed of the above requirements in the result letter. Those who have fulfilled the experience requirements will be notified of the results on admission to Corporate Member of the HKIE in the Structural Discipline by mail separately.

4. Key Dates for the HKIE Structural Examination

Key Dates	Application Procedure
30 August 2019	Application deadline
Early October 2019	Invitation to Preparatory Seminar by email
15 October 2019	Submission deadline for Supplementary Interview (for candidates who previously failed the Interview only)
Late October / Early November 2019	Preparatory Seminar
November 2019	Notification of details of the Written Examination to eligible candidates by post
November or December 2019	Written Examination
January 2020	Supplementary Interview
March 2020	Release of the Supplementary Interview result by post
31 March 2020	Submission deadline for Interview
April 2020	Release of the Written Examination result by post
Early June 2020	Notification of details of the Interview by post
June to July 2020	Interview
August 2020	Release of the Interview result by post

5. Written Examination

The Written Examination will be tentatively scheduled for November or December 2019. The examination duration is seven hours. The eligible candidates will be informed of the detailed examination schedule three weeks before the date of the examination.

The Written Examination paper consists of two sections covering the following areas. The examination paper for Section 1 will be collected at the end of this Section before the commencement of Section 2.

Section 1: Multiple Choices (Answer ALL questions -- 20 marks)
(Duration – One hour)

- Structural Engineering Concept
- Construction skills
- Building Control
- Contract and Construction Management
- Aspects on economy, health, safety and statutory regulations

Section 2: Design Questions (Answer ONE question -- 80 marks)
(Duration – Six hours)

- Design concept
- Identification of alternative schemes
- Choice of materials
- Presentation of design scheme, calculations and details

Candidates are required to pass both sections in order to obtain an overall pass of the Written Examination.

In Section 2 Design Questions, candidates have to pass both Section A regarding preparation of design appraisal indicating two distinct and viable structural schemes and Section B regarding preparation of design calculations, framing plans, etc. in order to get a pass in this part. In answering the design questions, candidates must satisfy the examiner in essential requirements including provision of two distinct and viable structural schemes and structure stability. A **FAIL** will be given if:

- (i) only one scheme is proposed (even if this only one scheme is structurally feasible and acceptable), or
- (ii) two schemes are proposed but they are not distinct or one of the schemes is not feasible, or
- (iii) properly dimensioned framing/layout plans for the selected scheme are not provided in Section B.

In addition, a **FAIL** may be given if the client's requirements are not fulfilled.

Candidates are required to follow the Codes of Practice, Design Manuals and relevant design guidelines accepted by the Hong Kong SAR Government in answering the design questions.

Equipment:

Candidates are required to provide their own pens, pencils, rulers and other writing and drawing equipment. Reference books, notes, portable computers and programmable calculators are allowed.

6. Interview⁴

The Interview will be conducted under the competence-based system for all new applications. For candidates applying for resit and would like to take the interview under the competence-based system, please indicate on the form of “Application for Resit” and provide the submission in competence-based format.

The interview will last for about 45 minutes. For both normal and mature candidates, Assessors will aim to satisfy themselves that candidates have spent sufficient time on suitable work and self-reflection on the training/work experience. Both Assessors may question candidates to ascertain how far they have taken advantage of the opportunities provided during their training and experience. They will question candidates to ensure that all the competences set out in the HKIE Competence Standard for Professional Engineers (Corporate Members) are achieved so as to satisfy a recommendation for election to Membership.

Candidates are required to give a 15-minute presentation on the project(s) submitted prior to the Interview. The objective is to test the candidate’s presentation skills as a professional engineer.

The interview shall be conducted in English.

⁴ For resit candidates who choose to resit under non competence-based system, please refer to the following requirements:

Candidates are required to give a 15-minute presentation on the project(s) submitted prior to the Interview. The objective is to test the candidate’s presentation skills as a professional engineer.

The interview shall be conducted in English.

An interview will follow to test the candidate’s experience, knowledge and ability on the following key elements:

- (i) Scope and quality of illustration
- (ii) Structural schemes & stability appraisal
- (iii) Alternative viable structural engineering solutions taking into account of client’s requirements - function, time and cost
- (iv) Construction sequences and plants commonly used
- (v) Contract administration, construction supervision and record keeping
- (vi) Quality assurance and control
- (vii) Environmental implications, sustainability and safety
- (viii) Local professional practice, and appreciation of local law and statutory legislation
- (ix) Effective communication
- (x) Interpersonal skills
- (xi) Presentation skills
- (xii) Relevant Experience

7. Fees

Candidates shall submit the application with (a) the application fee (HK\$550), (b) examination fee (HK\$2,200), and (c) entrance/transfer fee and subscription fee (please refer to the fee table attached to the application form for the entrance/transfer and subscription fees). Candidates who apply for a resit of either or both parts of the HKIE Structural Examination will be charged at HK\$2,200.

For candidates applying for an additional discipline, the examination fee is HK\$1,500.

The application fee and examination fee are non-refundable and non-transferable.

Candidates who are absent from one or both parts of the HKIE Structural Examination will be treated as having attended the examination for the purpose of fee calculation.

For updates on the HKIE Structural Examination, please visit our website at www.hkie.org.hk under “What’s New>News”.

If you have any queries, please contact the Membership Section by phone at 2890 2926 or by email at member@hkie.org.hk.

HKIE Structural Examination Guidance Notes for Documentation

(For Candidates via the Formal Training Route and the General Experience Route)

(Candidates must read this leaflet in conjunction with M3 Routes to Membership)

Candidates are required to submit their assessment documentation to the HKIE **by 31 March 2020**.

All documents should be the candidate's own work and **MUST** be verified by a Corporate Member of the HKIE or the candidate's employer.

All documents submitted will be treated as confidential and will be returned to the candidates. Candidates should, however, retain copies of all documents submitted as the HKIE does not accept responsibility for any lost or damaged documents.

The requirements of the documentations are as follows:-

1. Report on Training and Experience

The objective of this report is to inform the Assessors about the candidate's training and experience. The report provides evidence to demonstrate that the candidate meets the HKIE Competence Standard for Professional Engineers (Corporate Members). It should be concise, between 1,600 and 2,000 words, in English, typewritten on single sides of A4 paper and submitted in **duplicate**. At the top of the report, candidates must set out the specific periods of training and experience that they have acquired in chronological order, giving inclusive dates in months and years.

The report must not be a mere inventory of work prepared and executed. Candidates should:

- (i) 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;
- (ii) use the first person (I, me, my) to show their personal contribution (not applicable to interviews under non competence-based system);
- (iii) indicate the size and cost of the works;
- (iv) elaborate on any particular problems they have encountered and how they arrived at viable solutions;
- (v) provide evidence to demonstrate that the competences set out in the HKIE Competence Standard 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 (not applicable to interviews under non competence-based system).

2. Project Report

The report should be prepared in A4 paper, supported with drawings of NOT greater than A1 size and submitted in **duplicate**.

The report shall highlight the technical background of the projects, including general description on scope of works, structural design assumptions and concept, design calculation and analysis, support with related drawings such as foundation, excavation and lateral support plans, structural framing plan and site record photos.

Total no. of pages of the report shall be within 100 and total no. of drawings shall NOT be more than 15.

The Report should satisfy the requirements as stated in 1 (ii) & (v) (not applicable to interviews under non competence-based system).

Pre-interview Project Presentation

Prior to the interview, candidates will be allowed 15 minutes to make a presentation of their Project Report. Candidates should plan this presentation carefully to allow themselves to cover the scope of their Report in the time allocated.

The Assessors will not normally ask questions until the presentation has been completed. The Assessors will, however, help a candidate who is clearly having problems due to nervousness.

Candidates will be able to use the supporting documentation, photographs and drawings submitted as part of the Project Report, and will be permitted to use flipcharts to illustrate the presentation. No visual aids such as slides or overhead projectors will be allowed.

The purpose of this part of the assessment is to ensure that candidates are able to present themselves orally as well as in writing.

3. Continuing Professional Development (CPD) Record

Candidates should provide a CPD record to show that they have met the minimum required number of CPD hours.

A record of Continuing Professional Development up to **31 March 2020** should be provided. Any projection of CPD activities after **31 March 2020** will not be accepted. Nevertheless, candidates are expected to continue their CPD activities after that date.

Please refer to Section 4 of M3 Routes to Membership “CPD Requirement and Guidelines” for details.

4. Training Logbook/Record (applies to candidates under Formal Training Route only)

APPLICATION FOR RESIT – THE HKIE STRUCTURAL EXAMINATION

I, _____ (Candidate's name), am writing to apply for a resit in the HKIE Structural Examination.

Personal Details

Application number: _____

Surname: _____ First Name: _____

Address for Communication: _____

Company: _____

Position: _____

Home Tel: _____ Work Tel: _____

Fax No: _____ Mobile: _____

Email: _____

Assessment System for Resit

(Applicable to the candidates who have not yet passed the Interview Part of the HKIE Structural Examination.)

I would like to resit the Interview Part of the HKIE Structural Examination under the **competence-based System**.

Yes* No* (*Please tick as appropriate)

(Candidates who choose to resit under the competence-based System must provide the submission in competence-based format. Relevant information of the competence-based Professional Assessment is published on HKIE website www.hkie.org.hk under "Members" > "Downloads" > "Membership".)

(Candidates who choose to resit under non competence-based System, please refer to <https://hkie.org.hk/docs/downloads/membership/forms/M3%20non%20competence%20based%20ver.pdf>)

Candidate's Checklist

Updated curriculum vitae# Examination Fee (*Non-refundable and non-transferable.*)

Updated CPD record#

MUST be verified by a Corporate Member of the HKIE or the candidate's employer.

(For submission requirements, please refer to the "Guidance Notes for Documentation".)

Candidate's signature

Date