

M4 ROUTES TO ASSOCIATE MEMBERSHIP

(Where the masculine gender is used in the text, it is intended that this should embrace both the masculine and feminine genders)

1. Definition of Associate Member

A definition of an Associate Member used by the Conference of Engineering Societies of Western Europe and the United States, was adopted by the HKIE for the class of Associate Member:

“An Associate Member is one who can apply in a responsible manner proven techniques which are commonly understood by those who are expert in a branch of engineering, or those techniques specially prescribed by professional engineers.

“Under general professional engineering direction, or following established engineering techniques, he is capable of carrying out duties which may be found among the list of examples set out below.

“In carrying out many of these duties, competent supervision of the work of skilled craftsmen will be necessary. The techniques employed demand acquired experience and knowledge of a particular branch of engineering, combined with the ability to work out the details of a task in the light of well-established practice.

“An Associate Member requires an education and training sufficient to enable him to understand the reasons for and purpose of the operations for which he is responsible.

“The following duties are typical of those carried out by Associate Members under the conditions referred to above.

“Working on design and development of engineering plant and structures: erecting and commissioning of engineering equipment and structure; engineering drawing; estimating, inspecting and testing engineering construction and equipment; use of surveying instruments; operating, maintaining and repairing engineering machinery, plant and engineering services and locating defects therein; activities connected with research and development, testing of materials and components and sales engineering, servicing equipment and advising consumers.”

2. Academic Requirements

Academic qualifications that meet the requirements of the Institution for the class of Associate Member are:-

- (i) a Higher Diploma accredited/recognised by the Institution; or
- (ii) a Higher Certificate accredited/recognised by the Institution; or
- (iii) an accredited Higher Diploma or Higher Certificate as listed in an international agreement.

Other technician level qualifications in engineering or technology may be considered for the class of Associate Member based on an individual assessment. Candidates are required to complete Form 1/AQ and demonstrate their academic achievements by:-

- (i) presenting programme transcripts and curriculum of individual course
- (ii) providing English translation as well as a copy of the original document on all information submitted if it is not in English
- (iii) presenting results of academic assessments made by an appropriate authority (e.g Engineering Council)

3. Training and Experience Requirements

3.1 General Requirements

Training and experience should include a period of induction, a period of basic training and a period devoted to acquiring both a broad and sound knowledge of relevant engineering practice and competence in its application. Trainees should become familiar with the materials, tools and processes used both in their own branch and in related branches of engineering. It is important that they develop a flexible attitude so that they will be able to meet the challenge of rapidly changing technology. Training and experience should emphasise on both depth and breadth, particularly during the earlier period, so that a sound foundation is created on which can be built the specialised knowledge and competence required at a later stage.

Throughout the training/experience periods particular emphasis should be placed on developing to the appropriate level the ability to:

- use and communicate information;
- use a variety of hand and machine tools, measuring and controlling instruments, equipment, apparatus and computers as appropriate;
- choose materials and components and understand the processing of materials and the application of microprocessors and automation to his branch of engineering;
- understand the organization of engineering activities and the associated financial and economic practices; and
- exercise diagnostic skills.

Training and experience should be directed to developing the ability to organize and give direction to the work of others, and trainees must obtain practical knowledge, competence and experience in useful work rather than by just observing the work of others.

3.2 Duration

Candidates for Associate Member must have received a minimum of two to four years training and experience depending on their academic qualifications and application routes.

4. Routes to Associate Membership

General Experience Routes

Two distinct routes are identified to enable candidates to qualify for Associate Members. Details are given below.

4.1 Route AM1

Requirements:

1. A Higher Diploma accredited/recognised by the Institution or equivalent in a relevant discipline.
2. A minimum period of three years experience is required with a maximum exemption of one year pre-qualification experience. Any exemption granted will require assessment by the Institution.

4.2 Route AM2

Requirements:

1. A Higher Certificate accredited/recognised by the Institution or equivalent in a relevant discipline.
2. A minimum period of four years experience is required with a maximum exemption of two years pre-qualification experience for applicants who have completed apprentice training or one year exemption for applicants in cases of other pre-qualification training. Any exemption granted will require assessment by the Institution.

Formal Training Route

In addition to the general experience routes, formal training route is also available.

4.3 Route AM3

Requirements:

1. A Higher Diploma accredited/recognised by the Institution or equivalent in a relevant discipline.
2. A formal training of two years approved by the Institution in a relevant discipline.

(Note: This route is only applicable to the Disciplines with formal training scheme.)

5. Procedure

- 5.1 Candidates should submit to the Institution application form for Election or Transfer to the class of Associate Member (Form 1/AM) with two supporters, one Corporate Member and one Associate Member. At least one of them should be in the same discipline as the candidate's.
- 5.2 Together with the application form, candidates are required to submit certified true copies of their academic qualifications, a report on his training and experience, a record of CPD and samples of recent works like drawings, calculations, photographs, etc as appropriate.
- 5.3 Interviews will be arranged for candidates as soon as application and submissions have been received and checking procedures have been completed.
- 5.4 Candidates will be notified of their Assessment results as soon as a decision has been made and ratified by the Council. Indication of the areas of weakness or failure to meet the required standard will be given to unsuccessful candidates.

6. The Submission

6.1 Report on Training and Experience

The object of the report is to inform the Assessors about the candidate's training and experience (Section 3). The report should be concise, of around 800 words, in good English, typewritten on single sides of A4 paper and submitted in duplicate. At the beginning of the report the candidate must set out in chronological order, giving the months and years in each case, the inclusive dates of the particular periods of training and experience that he has had.

In the report (which must not be a mere inventory of work prepared and executed) the candidate must describe the tasks on which he has been employed. It is essential to describe as clearly as possible what work has been done and what responsibilities the candidate has taken. An indication of the size and cost of the works should be given.

HKIE log book for training schemes will be accepted in lieu of report on training and experience.

6.2 Samples of Recent Works

The candidate is required to submit samples of recent works in support of his application, such as drawings, reports, plans, calculations, photographs, etc as appropriate.

6.3 Continuing Professional Development (CPD) Record

A record of CPD should be provided. For candidates under the General Experience Route, the requirement is a minimum average of 45 hours (or 7.5 days) per year for the two years immediately prior to their applications for Assessment. For candidates under the Formal Training Route, a minimum average of 45 hours (or 7.5 days) per year calculated from the commencing date of training scheme, up

to the time of Assessment is required.

Candidates' records of CPD activities should be maintained in the Institution's CPD log book or similar. A record of CPD undertaken will be required before an applicant can proceed to Assessment.

For details please refer to Section 10 "CPD Requirements and Guidelines."

All documents submitted by the candidate supporting his application should be authenticated by his employer or principal who should preferably be a Corporate Member/Associate Member of the Institution.

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 Institution does not accept responsibility for any documents which may be lost or damaged.

7. The Interview

The candidate will be required to attend an interview at an appropriate place and time by two Corporate Members/Associate Members. Assessors will aim to satisfy themselves that the candidate has spent sufficient time on suitable work to absorb the lessons to be learned therefrom. Both Assessors may put questions to the candidate with the object of ascertaining how far he has taken advantage of the opportunities provided during his training and experience and whether he has attained a standard of proficiency and competence sufficient to justify admission to Associate Member.

Initially questions will be directed largely at the candidate's submissions, mainly to test his knowledge of the engineering applications including technical accuracy and practicality. The Assessors may test on the competency to supervise the works of skilled craftsman. They may also test on knowledge of a particular branch of engineering and the ability to work out details of a task in the light of well established practice. Finally, they may also question on knowledge of professionalism and appreciation of ethics in relation to the engineering profession.

8. The Mature Candidate Route

A Mature Candidate is a person with considerable responsible experience at the level of Associate Member but who may not possess the normal academic qualifications currently acceptable to the Institution for Associate Member.

8.1 Eligibility

A candidate for admission to Associate Membership via the Mature Route should:

8.1.1 be at least 35 years old at the date of application;

8.1.2 have had experience in posts of generally increasing responsibility in a relevant branch of engineering over a period of at least 15 years; and

- 8.1.3 have attained a position demonstrating a level of competence at the level of Associate Member and would have admitted him to the class of Associate Member had he satisfied the normal academic requirements.

8.2 Procedure

- 8.2.1 A candidate should apply on the normal form for Election or Transfer to the class of Associate Member (Form 1/AM) indicating on the form that he is applying via the Mature Route and ensure that his supporter is aware of this.
- 8.2.2 If his candidature is approved, he will be required to submit a report on his training and experience within a period of six months.
- 8.2.3 The candidate's report will be assessed by a panel on behalf of the Institution. If it is found satisfactory by the panel the candidate will normally be required to attend an interview. An interview will not be conducted if the report is found to be unsatisfactory, but a candidate may be given an opportunity to re-present the report after modification. The report will be treated as confidential.
- 8.2.4 The candidate will be notified of the result of his application as soon as a decision has been made and ratified by the Council. Indications of his areas of weakness or failure to meet the required standard will be given to an unsuccessful candidate.

8.3 The Submission

8.3.1 Report on Training and Experience

The report on training and experience should be concise, between 1600 and 2400 words, in good English, typewritten on single sides of A4 paper and submitted in duplicate. At the beginning of the report the candidate must set out in chronological order, giving the months and years in each case, the inclusive dates of the particular periods of training and experience that he has had.

In the report (which must not be a mere inventory of work prepared and executed) the candidate must describe the tasks on which he has been employed. His account should be in chronological sequence and should explain clearly the precise position the candidate has occupied in each case and the degree of responsibility assigned to him. He should enlarge on any special problems he has met and on which he has obtained more extensive experience. An indication of the size and cost of the works should be given.

The report on training and experience submitted by the candidate supporting his application should be authenticated by his employer or principal who should preferably be a Corporate Member/Associate Member of the Institution.

8.3.2 Continuing Professional Development (CPD) Record

A record of CPD should be provided. For candidates under Mature Route, the requirement is a minimum average of 45 hours (or 7.5 days) per year

for the two years immediately prior to their applications for Assessment.

Candidates' records of CPD activities should be maintained in the Institution's CPD log book or similar. A record of CPD undertaken will be required before an applicant can proceed to Assessment.

For details please refer to Section 10 "CPD Requirements and Guidelines."

9. The Interview

9.1 The candidate will be required to attend an interview at an appointed place and time by two Corporate Members/Associate Members of the Institution. He may bring to the interview other material that he considers will be helpful in demonstrating that he has attained a standard of knowledge in his particular field of engineering which justifies exemption from the formal academic requirements for Associate Member.

9.2 The Assessors will judge whether the candidate has demonstrated sufficient understanding of the principles of engineering and whether he has attained a standard of proficiency and competence sufficient to justify admission to the class of Associate Member.

10. Continuing Professional Development (CPD) Requirements and Guidelines

The HKIE CPD Definition

"Continuing Professional Development (CPD) is the systematic maintenance, improvement and broadening of relevant knowledge and skills, and the development of these qualities necessary for the successful carrying out of professional duties throughout an engineer's career. In this it is aimed at enhancing individual worth and thus corporate performance."

CPD applies to Corporate Members, Associate Members and to engineers in the pre-Corporate Member stage and pre-Associate Member stage.

Introduction

Continuing Professional Development is an ongoing necessity in the ever changing technological world in which we live. The practising professional engineers should aim to remain competent throughout their working careers so that they can properly carry out their various duties. To this end engineers need to take opportunities to update their depth and breadth of knowledge and expertise and to develop those personal qualities required to fulfil their roles in industry and in society.

- General Scope of CPD

CPD covers matters of direct technical relevance as well as broader studies also of importance to the HKIE members in the furtherance of their careers such as communication, environmental matters, financial management, leadership skills, legal aspects, marketing, occupational safety and health and professional ethics.

- General Format of CPD

The format of CPD activities can include but not limited to participating and organising of courses, lectures, seminars/symposia, conferences, presentations, workshops, industrial attachment and visits, e-learning and professional activities. They may be provided by the HKIE Divisions, the engineering industry itself, and a variety of other organizations.

CPD Requirements

The HKIE specifies a minimum formal CPD requirement for those at the pre-Corporate Member stage and pre-Associate Member stage, its policy is to strongly encourage CPD thereafter. The CPD record will be taken into account when considering any application for Fellowship.

The log book is intended to cover a full career from graduation until retirement. It has been produced as a convenience to members and as a tangible expression of the Institution's commitment to CPD. The log book will provide the CPD activities undertaken in chronological order. In this context it could be useful in application for employment or to join other organizations.

CPD Requirements for Candidates applying to become Associate Members

Routes	CPD Requirement	Scope of CPD
Formal Training Route	A minimum average of 45 hours per year from the commencement date of the training scheme, up to the time of Assessment.	CPD should cover subjects with direct technical relevance of the discipline applied for as well as those of a broader professional nature. The minimum requirement for occupational safety & health/ environmental subjects and/or professionalism and ethics should be 6 hours per year .
General Route or Mature Route	A minimum average of 45 hours per year for the 2 years immediately prior to their applications for Assessment. Note - In the first year of implementation, i.e. from 1 February 2004 to 31 January 2005, the CPD requirement should be 45 CPD hours for 1 year immediately prior to their application for Assessment .	CPD should cover subjects with direct technical relevance of the discipline applied for as well as those of a broader professional nature. The minimum requirement for occupational safety & health/ environmental subjects and/or professionalism and ethics should be 6 hours per year .

CPD Requirements for Associate Members

Class of Members	CPD Requirement	Scope of CPD
Associate Members	A minimum of 30 hours per year on a self-regulatory and voluntary basis starting from 1 February 2004.	CPD covers matters of direct technical relevance as well as broader studies also of importance to the HKIE members in the furtherance of their careers such as communication, environmental matters, financial management, leadership skills, legal aspects, marketing, occupational safety and health and professional ethics.

One CPD day can be specified as 6 hours. Any claim of CPD activities of more than 6 hours in a calendar day would require approval by the Engineering Supervisor (for Formal Training Route) or the relevant Discipline Advisory Panels (for General Experience or Mature Route).

It is not practical for the HKIE to approve CPD activities. Corporate Members and Associate Members themselves must determine whether an activity fits the CPD definition or not in their own particular circumstances. Corporate Members and Associate Members are required to record their CPD hours in a log book and complete a Declaration Form, which will be attached with the membership subscription advice. This is a self-assessment and self-declaration exercise aimed at promoting CPD among Corporate/Associate Members.

For the pre-Corporate or pre-Associate Membership stage it is for the **Engineering Supervisor** (for trainees under Formal Training Route) or a **Responsible Person** (i.e. “normally an appropriate senior person in the employing organization, preferably a Corporate Member or Associate Member of the HKIE as may be appropriate”) to consider whether the activity should be endorsed in the log book as fitting CPD criteria.

The suitability of a CPD activity should be judged in relation to the HKIE definition above.

The CPD log book format is intended to be easy to complete. The vertical columns on the activity record sheets are as follows:

(a) Pre-Corporate/Pre-Associate Membership Stage

The far right-hand column is for endorsement by the **Engineering Supervisor** (for trainees under Formal Training Route) or a **Responsible Person** who will normally be a senior person in the organization, preferably a Corporate Member or Associate Member of the HKIE as may be appropriate;

(b) Throughout the log book in the column headed “**Activity**” it is intended that the CPD activity title and the major topics covered should be noted;

- (c) The column headed “**Activity Organizer**” should give the name of organization providing the activity (e.g. The HKIE).
- (d) Postgraduate Degree Programmes are usually not considered as CPD. Nevertheless, Engineers may find some of the modules in the programme are helpful to their professional development and matching the HKIE CPD criteria. In such cases, the Engineers should seek the endorsement of the relevant subjects from their Engineering Supervisor or Responsible Person.

Conclusion

The benefits of CPD are not easily quantifiable but none-the-less real. The HKIE CPD policy is based on the conviction that CPD is of value to its members, to the profession, to industry and to society.

11. CPD Requirements for Associate Members (Voluntary Scheme)

Associate Members are encouraged to undertake a minimum of 30 CPD hours (or 5 CPD days) each year on a self-regulatory and voluntary basis starting 1 February 2004.

Associate Members are required to record their CPD days in a log book and complete a Declaration Form, which will be attached with the membership subscription advice. This is a self-assessment and self-declaration exercise aimed at promoting CPD among Associate Members.

Please refer to the HKIE website for the latest version of the information booklets and application forms for Membership:

https://www.hkie.org.hk/en/membership/download_mem2/