

## RESEARCH AND DEVELOPMENT ROUTE TO CORPORATE MEMBERSHIP

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

### Introduction

1. The “research and development” (R & D) route is intended for candidates who are seeking Corporate Membership of the Institution with experience gained in a Discipline through research and development activities and is currently active in research in R & D institutes. Candidates who do not fulfil the above may be advised to change their membership applications to other routes.

### Philosophy on the Development of Research and Development Route

2. The Institution always takes the quality of its Corporate Members very seriously. The research and development route is developed in a way that it would not compromise any existing requirements but upon an even higher ground with consideration of the characteristics of the applicants in this sector.

### Research and Development Route to Corporate Membership – The Criteria and Requirements

3. The criteria and requirements for the Research and Development Route to Corporate Membership are:

- (a) Academic Requirements

An applicant must possess an earned doctoral degree relevant to a Discipline from a University whose name appears on the list of accredited engineering degrees under the Washington Accord.

- (b) Experience Requirements

An applicant must possess at least 8 years post first degree experience relevant to a Discipline. The 8 years post-degree experience relevant to applying Discipline must satisfy the experience requirements of that Discipline pursuant to M3 Routes to Membership. A relevant higher degree may be accepted as part of the general experience period. Please refer to Section 3 of M3 Routes to Membership for details.

- (c) Research and Development Requirements

An applicant must submit evidence of engineering research or development work of original nature that has been carried out over a substantial period. The research or development work should normally have a blend of experimental and mathematical or numerical investigation. Some evidence of research or development leadership is expected.

An applicant will submit at least five quality papers that have been published in refereed journals which are included in relevant citation indexes.

An applicant who would like to submit development work for assessment must have played a major part in the activity. The work should be comprehensive in content rather than be limited to a proprietary system. Normally the output from

the development work should take the form of studies, papers and reports. For design guides, codes or manuals, the applicant should be the sole author or the principal co-author. The applicant is expected to have taken a leading role in the management of a development group or team.

- (d) If the applicant satisfies all the academic requirements, experience requirements and research and development requirements, he/she will be allowed to take an assessment interview which follows the membership requirements as stated in M3 Routes to Membership. The Assessors shall reserve the right to undertake essay test in case necessary. Corporate Members applying for Additional Discipline (not applicable to Structural Discipline) are exempted from the essay/technical write-up.**

### Procedure

- (i) An applicant should submit the HKIE form for Application for the Class of Member or Additional Discipline (Form 1/MD), accompanying by the following documents:
  - Certified true copies of certificate and transcript of Degrees
  - Research papers, design guides, codes or manuals for the purpose of satisfying the above (c) requirements.
  - Extended Curriculum Vitae<sup>#</sup>
  - Continuing Professional Development (CPD) Record
- (ii) Initial checking would be conducted by the Secretariat on the applications. All completed applications would be submitted by the Secretariat to the respective Discipline Advisory Panels for assessment.
- (iii) The respective Discipline Advisory Panels would assess and make recommendations on whether the doctoral degree possessed by the applicant is relevant to the Discipline.
- (iv) Following (iii), the respective Discipline Advisory Panels would assess and make recommendations on whether the applicant satisfies the experience and research and development requirements.
- (v) An applicant who satisfies the academic, experience and research and development requirements as stated in Section 3 would be *required to submit a Research Competence Report<sup>#</sup> upon which an assessment interview in accordance with the requirements stated in M3 Routes to Membership would be arranged.* The Assessors shall reserve the right to set an essay test if they deem it necessary. Corporate Members applying for Additional Discipline (not applicable to Structural Discipline) are exempted from the essay/technical write-up.

<sup>#</sup> Please refer to Content of the Extended Curriculum Vitae and the Research Competence Report.

## CONTENT OF THE EXTENDED CURRICULUM VITAE AND THE RESEARCH COMPETENCE REPORT

### 1. Extended Curriculum Vitae

The Extended Curriculum Vitae should describe the candidate's career to date and should indicate:

- The positions held both in research and other non-research employment and the level of responsibility
- Details of research projects for which the candidate was responsible together with an indication of their team composition, financial value and funding sources
- Details of the nature and extent of any industrial collaboration and/or commercial exploitation arising from all relevant research projects
- Details of non-research projects for which the candidate was responsible together with an indication of their size and financial value
- Indicates how the candidate has acquired technical competence in devising engineering solutions, organizational competence in harnessing resources to deliver the solutions, and management competence in managing stakeholders to facilitate the delivery

### 2. Research Competence Report

The Research Competence Report shall be between 2,000 and 4,000 words in length and should

- Include details of appropriate research projects for which the candidate is/was responsible
- Not be a mere inventory of research projects, but should set out the precise outputs
- Include details of any non-research areas of employment that could enable the candidate to demonstrate achievement of one or more areas of professional competence (see last Item in (1) above on areas of competence)
- Give no more than a brief outline details of the candidate's early career, but should focus on more recent experience where achievement of the necessary areas of professional competence may be more easily demonstrated
- Detail the nature and extent of any industrial collaboration and/or commercial exploitation arising from all relevant research projects
- Identify and discuss the research output in the form of published work or other relevant forms of output
- Indicate clearly the candidate's contribution to the research team, the development of research methodologies, the conduct of the research programme, the development of theoretical principles, and the dissemination and publication of research findings
- Flag up projects from which the quality papers submitted with the application originated; (the candidate may in the course of preparation of the research competence report replace the quality papers)
- Indicate the importance and originality of the candidate's work and how his research has contributed, in a significant way, to the body of knowledge of the discipline

Candidates should follow below instructions in preparation of the Extended Curriculum Vitae and the Research Competence Report:

- (a) use the first person (I, me, my) to show their personal contribution;
- (b) provide evidence to demonstrate that the competences set out in the HKIE Competence Standard for Professional Engineers (Corporate Members) are achieved as far as possible 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.