



## **The Institution of Engineers, Malaysia**

# **IEM LOG BOOK TRAINING SCHEME GUIDELINES**

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## 1. INTRODUCTION

### 1.1 Definition

This document presents the Log Book Training Scheme Guidelines, which is the primary document to be referred in facilitating the planning and execution of the scheme by the IEM. The other but secondary references are the BEM's Professional Development Programme, IEM's Professional Interview Guidelines, and IEM's Structured Training Programme Guidelines.

### 1.2 Glossary and Interpretation

#### *Glossary*

- **Board of Engineers** , or abbreviated as BEM , is the regulatory body responsible for the registration of individuals practicing the profession of engineering in Malaysia in accordance Engineers Registration Act and its subsequent Amendments
- IEM is the abbreviation for “The Institution of Engineers, Malaysia”
- **IEM Corporate Member** means a member of IEM who has been admitted or transferred into the grade of Member (MIEM) or Fellow (FIEM) upon satisfying the IEM Council that he has attained such standard and criteria as set by the Council being evidence of his proficiency as a professional engineer.
- **IEM Graduate Member** means a member of IEM who has been admitted or transferred into the grade of Graduate Member (Grad IEM).
- **IEM Log Book Training Scheme** means the training scheme organized by IEM to provide guidance to a proper practical training for IEM Graduate Member entering the profession of engineering and to ensure that such training fulfills the requirements for his transfer to be a Member of IEM.
- **IEM Log Book means** the formatted book document issued by the IEM to the mentee for the latter to record in chronological order his training and experience under the log book training scheme.
- **Member** means a Member of the Institution of Engineers, Malaysia (MIEM).
- **Mentor** means an IEM Corporate Member of the same discipline, who has been assigned to supervise the practical training of an IEM Graduate Member under the IEM Log Book Training Scheme.
- **Mentee** means an IEM Graduate Member who has chosen or opted to undergo practical training supervised by an IEM Corporate Member of the same discipline under the IEM Log Book Training Scheme
- **Professional Interview Guidelines** is the document servicing an IEM Graduate Member to facilitate preparation to attend a Professional Interview, issued upon the IEM Graduate Member's official registration with the IEM to attend the Professional Interview.

- Site / Field Experience means the period of training and experience of the Candidate during which he spends his time in the site/field either supervising an engineering work, conducting his research and development work, or being involved in operation and maintenance work.

Site/field experience shall not consist merely of periodical and routine site/field inspections, attending site meetings, but shall have to include activities which demonstrate engineering proficiency and competency like troubleshooting, site situational problem solving, clarifying of design uncertainties, proposing of better alternative designs, reviewing parameters and improving work procedures and standard practice, surveys, material testing and work sequencing.

With regard to the Civil Engineering discipline, the Candidate has to spend at least twelve (12) months in the site/field, while a Candidate from other disciplines has to spend a minimum of six (6) months at the site/field.

- **Structured Training Guidelines** ( to be defined later as per the IEM’s official definition)
- **Supervising Engineer** means an IEM Corporate Member, or equivalent professional affiliation, of the same disciplinewho has personal knowledge of the Applicant/Candidate’s roles and responsibility within the same organization or company.
- **Interpretation.**

Unless the context requires otherwise:

- a) words in the singular include the plural and vice versa;
- b) words importing the masculine gender include the feminine gender;

## 2. IEM LOG BOOK TRAINING SCHEME

- 2.1 The Log Book Training Scheme is drawn up by the IEM in order to provide proper practical training to its graduate member engineers entering into the profession of engineering and to ensure that such training conforms to the Rules and Regulations concerning the admission of Corporate Members and towards allowing graduate engineers attain the Professional Engineers status with the BEM.

A candidate appearing for the Professional Interview (PI) is required to obtain his/her practical experience under a practical training scheme duly supervised by a Corporate Member of the IEMand/or a Professional Engineer (PEng) with the BEM.

The activity flow diagram on the route to obtaining the BEM and IEM professional affiliation are appended in section 3.6.1 of this document.

- 2.2 Through the scheme, a mentee Graduate Member engineer will be progressively monitored, assessed, and advised by a mentor Corporate Member Engineer, of the former's learning outcomes vis-à-vis planned and acquired practical experience and developmental training.
- 2.3 Under it, a mentee will be required to complete a minimum of three (3) years of such mentored training under a mentor of the same professional engineering discipline endorsed by the IEM.

### **3. TERMS OF REFERENCE**

The terms of reference for the Log Book Training Scheme are as follows:

#### **3.1 Scope and Work Objectives**

- 3.1.1 Selection of a mentor by mentee
- 3.1.2 Initial acquaintance and (training and experience) baseline assessment session between mentee and prospective mentor(s)
- 3.1.3 Endorsement of the selected mentor and training scheme by the IEM
- 3.1.4 Conduct of the Log Book Training Scheme (details in section 3.2 below)
- 3.1.5 Preparation of the necessary log documents to be signed by the mentor and shall submit the Log Book to the IEM on satisfactory completion of the period of training scheme - and when attending the Professional Interview.
- 3.1.6 Issuance of an official notification by the IEM stating the Mentee's successful completion of the Log Book Training Scheme , and the option of either to attend the Professional Interview or to continue further with the training scheme.

An activity flow diagram on the Log Book Training Scheme is appended as section 3.6.2 of this document.

#### **3.2 Conduct of Log Book Scheme**

##### **3.2.1 Registration of Mentor under Log Book Scheme**

Interested IEM Corporate Member who do wish and volunteer to register as Mentor shall be registered by the Secretariat and the list of Mentors shall be maintain and keep under review by the IEM

The interested Mentor shall submit to the Secretariat his/her intention to become Mentor on the prescribed Form. The qualifying requirements of a Mentor are as follows:-

- 3.2.1.1 An IEM Corporate Member and a Professional Engineer who shall be in such a position of responsibility as will enable him/her in the opinion of the Council to ensure that Candidate obtains adequate and relevant practical training in the field, office and on works, and to exercise such supervision that he/she could sign the relevant certificates require by the Institution on completion of the practical training period.
- 3.2.1.2 He/She has been an IEM Corporate Member and a Professional Engineer registered with the BEM for at least three (3) years.
- 3.2.1.3 He/She shall not act as Mentor to more than three(3) candidates at any one time.
- 3.2.1.4 He/She shall undertake to report any change of circumstances which may prevent him from providing proper training to the candidate.
- 3.2.2 The Mentee shall perform his/her practical training under the Log Book Training Scheme as per the IEM prescribed format.
- 3.2.3 A record or Log Book shall be issued to the Mentee in order for the Mentor to indicate his/her endorsement (P. Eng stamp and endorsement).
- 3.2.4 The Log Book shall be recorded and updated every three (3) months till the completion of minimum 36 months, or three (3) years of post graduation experience, under the supervision of the Mentor endorsed by the IEM. The Mentee is expected to continually review the training with his/her Mentor every three months for guidance and verification.
- 3.2.5 Once a year, the Log Book should be presented to the Honorary Secretary of IEM for endorsement.
- 3.2.6 Content of Log Book
  - 3.2.6.1 It is expected that all the relevant training and experience matters be recorded in chronological order and such activities be properly vouched together with activities associated with the IEM and other engineering profession entities.

3.2.6.2 Examples of topical matters expected to be included in the Log Book are as follows:-

1. Workshop and Site Activities
2. Surveys, investigations and reports.
3. Design and drawing office
4. Estimation and cost control
5. Project and contract management
6. Production, quality control and manufacturing processes
7. Organization, supervision and administration
8. Technical Sales.
9. Research & Development and Teaching.

3.2.6.3 Any additional courses to the normal or post graduate university programme should be indicated in the relevant pages of the Log Book to be endorsed by the Mentor. Details are to be presented with relevant evidence that Mentee has taken the course accordingly.

### 3.3 **Roles and responsibilities of Mentee**

- 3.3.1 Mentee shall ensure that the Mentor has the relevant experience in the field that he is working now so that he/she can get relevant advice.
- 3.3.2 Mentee shall get permission from his employer organization on the IEM Log Book Training Scheme in order to sanction the type and level of confidentiality and information that can be shared with the Mentor when reporting his training and work experience.
- 3.3.3 It is advisable that the Log Book Training Scheme possibly be incorporated into the Mentee's staff development program so that training under the scheme can be supported by the organization.
- 3.3.4 Mentee shall make the necessary arrangement to allow the Mentor to visit to his workplace, if necessary and essential to facilitate or improve the mentoring process

- 3.3.5 Mentee is responsible to plan and arrange the appointment with Mentor on a regular basis, at least once in every three (3) months. Meeting schedule and the mode of meeting shall be mutually agreed upon by both parties.
- 3.3.6 Mentee shall prepare proper logged reports and documentation to be verified by the Mentor during the scheduled meeting.
- 3.3.7 Mentee shall make the effort to get the training and experience necessary as required by Professional Interview Guidelines within the mentorship period.
- 3.3.8 Mentee is responsible to timely submit annually his/her log book document Log Book to the IEM for endorsement
- 3.3.9 In the event that Mentee wishes to discontinue with the Log Book Training Scheme he/she needs to advise both the Mentor and IEM of his/her decision in writing.
- 3.3.10 Mentee shall ensure that he/she attended all the mandatory courses and training needed to accumulate the BEM's Professional Development Programme ( PDP ) points before he/she applies to attend the Professional Interview.

#### **3.4 Roles and responsibilities of Mentor**

- 3.4.1 Mentor is to assess the Mentee's baseline capabilities and in relation to the developmental support, if any, possible from the Mentee's employer organization, to possibly enable the Log Book Training Scheme be accounted as part of the Mentee's staff development plan.
- 3.4.2 If the Mentee's employer organization does not support the Mentee's staff development, the Mentor shall advise the Mentee on the possible requirements needed so that the Mentee can take appropriate action to gain the training and experience needed.
- 3.4.3 The Mentor needs to agree on regular meeting schedule with Mentee, at least once in every three (3) months, so that the latter's progress can be continually tracked.
- 3.4.4 It is advisable that Mentor pays a visit to the Mentee's employer organization to understand the Mentee's training and experience situation, towards facilitating the Mentor's baseline assessment on the Mentee's capabilities under the Log Book Training Scheme



- 3.4.5 Mentor shall review and make advisory comment on the Mentee's training and experience and check for adequacy of the Log Book report so that the mentee can use it to prepare for the Professional Interview requirement.
- 3.4.6 The mentor should particularly check that the minimum duration spent in activities for design, field, and management experience is obtained during the Log Book Training Scheme period
- 3.4.7 The Mentor should ensure that he/she does not have any issue on conflict of interest with mentee's employer organization during the Log Book Training Scheme period
- 3.4.8 In the event the Mentor could not continue participating in the Log Book Training Scheme, the Mentor shall advise IEM for a replacement.
- 3.4.9 A single Log Book Training Scheme should only apply to a single engineering discipline
- 3.4.10 It is advisable for the mentor to encourage and support the mentee to sit for the Professional Interview after the completion of the Log Book Training Scheme. The mentor shall advise the requirement and the process needed for the mentee to become a Professional engineer with BEM and a corporate member of IEM.

### **3.5 References on Training and Experience Requirements**

The following are the secondary references useful in facilitating conduct of the Log Book Training Scheme, and can be sourced at the IEM Secretariat:-

#### **3.5.1 BEM'S PRE-PROFESSIONAL REQUISITE COURSES**

This reference details the aim, purpose, scope, and training courses making up the Professional Development Programme (PDP) for registered Graduate Engineers. The PDP is a pre-requisite to registering for the BEM's Professional Assessment Examination (PAE) towards qualifying as a Professional Engineer. (P.Eng or Ir.)

#### **3.5.2 IEM'S PROFESSIONAL INTERVIEW GUIDELINES**

This reference details the aim, purpose, scope, and qualifying requirements of the Professional Interview. It serves to facilitate an IEM Graduate Member preparing to attend the Professional Interview (PI). A success in the PI is pre-requisite to an IEM Graduate being transferred to the grade of Corporate Member.

### 3.5.3 IEM'S STRUCTURED TRAINING PROGRAMME GUIDELINES

(To be included upon availability of the IEM's official definition of the guidelines)

## 3.6 **Appendices**

### 3.6.1 ROUTE TO IEM'S CORPORATE MEMBERSHIP AND BEM'S PROFESSIONAL ENGINEER REGISTRATION

3.6.2 ACTIVITY FLOW DIAGRAM ON THE IEM'S LOG BOOK TRAINING SCHEME

