**THE INSTITUTION OF ENGINEERS, MALAYSIA**

Bangunan Ingenieur, Lots 60 & 62, Jalan 52/4,  P.O. Box 223,  Jalan Sultan,  46720Petaling Jaya
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# IEM

# Engineering Technologist Member Guidelines

# for Applicants and Candidates

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**THE INSTITUTION OF ENGINEERS, MALAYSIA**

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**I        THE ASSESSMENT GUIDELINES**

**1.        Definition**

This IEM Engineering Technologist Competency Assessment Standard consists of eighteen (18) Competency Elements that aregrouped under five (5) broad Competency Categories:

A. Knowledge and understanding

B. Technical and development of processes, systems, services and products

C. Responsibility, management or leadership

D. Communication and inter-personal skills

E. Professional commitment

The five generic areas of competence and commitment must be demonstrated in order to practice professionally. The Competency Elements are used as the basis for assessment in the Professional Interview by the IEM. Applicants will be required to provide evidence of competence against each of the seventeen (17) Competency Elements. The evidence is to be drawn from their work experience, specifically as they have encountered engineering problems or engaged in engineering activities.

A glossary of terms is included in the Guidelines.

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.    General Regulation**

2.1    The Interview for Engineering Technologist shall be held throughout the year in Malaysia in IEM Headquarters (HQ) or any of its twelve (12) Branches.

2.2    Before a person is eligible to apply to sit for Engineering Technologist  Competency Assessment, he must have gained at least three (3) years of approved experience after graduation with an accredited engineering technology degree and other requirements as prescribed. The experience should be in planning, engineering execution and management of such works as are comprised within theprofession of an engineering technologist, or relevant experience under the IEM Engineering Competency Development.

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2.3   The Engineering Technologist Competency Assessment Process consists of two stages:

**Stage 1**: Submission of Assessment Application Documents for documentary review of competency evidence to assess Applicant's eligibility and readiness for the Engineering Technologist Competency Assessment

**Stage 2**: In-person assessment of Candidate that consists of an oral examination as well as writing of one essay on Code of Professional Conduct.

2.4   An Applicant for Engineering Technologist Competency Assessment must submit one copy of Engineering Technologist Member Application Form together with the following:

- Two (2) sets of Training and Experience Report (Portfolio of Evidence);

- Technical Report; and

- Competency Assessment fees
    - ✓ Application Fee (stage 1); and
    - ✓ Assessment Fee (stage 2).

2.5   During Stage 1 of the process, if any of the competency evidence or Technical Report is assessed to be inadequate, the Applicant will be asked to resubmit supplementary documents. IEM Secretariat will inform him of the areas of shortcomings.

2.6   The Applicant will have to resubmit the supplementary documents within two (2) months upon receiving the notification letter. If documentary review of the competency evidence or Technical Report is deemed inadequate after two (2) times of resubmission, the Applicant would not be eligible to proceed to Stage 2. The documentation submitted by the Applicant will be returned and Stage 2 fee be refunded.

2.7   Upon satisfactory documentary review of the competency evidence and Technical Report, the Applicant will be informed in writing on his eligibility to attend the Engineering Technologist Competency Assessment, which consists of essay writing session and oral interview (face-to-face or virtual).

The IEM Secretariat shall notify the Candidate of the date, time and place of the Competency Assessment.

## 3.   Condition of Submitted Documents

3.1   Application Documents have to be submitted in the following conditions:

- The form should be word-processed and submitted electronically using a minimum font size of 9

- Alternatively, the form should be type-written using black ink

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## II.   PREPARATION OF DOCUMENTS

1.   Engineering Technologist Member **Application Form**

This section shall guide the Applicant on how the form should be presented.

### 1.1.   Part A: Personal Details

- Provide your personal details including your contact address

- Choose your preferred venue for Interview

- Choose the preferred language for the Engineering Technologist Competency Assessment in either English or Bahasa Malaysia. Upon making the choice, the entire Competency Assessment shall be conducted in the selected language, including the various forms, technical report, oral interview and the written essay.

### 1.2   Part B: Discipline of Engineering Technologist Applied

- Provide your engineering discipline as per in the BEM's certificate as Engineering Technologist

### 1.3   Part C: Membership

- Provide your IEM Graduate/Engineering Technologist Membership Number

### 1.4   Part D: Current Employment

- Complete details of current employment

### 1.5   Part E: Your Expertise

- Tick the main sector and sub-sector most relevant to you and your area of expertise. For "Others", please specify them accurately.

- Specify the engineering discipline as registered with "Board of Engineers Malaysia" (BEM) and attach a certified copy of BEM Registration Certificate for Engineering Technologist as evidence.

### 1.6   Part F: Tertiary Education

- List the details of all your academic qualifications awarded

- Give details of any formally assessed work-based learning acquired

- Attach a copy of your documents, certified by one of your Supporters as a true copy of the original.

### 1.7   Part G: Professional Development or Training Schemes

- Give details of any formal or structured training or professional development programmes you have completed.

- Specify the competencies gained (refer to the eighteen competency elements) and quote the scheme reference numbers and the names of accrediting institutes, if applicable.

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### 1.8    Part I: Relevant Career History

- Provide details of your work experience in chronological order starting from your first postings upon graduation from your institute of higher learning. For each of your posting, indicate the followings:

    ✓   Duration of posting and job title

    ✓   Name and address of employer

    ✓   Your main responsibilities, tasks and achievements

For each posting, give evidence on what you have done rather than what the job requires you to do, focusing on answering to the <u>eighteen (18) competency elements</u>. You may give an extended description of your role, or the role that is most relevant to demonstrate your competence, giving details of your responsibilities and contributions.

### 1.9    Part K: Declaration

- Initial each and every page of your application form. Sign and date the application, confirming that the statements given are true to the best of your knowledge.

- Declare that you do not plagiarise your application. Understand that plagiarising will render the application null and void, and you may be barred from professional interview.

- Make sure you only sign the declaration after all your supporters have signed.

### 1.10   Part L: Supporters' Details

- IEM Bylaws requires your application to be supported and signed by not less than two (2) Corporate Members of whom at least one (1) shall be a Fellow of the Institution and a Member or an Engineering Technologist Member.

- Since Supporters will be required to confirm your suitability for  Corporate  Membership, your chosen Supporters should know you well and be convinced, through direct or personal experience, that you are suitable to be elected or transferred to the grade of E.T.I.E.M. The Supporters typically have detailed and up-to-date knowledge of your work so that all the information in the application can be verified.

- Your chosen Supporters may be a selection of the followings:
    ✓   Professional Engineer registered with Board of Engineers Malaysia
    ✓   Corporate Member of IEM
    ✓   Applicant's Mentor under IEM Engineering Competency Development

- At least one of the Supporters must be of the same engineering discipline; and preferably from the same organisation as that of the Applicant.

- The Supporters should be working at a senior level to the Applicant, preferably for at least two years, and with direct knowledge of the Applicant's work, role and responsibilities. In the event that the above is not available, the current line manager, or employer in higher organizational hierarchy, may act as Supporter, provided he is a Corporate Member of IEM, Engineering Technologist Member of IEM or equivalent.

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■ It is important to choose a lead Supporter, who can assist you in the process of the application, including the advice of filling up the Application Form, presenting Portfolio of Evidence in the Training & Experience Report, drafting the Technical Report, preparing for the oral and written examination.

## 2. Training and Experience Report (Portfolio of Evidence)

2.1 This section shall guide Applicant on how to prepare the Training and Experience Report in the form of Portfolio of Evidence, which the Applicant is required to submit two copies together with Engineering Technologist Member Application Form.

2.2 The Applicant is required to provide evidence for each of the five (5) Competency Categories A, B, C, D and E, covering the eighteen (18) competency elements, which are used as a basis for assessing the Applicant when he applies to sit for the Assessment. The evidence written for each competency category should typically be around 300-500 words, excluding appendices and attachments.

2.3 The Applicant has to cross-reference with "Part I: Relevant Career History of Engineering Technologist Form" when preparing the Training and Experience Report. Typically, the Applicant has to transcribe the evidence from his career history to all the relevant competency categories. In doing so, the Applicant has to provide an extended description of his role, responsibilities and achievements relevant to the competency category to which a piece of evidence is transcribed. The Applicant has to indicate the tasks encountered in the course of his work experience, describing the related engineering activities, problems encountered and their resolutions. This will form the portfolio of evidence for the competence gained under each competency category.

2.4 The evidence should be given in a clear and concise manner detailing only the essential facts as proof of competencies. The Applicant may attach relevant documentation to support the evidence of competency, initialing/signing on each page of the attached documentation. The supporting documentation should also be clearly referenced. The evidence of competencies shall be assessed by MAB for his eligibility or readiness to sit for the Engineering Technologist Competency Assessment.

2.5 Applicant should take note that the right-hand column denotes the revision reference and its date of re-submission of the evidence; hence the column should be left blank in the first submission. When any evidence for any of the categories is found to be inadequate, Applicant will be asked to re-submit the evidence. The revision reference and its date of submission will then be logged in the right-hand column.

2.6 Applicant should get the Supporter to endorse the evidence and initial/sign on every page of the form, including the supporting documentation.

## 3. Technical Report

3.1 This section is intended for the Applicant to prepare for Technical Report in support of his application to sit for Engineering Technologist Competency Assessment.

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3.2     The Applicant is required to submit two (2) copies of Technical Report together with the Engineering Technologist Member Application Form.

3.3     The Technical Report shall demonstrate that the Applicant has attained the engineering knowledge, understanding, and application in his engineering discipline, or sub-discipline at the level necessary to underpin the technical competences required to become an Engineering Technologist Member of IEM.

3.4     Although there is no fixed format for Technical/Project Report, it is strongly recommended that the Applicant shall ensure that the Report contains some essential parts which are inclusive of, but not limited to the following:
- A list of contents, including the appendices.
- A brief executive summary as a preamble.
- A column on the right of each and every page of the Report for the Supporter  or Supervising Engineer to certify.
- A checklist at the end of the Report for the Applicant to check, sign and confirm all documentations submitted in the report by him

3.5     The content of the Report must be technical in nature. A pure management study is not acceptable. The scope of the Technical/Project Report shall depend upon the academic/ professional qualifications and practical training, experience and achievement.

3.6     Applicant can prepare the Technical/Project Report basing on the work(s) or project(s) from the Applicant's portfolio of evidence or career history that best demonstrates Competency Categories A and B. This should typically represent the engineering project or work area where the Applicant has gained substantive technical expertise.

3.7     The Technical Report should typically have 2,000 – 4,000 words, excluding appendices and attachments. It should describe particular project(s) or work(s) (or part thereof) in which the Applicant played a leading role, in some or all of the elements. Applicant must indicate clearly his role in the development and management of the project(s) or work(s) by giving the background to the important decisions for which he was responsible or to which he made a significant contribution.

3.8     Numerical analyses, cost data drawings or other relevant additional documentation should be included as appropriate to support solutions/decisions described in the Report. Any appendices or attachments are not included in the word-count, but they should be bound into the Report.

3.9     While the Report may include or be largely based upon technical reports or design studies or research works written as part of the Applicant's normal employment, it must include a commentary identifying the contribution the reported work has made to the Applicant's technicalformation and highlighting where and how engineering principles have been applied to solve problems.

3.10    It is essential that the drawings and document submitted shall be the work of the Applicant  in the ordinary course of his  permanent/contractual (long term) employment. If only a portion of the Documents has been prepared by the Applicant, this must be clearly indicated and certified.

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3.11 The Technical Report should be comprehensive, clear and concise; enough to give sufficient evidence of the Applicant's personal technical contribution to the engineering work(s) or project(s). Applicant should initial/sign on every page of the Report.

3.12 The Technical Report should be submitted with supporting sheets, calculations tables, charts, diagrams and/or drawings duly certified. It may include one or more of the following:

- Technical or Project Work

- Feasibility study

- Research and development work

- Operations and maintenance work

- Other engineering work

### 4. Technical / Project Work

Report on Technical or Project Work shall include the following:

a. Working drawings (to appropriate readable scale that is accepted as the norm in the Applicant's engineering discipline or sub-discipline); and

b. Engineering analysis and calculations relating to one or more of the Applicant's technical/project works. Computer-aided analysis shall be accompanied by 'manual calculations' that forms part of the verification process; and

c. Project works specifications or other project descriptions

d. Relevant reports

### 5. Feasibility Study

Report on feasibility study shall include the following:

a. Technical Analysis

b. Relevant drawings that convey essential features and details of an engineering system

c. Specifications to which Applicant has contributed for project execution.

### 6. Research and Development Work

a. Description of the research and development work detailing the planning, execution (methodology) and deliverables of the work that clearly demonstrate sound application of engineering principles.

b. Details of progressive pilot or prototyping work from computer and/or laboratory models shall also be submitted.

c. The work actually carried out by the Candidate, appended with any engineering document.

d. A critical appraisal of any research experiments or systems which may not be the work of the Candidate may be included.

e. The Report, if extracted from the candidate's PhD or Master's Thesis, has to contain significant practical industrial application.

### 7. Operation and Maintenance Work

a. A detailed description of the operations of the plant or system together with the maintenance schedule, which the Candidate has formulated or designed.

b. In his submission, he should clearly indicate his contribution which would demonstrate a

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sound understanding of the engineering principles and their application.

   c. A critical appraisal of the engineering system which may not be the work of the Candidate should be included.

   d. Details of modifications made to the existing system which are the work of the Candidate should also be submitted.

### III    The Assessment

### 1.    Introduction

1.1    The Engineering Technologist Competency Assessment will consist of two parts, namely:

   i.    The Oral Assessment

   ii.    The Written Examination

1.2    The Candidate must complete the two parts in order to satisfy the Engineering Technologist Competency Assessment's requirements.

1.3    Engineering Technologist Competency Assessment will be conducted by two (2) experienced IEM Corporate Members or Engineering Technologist Member, who are trained for this purpose.

1.4    IEM Secretariat will normally help in arranging for the Assessment by coordinating with both the Interviewers and the Candidate regarding the date, time and venue.

1.5    Once the dates of the essay writing and oral interview have been agreed and fixed, the Candidate shall have to abide by it.

1.6    Candidate may request for postponement of the Oral Interview, if he can provide valid reasons that are acceptable to the Interviewers. However, postponement can only be considered if it is within less thantwo (2) months from the original date of Assessment, otherwise it shall render the interview null and void; and the Candidate shall have to make a fresh application.

### 2.    Conflict of Interest

2.1    Candidate should not be interviewed by any of the following:

- Supporter for the application
- A person who has verified Candidate's application form
- A person employed in the same or related organisation as the Candidate
- A person who has close family relationship with the Candidate
- A person who is a close friend of the Candidate
- Any person who may have a conflict of interest, either for or against the Candidate

2.2    It is the Candidate's ethical duty to request for a change of Interviewers before the Interview, if one or more of the above-mentioned conditions exist.

### 3.    Oral Assessment

3.1    The Oral interview will normally be allocated about one hour for each Candidate.

3.2    Candidate should arrive at the venue for Interview at least 15 minutes before the start of the Interview to allow time to settle down and get ready.

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3.3   While there is a need to be flexible in the Interview, the format is typically arranged as follows:
   - Introduction
   - 15-Minute Presentation by Candidate
   - About 30 – 45 Minutes of "Questions & Answers" Session
   - Conclusion

3.4   The Interview will be conducted in the selected language, either in English or Bahasa Malaysia.

3.5   Candidate will be required to show some form of photo-identification at the Interview Session. This is to ensure the right Candidate is examined.

**Presentation**

- The presentation will be allocated 15 minutes. You are expected to not exceed the allocated time.

- The content of the presentation should be based on a piece of work or project from your Training & Experience Report (Portfolio of Evidence Form) that best demonstrates Competency Categories A and B. This should be concise, enough to give key points of your personal technical contribution to the work or project presented.

- The presentation format is your choice. This may involve one or more of the following:
  - ✓ A computer-based presentation such as PowerPoint presentation (Typically 5 slides)
  - ✓ A paper based presentation
  - ✓ A verbal presentation without any other aids.

- It is important that you discuss with the Secretariat to help arrange the use of visual aids. IEM may not be able to guarantee facilities to support all audio, visual or IT requirements.

**Question & Answer**

- Interviewers will generally use the career history of your application form as an agenda for the Assessment. They will encourage you to talk about your experience in chronological order to draw out evidence of competence during the discussion.

- You should be prepared to explain the technical content of your work as the Interviewers will probe specific competence areas.

- You should also be prepared to expand other aspects of your work including leadership & management, communication & interpersonal skills, etc.

- Matters related to commercial sensitivity or governed by the Official Secrets Act are unlikely to be an essential part of the Assessment. You will not be expected to divulge them.

- Interviewers will normally cover the full range of competencies by the end of the Oral Interview. They will ask questions in a clear and concise manner. You will have to make sure that you understand the questions first before attempting to give your answer.

**Opportunity for Final Evidence**

- At the end of the Oral Examination, Candidate will be given the opportunity to:
  - ✓ Raise any points which he feels have not been covered during the discussion
  - ✓ Give any evidence which he feels may help the assessment of his case
  - ✓ Ask any questions you may have

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**End of Oral Interview**

- Candidate will NOT be allowed to change the engineering discipline on which it has been examined, to the one thought to be more appropriate.

- Similarly, the Interviewers are NOT allowed to do likewise.

## 4. Written Examination

4.1 Candidate will be notified on the date and time which will be conducted exam hall/room which will be determined by IEM. The duration of the essay will be 90 minutes.

4.2 The essay on Regulation of Professional Conduct (Ethics) will be assessed based on two main Competency Categories, namely P-Ethical knowledge and application (P1, P2, P3) and W- Writing proficiency (W1, W2, W3):

| Essay on Ethics | |
|---|---|
| P | Professional Ethics Knowledge and Application |
| P1 | Understands IEM / BEM Code of Professional Conduct and contemporary ethical issues in the engineering profession |
| P2 | Takes professional & ethical responsibility in actual work situation to enhance the honour and reputation of the engineering profession |
| P3 | Understands the impact of engineering solutions in the larger context like society, environment, health, safety, and public welfare |
| W | Written Communication / Proficiency |
| W1 | Understands the question clearly and answers with suitable technical contents and relevant examples |
| W2 | Presents the answer with good structure, proper heading and paragraphing as well as conciseness, coherence and cohesion |
| W3 | Presents the answer legibly with good grammar, lexicon, spelling, and punctuation |

4.3 Candidate is required to answer the question in handwriting. Candidate is not permitted to bring any form of reference materials or use electronic devices with content accessibility such as notebook, portable computer or mobile phones, etc. during essay writing.

## 5. Preparing for Engineering Technologist Assessment

5.1 The best way to prepare for the Assessment is to review your Application Form, Training and Experience Report (Portfolio of Evidence), and Technical Report.

5.2 Identify and determine which of your experience best demonstrate the required range of competencies. Highlight your personal contribution.

5.3 Candidate is required to bring along the following:
- A copy of the completed l Engineering Technologist Application Form
- A copy of the completed Training and Experience Report (Portfolio of Evidence)
- Photo-identification, such as MyKad, driving licence with photograph, passport or other valid documents.

5.4 In rare cases where the Candidate has physical writing impairment, he should communicate with IEM Secretariat to check if special arrangement could be made. IEM may not be able to give any guarantee.

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### 6. Post Assessment

6.1   The Interviewers will NOT indicate the result of the Assessment to the Candidate, as they have to go through the due process.

6.2   At the end of the Assessment, the Interviewers will make a report to IEM Secretariat.  Candidate will be informed of the outcome when a decision is made by relevant Committees in IEM.

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### IV  Glossary

- **Applicant** means an engineering technologist, who has made an application to attend the Engineering Technologist Competency Assessment conducted by IEM after satisfying the necessary requirements.

  Applicant should typically have gained an accredited engineering technology degree or equivalent and subsequently accumulated a minimum of three-years practical training and experience as an engineering technologist.

- **BEM** means "Board of Engineers Malaysia", a body corporate under the Ministry of Works Malaysia to regulate the engineering profession in Malaysia.

- **BEM** Engineering Technologist means an engineering technologist registered with BEM after graduating with an accredited engineering technology degree.

- *With regard to Chemical Engineering or related engineering discipline, the "Material and Energy Balance" in lieu could be considered as the Bill of Quantities.*

- **Candidate** means an Applicant who has been assessed and approved by IEM to sit for the Engineering Technologist Competency Assessment.

  Candidate should have been registered with BEM as Engineering Technologist under four (4) **major Engineering Branches,** namely Chemical Engineering, Civil Engineering, Electrical Engineering, and Mechanical Engineering.

- **Competency** means the ability to carry out a task to an effective standard, of which the achievement requires the necessary level of knowledge, understanding and skill, as well as a professional attitude. It is part of the requirement that must be demonstrated in order for an Applicant to be admitted as an Engineering Technologist Member of IEM. The formation process of professional competence generally involves a combination of formal education and practical training and experience.

- **Competency Categories** means a group of Competency Elements that are classified under a broad area of professional competency required for the assessment in Engineering Technologist Competency Assessment. The five groups of Competency Elements form a matrix to enable Interviewers to evaluate and assess the Candidates.

- **Competency Elements** means a component of Competency Category that describes aspecific area of professional competency against which the  Candidate is assessed for his level of attainment based on a specific set of standard criteria. Applicants will be required to provide evidence of competence against each of the eighteen Competency Elements.

- **Competency Evidence** means the evidence drawn from the work experience of Applicant as he has encountered engineering problems or engaged in engineering activities.

- **Competency Model** consists of eighteen "Competency Elements" grouped under five "Competency Categories". The Model demonstrates the underpinning knowledge and understanding of engineering fundamentals, application abilities, leadership and management skills, interpersonal skills, and personal commitment to the profession that must be demonstrated in order to practice professionally.

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- **Engineering Sub Branches** means the sub-disciplines of engineering technology studies in which the Applicant has practiced during his training due to his unique nature of work, such as water resources, structural, highway, transportation, geotechnical, construction, environmental, building services, manufacturing, aeronautical, aerospace, automotive, industrial, marine, naval architecture, electronic, telecommunication, Computer, chemical, petroleum, process, etc.

- **Engineering Experience** means the period, in man-months, of training and experience of the Applicant in an engineering work, inclusive of lecturing in institutions of higher learning. All trainings during the period have to be supervised by a Supervising Engineer or his Mentor.

  Applicant can gain professional engineering competency, and the evidence thereof, in the course of his training, especially in providing solution to engineering problems. From the compilation of his Portfolio of Evidence, the Applicant can self-assess whether he is ready to make an application to attend his Engineering Technologist Competency Assessment.

  **Operation and Maintenance Candidate** means the Applicant whose experience lies in the operation and maintenance of engineering plant or system, which forms the prerequisite for him to qualify to attend the Competency Assessment.

  **Research and Development Experience** means the Applicant who has been engaged in engineering research work as a prerequisite for his practical experience in engineering to qualify him to attend his Engineering Technologist Interview, and is doing research at the time of his application to sit for the Competency Assessment.

- **Engineering Technologists & Engineering Technicians Competency Assessment Board** means the Sub Committee within the Institution assigned by the IEM Council to manage the Competency Assessment.

- **Essay Writing** means the second session of the Engineering Technologist Competency Assessment, whereby the Candidate is required to write one essay, Essay on ode of Professional Conduct.

- **IEM** is the abbreviation for "The Institution of Engineers, Malaysia".

- **IEM Branch** means one of the twelve regional IEM branches, from which  Applicant may chose as his preferred venue for his Professional Interview, other at the IEM HQ. The twelve (12) IEM Branches are Kedah/Perlis Branch, Penang Branch, Perak Branch, Negeri Sembilan Branch, Melaka Branch, Southern Branch, Pahang Branch, Terengganu Branch, Kelantan Branch, Sabah Branch, Miri Branch and Sarawak Branch.

- **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 Council** means the elected governing body of IEM with the mandate to direct and manage all property and affairs of the Institution, including conducting the Professional Interview for the purpose of admission or transfer as Member of IEM (MIEM).

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Tel: 03-79684001/4002   Fax: 03-79577678   E-mail: sec@iem.org.my

- **IEM** Engineering Competency Development means the training scheme organized by IEM to provide guidance to IEM Graduate Member on a proper practical training so as to ensure that such training fulfils the requirements for his transfer to the grade of MIEM.

  Through the IEM Engineering Competency Development, the IEM Graduate Member shall become a Mentee who would obtain his practical experience under the supervision of a Mentor, for a minimum period of three (3) years. The IEM Graduate Member (Mentee) shall maintain an Engineering Competency Development log book of his training, which shall be endorsed quarterly by his Mentor. Every year the log book has to be submitted to IEM for record and endorsement.

- **IEM Monthly Bulletin** means the monthly bulletin called 'Jurutera' published by IEM to communicate to its members on matters affecting the Institution in particular and the engineering profession in general.

  The names of all Engineering Technologist Candidates will be published in this bulletin. If any IEM Corporate Member has any reason as to why any of the Candidates is  not a fit and proper person for election or transfer as a Member of IEM (MIEM), he should communicate in writing to the Honorary Secretary within a month from the date of publication.

  The names of successful Candidates will be published after the IEM Council has approved the election/transfer to the grade of M.T.I.E.M.

- **MAB or Membership Application Board** means the Sub Committee in IEM designated to assess the "IEM Engineering Technologist Member Application Document" submitted by Applicant before deciding whether or not Applicant is ready to proceed for the Engineering Technologist Competency Assessment.

- **Mentor** means an IEM Corporate Member who has been assigned to supervise the practical training of an IEM Engineering Technologist Graduate Member under Engineering Competency Development. The mentor is typically of the same discipline as that of the mentee.

- **Oral Examination** is the first session of the Engineering Technologist Competency Assessment, whereby the Candidate will be assessed by two (2) Interviewers to determine whether he has attained the level of competence for election/transfer to the grade of M.T.I.E.M.

- **Peer Review** is a process by which the professional engineering competence of Candidate is checked by IEM Corporate Members (the would-be peers of Candidate) in the same engineering discipline to ensure that he meets the necessary standards before he is admitted as one of their peers.

- **Portfolio of Evidence** means a collection of verified facts and/or documents that Applicant must compile and present as the required evidence to show his competence against the eighteen (18) competency elements grouped under five competency categories.

- **Interviewers** means the two IEM Corporate Members assigned by the Engineering Technologists & Engineering Technicians Competency Assessment Board to conduct the Engineering Technologist/Engineering Technician Competency Assessment.

- **Professional Engineer** means the professional title given to engineers who meet  the standard

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of competence required by the Board of Engineer Malaysia for registration as a professional engineer. Becoming a MIEM satisfies the requirement to be registered as the professional engineer under subsection 10(2) (a) (ii) (c) of the Registration of Engineers Act 1967 (Revised 2015).

▪ Engineering Technologist **Member Application Documents** means the Applicant Forms, Training and Experience Report (Portfolio of Evidence) and the Technical Report submitted by Applicant with the intention to sit for the Engineering Technologist Competency Assessment.

▪ **Supervising Engineer** means an IEM Corporate Member, or equivalent professional affiliation, of the same discipline who has personal knowledge of the Applicant/Candidate's roles and responsibility within the same organization or company.

▪ **Technical Report** means the one of the two reports to be submitted by Applicant when submitting his Engineering Technologist Member Application Documents. The report shall follow the requirement of the relevant major engineering branches; and may include one or more of these areas of work, namely design work, feasibility study, research and development work, operations and maintenance work, or other engineering work.

▪ **Training and Experience Report (Portfolio of Evidence)** means a prescribed format in which Applicant is required to compile and present a collection of facts and documents as the required evidence to show his competence gained during his work experience against the eighteen competency elements grouped under five competency categories. This shall form a basis for assessing his readiness to sit for the Engineering Technologist Competency Assessment.

▪ **The Institution of Engineers, Malaysia ("the Institution")** is a society established to promote and advance the science and profession of engineering in any or all its disciplines and to facilitate the exchange of information and ideas related to engineering.