The Institution of Engineers, Malaysia

Presentation:

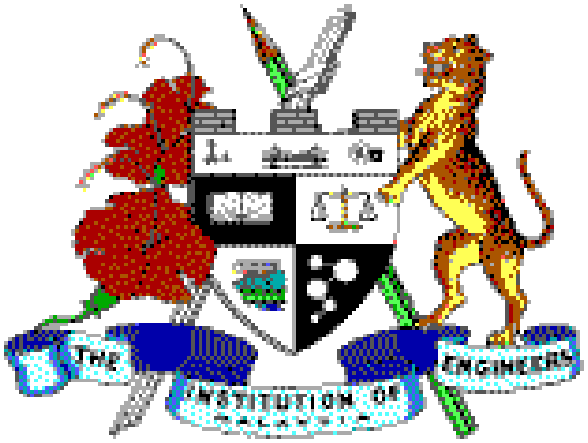
"The Route to MIEM and PE"

Institution of Engineers
Malaysia

SPEAKER'S PROFILE

Ir Sukhairul Nizam Abdul Razak received his early education at Sekolah Menengah Methodist ACS Klang Selangor. He later furthered his study at University Technology of Malaysia (UTM Skudai) in Bachelor of Mechanical Engineering (Aeronautical). He also received Master in Business Administration from Charles Sturt University Australia. He is also registered as Professional Mechanical Engineer with practicing certificate since 2001 with Board of Engineers Malaysia (BEM, C110757) and also registered as Graduate Technologist with MBOT as well auditor for ETAC under EAD Board of Engineers Malaysia (BEM). His professional career started at Proton's Manufacturing since 1995 as RND's design engineer follow with other positions in various departments in Proton Edar for nearly 18 years. As a creative, dynamic body design engineer, Branch Sales Manager, Manager Sales Standard , Manager Warranty Operations, Manager Equipment Tools & Calibration, Head of Division Office and then worked with Accenture Malaysia for Daimler Group's project established Product Expert & CSTAR for both sales and after sales in all Mercedes Benz's dealership in Malaysia. He is also Senior Lecturer for City University Malaysia and currently as freelance consultant as well active in IEM as follows:

Council Members – Ordinary Representative for The Institution of Engineers Malaysia 2019/2020, 2020/2021 & 2021/2022 session
Standing Committee on Activities IEM session 2019/2020
Standing Committee on Welfare and Service Matters IEM session 2019/2020
Secretary for Sub Committee on Membership Drive and Promotions IEM session 2019/2020
Chairman for Sub Committee on Service Benefits (Insurance Scheme) session 2019/2020
Sub Committee on Employment Survey session 2019/2020
Committee Member for Engineering Education Technical Division IEM 2014-2019



This is a presentation of
THE INSTITUTION OF ENGINEERS MALAYSIA (IEM)

Established in 1959 …
the primary function of IEM is to promote and advance
the science and profession of engineering in any or all of its disciplines;
and to facilitate the exchange of information and ideas related to engineering

The Institution of Engineers Malaysia commonly known as the IEM

The Institution is a professional learned society, formed in 1959 and registered with the Registrar of Societies

Objective of the Institution :

"To promote and advance the science and profession of all aspects of engineering."

IEM aims to achieve the objective by:

- Raising the status and further advancing the interest of the engineering profession;
- Promoting honest practice, discouraging malpractice and settling disputed points of practice and ethics;
- Encouraging the study of engineering, collecting and disseminating engineering information, and improving the general and technical knowledge of persons engaged in the profession;
- Initiating and promoting improvements in legislation and its administration by deputations, submissions and representations.

Route to become MIEM and PE

Types of Membership within IEM

- Student Member – open to all engineering students;
- Associate Member – recognized diploma in engineering from a university/polytechnic/ college or has obtained equivalent qualification;
- Affiliate Member - graduate of Applied Science and related to engineering fields from recognised university/college and active in specialised engineering field;
- Incorporated Member – unrecognized engineering degree. *(Not listed in the EAC's Accredited List)*;
- Graduate Member – open to all practicing engineers "registered with BEM";
- Companion – open to all practicing engineers "registered with BEM" who has not less than 8 years of experience in engineering;
- Member (MIEM) – upgrading of experienced engineers leading to Professional Engineer status;
- Senior Member – transfer from Member (MIEM) with not less than 15 years experience;
- Fellow Member – upgrading with not less than 5 years as MIEM;
- Honorary Member – distinguish person who contributed to engineering profession.

STATISTICS

Individual

:: Professional Engineer with Practising Certificate	9159
:: Professional Engineer	4347
:: Accredited Checker Structural	12
:: Accredited Checker Geotechnical	13
:: Graduate Engineer	134786
:: Engineering Technologist	4106
:: Inspector of Works	6084

Consultancy Company

:: Body Corporate	1149
:: Multidisciplinary	51
:: Partnership	230
:: Sole Proprietorship	1232

Data from BEM's website as of 28th July 2020

MEMBERSHIP

The Institution of Engineers, Malaysia

Total of Membership as of JULY 2020

41,209

(including Students)

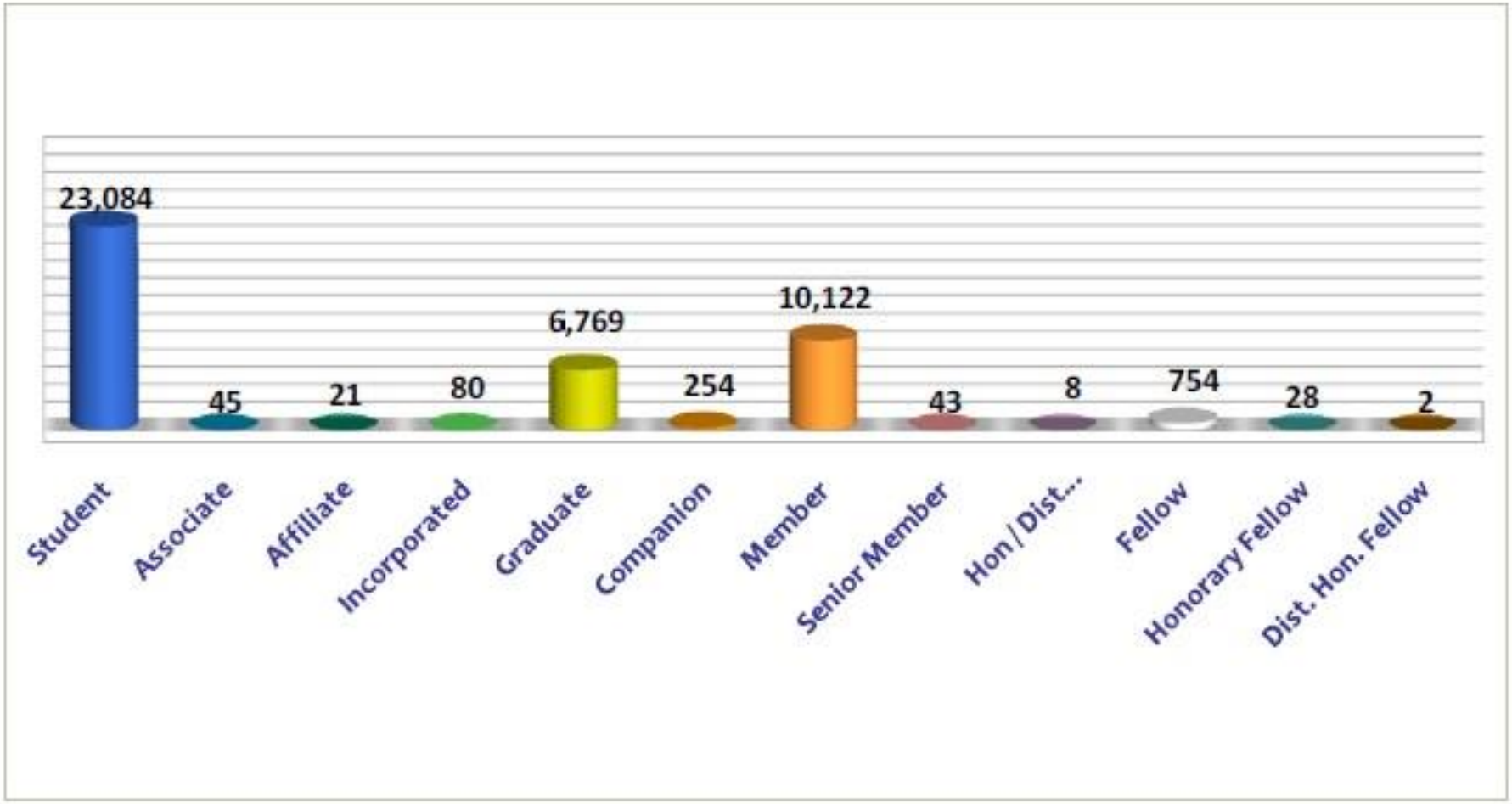
MEMBERSHIP GRADES

IEM
The Institution of Engineers, Malaysia

FELLOW	MEMBER	GRADUATE	STUDENT
772	11,658	9,482	31,420

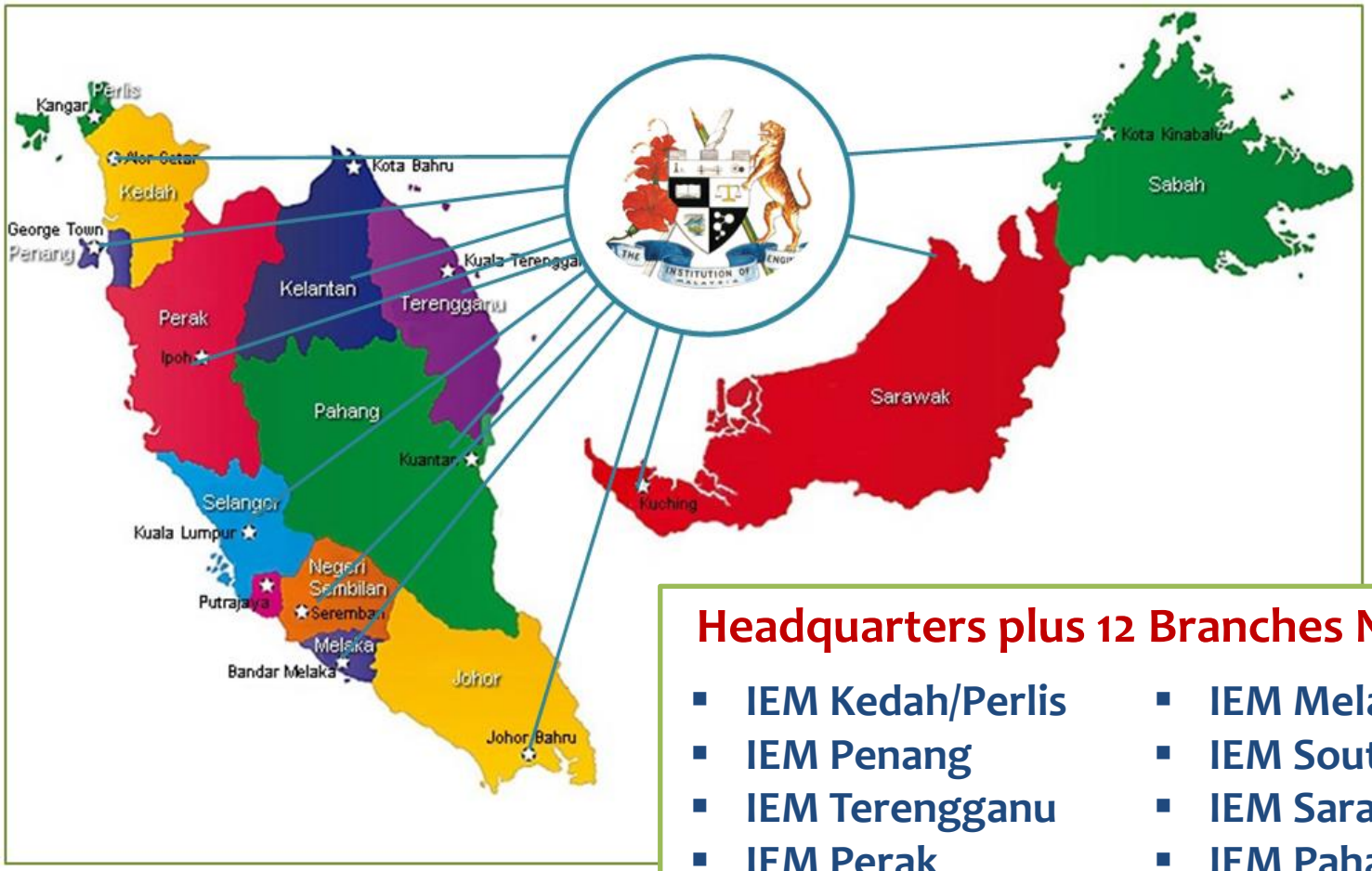
Other grades : Distinguished Honorary Fellow, Honorary Fellow, Honorary Member, Incorporated Member, Affiliate Member and Associate Member

Membership Grades as of June 2020



IEM BRANCHES

The Institution of Engineers, Malaysia



Headquarters plus 12 Branches Nationwide:

- IEM Kedah/Perlis
- IEM Penang
- IEM Terengganu
- IEM Perak
- IEM Miri
- IEM Sabah
- IEM Melaka
- IEM Southern
- IEM Sarawak
- IEM Pahang
- IEM Negeri Sembilan
- IEM Kelantan

TECHNICAL DIVISIONS OF IEM

Civil related

- Civil & Structural
- Geotechnical
- Water Resources
- Highway & Transportation
- Environmental
- Tunneling & Underground Space

Electrical related

- Electrical
- Electronic

Mechanical related

- Mechanical
- Building Services
- Oil, Gas & Mining
- Marine & Naval Architecture

Others

- Chemical
- Engineering Education
- Project Management
- Agricultural and Food

Special Interest Group:

- **Information & Communications Technology**
- **Consulting Engineering**
- **Public Sector Engineers**
- **Seniors**
- **Urban Engineering Development**

IEM Sections

IEM
The Institution of Engineers, Malaysia

YES
THE INSTITUTION OF ENGINEERS, MALAYSIA

IEM Young Engineers Section

WE
WOMEN ENGINEERS
The Institution of Engineers, Malaysia

IEM Women Engineers Section

Services Provided by IEM

1. Courses and training
2. Educational and Social Activities
3. Publications
4. Library
5. Networking & Contacts
6. Assistance in Finance & Technical

Route to become MIEM and PE

Only Students pursuing Engineering Degree or Diploma can become **Student Members** of IEM

Primary *BENEFITS* as IEM Student Member

- ☑ Networking with practicing engineers.
- ☑ Technical Talks, Courses and Technical Visits.
- ☑ Potential Industrial Training attachments – IEM keeps a list of organisation for Industrial training for Student Members.
- ☑ Potential future job employment.

Route to become MIEM and PE

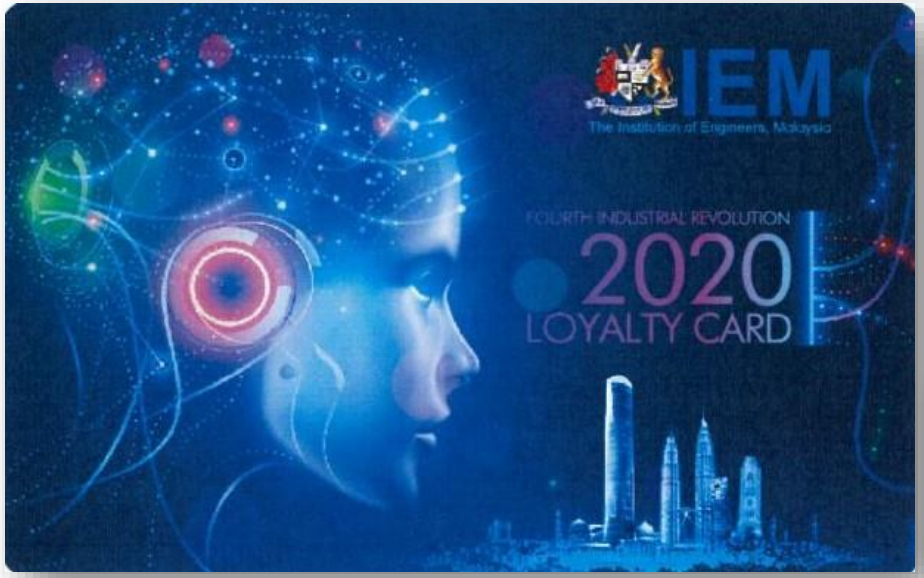
Primary *BENEFITS* as IEM Member

- ☑ Establish **networking group** amongst engineers.
- ☑ Attend Technical Talks, Seminars or Courses and Technical Visits.
- ☑ Attend Professional Development Program (PDP).
- ☑ Route to Professional Engineer.
- ☑ Attend Continuing Professional Development (CPD).

Web portal: ***www.myiem.org.my***

The Institution of Engineers, Malaysia

IEM Merchant Discount Programs



Automotive
Mercedes Benz
BMW & Mini
Audi
Volvo
Renault
NAZA
(Kia,Peugeot,Citroen,DS)

Health & Fitness
Institut Jantung Negara
BP Healthcare
HSC Medical Center
Celebrity Fitness & Fitness First

Fashion
World of Sports
Red Wings
Kybun

Leisure
Ampang Superbowl

Optical
Focus Point
Menara Optometry

Insurance
Zurich General Insurance
AON Brokers

This card is the property of The Institution of Engineers, Malaysia and is valid for the period of **1st January 2020 to 31st December 2020**. This card is to be presented together with the IEM membership card in order to be eligible for discounts from the above organisations/merchants. If lost or found, please report to IEM at:

Bangunan Ingenieur, c/o PO Box 223 (Jalan Sulten), Lot 60 Jalan 52/4, 46200 Petaling Jaya, Selangor
Tel: 03-79684001/2 Fax: 03-79577678
URL: www.myiem.org.my Email: sec@iem.org.my

MyIEM Merchant

IEM Telegram

IEM

Route to Become

Member of Institution of Engineers Malaysia (MIEM) and Professional Engineer (PE) with BEM

STATUTORY REQUIREMENTS

- The academic requirement for registration as graduate engineer is the engineering programme (typically 4 years) that has been accredited by the Engineering Accreditation Council (EAC) Malaysia.

- The Registration of Engineers Act (REA) mandates engineering graduates to register with Board of Engineers Malaysia (BEM) as Graduate Engineer after completing an engineering programme.

Route to become MIEM and PE

BEM Graduate Engineer

ENGINEERING IN MALAYSIA

- The engineering profession in Malaysia is regulated by the ***Registration of Engineers Act***, 1967 (revised in 1974, 1987, 1989, 2002, 2007, 2015)

Route to become MIEM and PE

Understanding Between Roles of BEM and IEM

Board of Engineers Malaysia (BEM)

- A regulatory body for engineering practices in Malaysia; set-up by the Malaysian government under the Registration of Engineers Act, 1967 (REA) to administer and to enforce the REA and its provisions to protect public interest;

- Only Graduate Engineers and Professional Engineers registered with the Board of Engineers, Malaysia (BEM) are allowed to practice engineering in Malaysia;

- The REA mandates engineering graduates to register with BEM as a **Graduate Engineer** upon graduation.

Route to become MIEM and PE

Understanding Between Roles of BEM and IEM

Board of Engineers Malaysia (BEM)

Section 7(2)*(a)*

"a Graduate Engineer who is registered with the Board may, subject to section 8, take up employment which requires him to perform professional engineering services".

Section 24*(h)* – PENALTY

*"**Any person,** sole proprietorship, partnership or body corporate **who contravenes** section 7 or 8, or **subsection** 7A(1), **24A(1)** or 24B(5) **shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding fifty thousand ringgit, or to imprisonment for a term not exceeding three years, or to both**.".*

Route to become MIEM and PE

Understanding Between Roles of BEM and IEM

Institution of Engineers Malaysia (IEM)

- A *learned society* where engineers of various disciplines in every sector of economic activities come together for mutual helpfulness and sharing of experiences and technologies;
- IEM works closely with BEM to enhance the status of engineers in the society;
- Establish social linkage between engineers and help young engineers to establish themselves in their career;
- In general, a learned institution for practicing engineers in Malaysia for networking, technical learning and socializing.

Route to become MIEM and PE

Registration with BEM

- Graduate Engineer (Grad.Eng)
- Professional Engineer (Carry the title “Ir.”/ the abbreviation “P.Eng.” after his name)
- Accredited Checker
- Engineering Technologist (Eng.Tech.)
- Inspector of Works (IOW)

Website: www.bem.org.my

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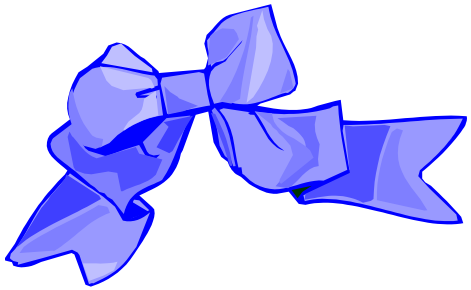
Route to become MIEM and PE

The close co-operation between
the BEM and the IEM
has resulted in the recognition of the
M.I.E.M. as satisfying the criteria for
P.Eng registration with the BEM



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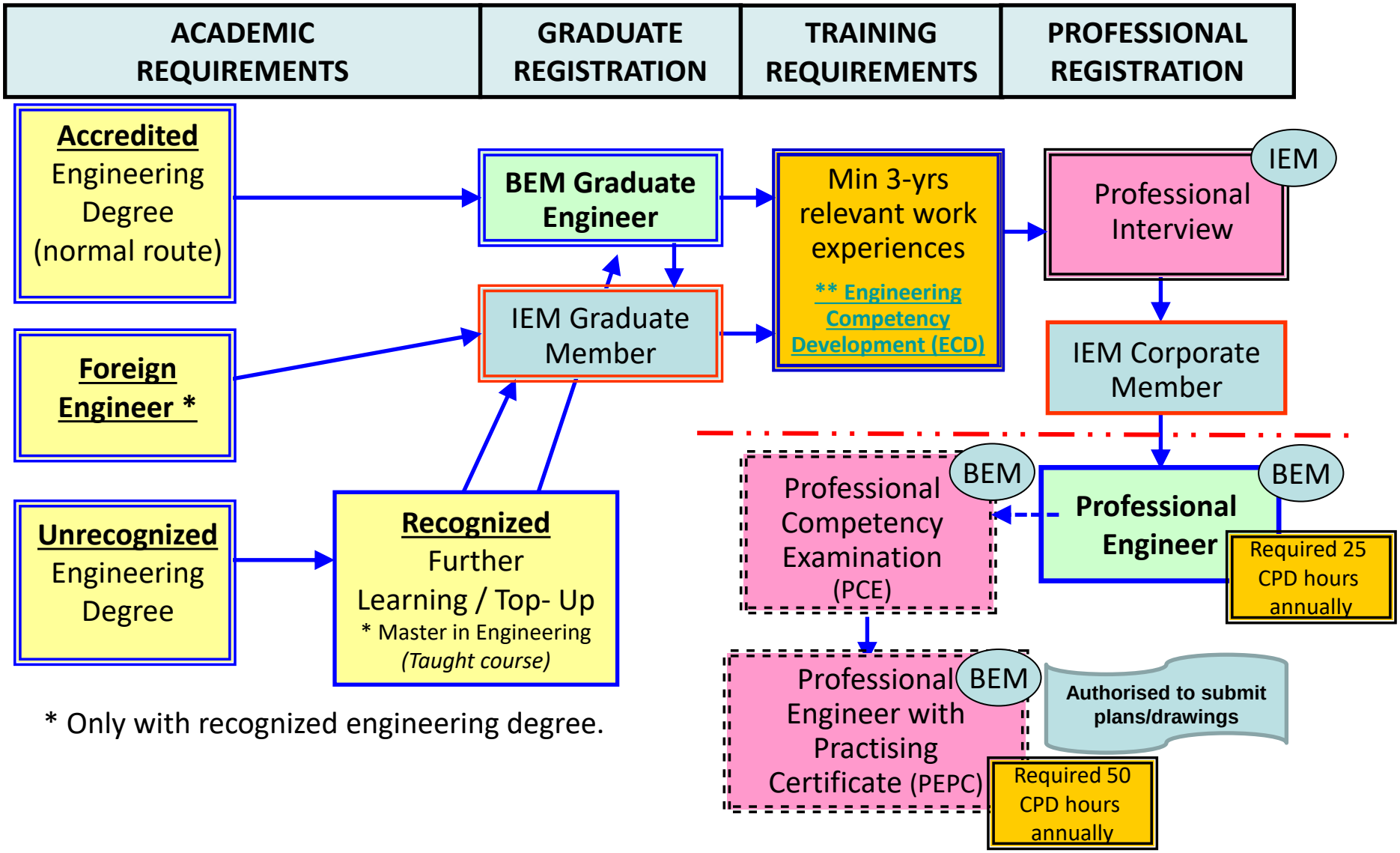
Route to become MIEM and PE



* Only with recognized engineering degree.

Route to become MIEM and PE

Graduate Engineer

↓

Professional Engineer

↓

Professional Engineer with Practicing Certificate

✓ ***Note**: Foreign professionals can only practice in Malaysia with several conditions including undergoing interview and examination*

✓ ***Note**: Both PE and PE with PC are subjected to annual renewal i.e. Continuous Professional Development (CPD) requirements by BEM.*

Practicing Certificate ➡
Licence Condition ➡
Professional Competency Exam (PCE)

The Institution of Engineers, Malaysia

Route to become MIEM and PE

MALAYSIAN PUBLIC & PRIVATE UNIVERSITIES
Engineering Programs are

accredited by
Engineering Accreditation Council (EAC)

Accredited
Engineering
Degree
(normal route)

Route to become MIEM and PE

ABOUT EAC

Accreditation of engineering programs by universities in Malaysia is established by **Engineering Accreditation Council (EAC)** on a program content review and audit basis

Route to become MIEM and PE

- Engineering Accreditation Council (EAC) is the body delegated by BEM for accreditation of engineering degrees;
- Members of EAC comprise of representatives from:

1. The Board of Engineers Malaysia (BEM);
2. The Institution of Engineers, Malaysia (IEM);
3. The Malaysian Qualification Agency (MQA), and
4. The Public Services Department / Jabatan Perkhidmatan Awam Malaysia (JPA).

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The Institution of Engineers, Malaysia

Route to become MIEM and PE

Engineering Accreditation Council (EAC)

The objective of accreditation is to ensure that graduates of the accredited engineering programs satisfy the minimum academic requirements for registration as a graduate engineer with:

- the Board of Engineers Malaysia (BEM), and
- for admission to graduate membership of the Institution of Engineers Malaysia (IEM)

The Institution of Engineers, Malaysia

Route to become MIEM and PE

FOREIGN UNIVERSITIES

are accredited by their respective engineering councils/ bodies

- **United Kingdom (UK)**

  Engineering Council, United Kingdom; www.engc.org.uk

- **United States of America (USA)**

  ABET, USA; www.abet.org

- **Australia**

  IEAust, Australia; www.engineersaustralia.org.au

- **New Zealand**

  IPENZ, New Zealand; www.ipenz.org.nz

Route to become MIEM and PE

Foreign Engineer Membership

- All foreign engineers practicing in Malaysia and with recognised engineering qualifications must register with the Board of Engineer (BEM) as a ***Graduate Engineer*** *(in accordance to the amendments to the REA 1967 (revised 2015)*
- With a "recognized engineering degree", foreign engineer → Graduate or *Corporate member* with IEM
- With a "non-recognized engineering degree", foreign engineer → *Incorporated Member* with IEM

Route to become MIEM and PE

Un-Recognized Degree

Definitions

- Local universities: unaccredited engineering programs by EAC;
- For foreign universities: all Washington Accord universities and/or in BEM list of countries which are not accredited by their home “EAC-equivalent”.

Unrecognized Engineering Degree

Route to become MIEM and PE

Un-Recognized Degree Membership

- All Un-Recognized Engineering Degree need **Further Learning / Top-Up** in order for the degree to be acceptable by BEM;
- Further Learning / Top-Up can be in the form of a "Master Degree" in Engineering by Taught-Course;
- Un-Recognized engineering degree holder can join IEM as an Incorporated Member.

Route to become MIEM and PE

Engineering Competency Development (ECD)

Min 3-yrs relevant work experiences

**** Engineering Competency Development (ECD)**

The Institution of Engineers, Malaysia

Route to become MIEM and PE

Engineering Competency Development (ECD)

For Graduate Engineer NOT having a Professional Engineer (PE) of same discipline within the organization

☑ Nominate a Mentor; PE of same discipline from other organization (preferably same industry BUT not mandatory);

☑ Mentor can be obtained from IEM; Graduate Member having access of pool of PE to choose from.

Route to become MIEM and PE

IEM

REQUIREMENTS

IEM

Professional Interview

PRACTICAL EXPERIENCE

- A Graduate Engineer must obtain at least three (3) years of relevant practical training and experience in engineering before they are eligible to apply to sit for Professional Interview (PI) to become MIEM.

- At least one (1) year of the practical training and experience must be obtained under the supervision of a Professional Engineer (PE) in the same or allied branch of engineering as that practised by the Graduate Engineer.

The Institution of Engineers, Malaysia

Route to become MIEM and PE

Professional Experiences

Graduates are required to obtain professional experiences in:-

☑ Planning, design, execution or management of engineering works; or

☑ Engineering research or the **teaching of engineering.**

At least 3 years before eligible to apply for Corporate Membership of the IEM and subsequent Professional Engineer registration with the BEM.

REQUIREMENTS FOR PI APPLICATION

- After meeting the following requirements:
  - An accredited engineering degree
  - Registration as a BEM graduate engineer
  - At least three years of practical training & experience

- A graduate is ready to apply to sit for professional interview (PI).

Route to become MIEM and PE

Professional Experiences

For Civil Engineering, candidates must obtain professional experiences in:-

- ☑ Minimum 12 months of **site** experience
- ☑ Minimum 12 months of **design** experience

Route to become MIEM and PE

Professional Experiences

For other Engineering;

☑ Electrical Engineering : min 6 months of site experience and min 12 months of design experience;

☑ Mechanical Engineering : min 12 months of site experience and min 6 months of design experience;

☑ Electronic Engineering : min 12 months of site experience and min 6 months of design experience;

☑ Chemical Engineering : min 6 months of both site experience and design experience.

Route to become MIEM and PE

Professional Experiences

Graduates with international work experiences

- ☑ The "foreign" experience *MUST* be certified by a Professional Engineer or its equivalent of the respective country and counter-signed by a local MIEM/PE (usually the current employer)
- ☑ BEM requires the candidate to have gained at least *1-year* local working experience

WHAT IS ASSESSED IN PI?
The professional interview will assess Competence.

What is Competence?

- 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 demontrated in order for an Applicant to be admitted as Corporate Member of IEM. The formation process of professional competence generally involves a combination of forma education and practical training and experience.

Outcome Based PI

The **Outcome Based PI** consists of two parts, namely:

Part 1 : **Documentary review** of competency evidence to assess Applicant's eligibility and readiness for Professional Interview.

Part 2 : **In-person assessment** of Candidate that consists of a face-to-face oral interview as well as writing two essays.

More Balanced Assessment

Instead of focusing mainly on technical aspects, this method has a more holistic approach in assessing competence:

- Underpinning knowledge & understanding of a branch or sub-branch of engineering.
- Skills in design and development of solution to engineering problem.
- People Skills - management, leadership as well as communication and interpersonal skills.
- Attitude / Professional Commitment

Clarifying Concerns

- ✓ Each Candidate has unique work experience because of the nature of job.
- ✓ Most Candidates are able to develop an acceptable or satisfactory level of attainment in the majority of Competency Elements.
- ✓ Nature of work sometimes makes Candidates lacking in a few Competency Elements; but they can still pass PI if they are good in most of the other Elements.

KEY TERMS

Competency Category - A group of Competency Elements that are classified under a broad area of professional competency required for the assessment in Professional interview.

Competency Element - A component of Competency Category that describes a specific area of professional competency against which the PI Candidate is assessed for his level of attainment based on the evidence demonstrated against a specific set of standard criteria.

Key Assessment Features

This **assessment** method is both **competence-based and evidence-based** with the following features:

✓Measure the knowledge, understanding, skills and professional attitude necessary for the PI Candidates to perform effectively – **competence.**

✓Use rubrics to differentiate competence level – **clear assessment criteria.**

✓Use standard competency descriptors as the yardsticks to minimize individual subjectivity – **more objective.**

✓Award competence level based on the evidence demonstrated by PI Candidates – **evidence based.**

COMPETENCY CATEGORIES - ORAL INTERVIEW

A - KNOWLEDGE AND UNDERSTANDING

B - DESIGN & DEVELOPMENT OF PROCESS, SYSTEM, SERVICE & PRODUCT

C - RESPONSIBILITIES, MANAGEMENT AND LEADERSHIP

D – COMMUNICATION & INTERPERSONAL SKILLS

E - PROFESSIONAL COMMITMENT

EVIDENCE BASED ASSESSMENT

LEVEL	GENERAL STATEMENT OF ATTAINMENT
1	Little or no evidence of competence
2	Some evidence of competence with shortfalls
3	Acceptable or satisfactory level of evidence
4	Strong level of evidence

COMPETENCY CATEGORY A

A - Use a combination of general and specialist engineering knowledge and understanding as a basis for optimising the application of existing and emerging technology.

A1 - Maintain and extend personal knowledge, understanding and technical skills in own and allied fields of specialisation.

A2 - Learn and broaden personal knowledge and experience in the technology, products or services related to own specialisation, preferably with a view to improvement.

A3 - Comprehend and apply knowledge and understanding of the relevant engineering codes, standards, specifications, applications, especially those appropriate to local context, requirements and application.

COMPETENCY CATEGORY B

B - Apply appropriate theoretical and practical methods to the analysis and solution of engineering problem.

B1 - Identify projects and/or opportunities/problems.

B2 - Conduct appropriate research and undertake design and development of engineering solutions.

B3 - Implement design solutions and evaluate their effectiveness.
Note that the design and site experience is generally covered in Competency Category B

COMPETENCY CATEGORY C

C - Provide technical and commercial management.

C1 - Plan for effective project or job task implementation.

C2 - Plan, budget, organise, direct and control tasks, people and resources.

C3 - Lead teams and develop staff to meet changing technical and/ or managerial needs.

C4 - Bring about continuous improvement through quality management.

COMPETENCY CATEGORY D

D - Demonstrate effective interpersonal skills.

D1 - Communicate in National or English Language with others at all levels.

D2 - Present and discuss proposals.

D3 - Demonstrate personal and social skills.

COMPETENCY CATEGORY E

E - Demonstrate a personal commitment to professional standards, recognizing obligations to society, the profession and the environment.

E1 - Comply with relevant codes of conduct.

E2 - Manage and apply safe systems of work.

E3 - Undertake engineering activities in a way that contributes to sustainable development.

E4 - Carry out and record continuing professional development (CPD) necessary to maintain and enhance competence in own area of practice.

E5 - Understand the legal matters pertaining to engineering profession.

ASSESSMENT

- **Against each of the 18 Competency Elements, the Applicants/Candidates will be required to provide evidence drawn from their work experience, specifically as they have encountered engineering problems or engaged in engineering activities.**

- **The competence level awarded by PI interviewers for each Competency Element will be based on the evidence demonstrated by Applicant/Candidate in the document submitted and also during oral interview.**

Route to become MIEM and PE

Professional Interview

Applying for MIEM

1) Submit application form.
2) Make payment to attend Professional Interview.

   2.1 IEM Graduate Member: RM200 (Interview Fee) +RM100 (Processing Fee)

   2.2 Non-Member: RM 300 (Interview Fee)+RM100 (Processing fee)

3) Upon successful, make payment for membership application .

   3.1 Transfer (IEM > 2 years): RM100 + RM100 + RM155 (annual fee)

   3.2 Transfer (IEM < 2 years): RM250 + RM100 + RM155 (annual fee)

   3.3 Election: RM350 + RM100 + RM155 (annual fee)

Route to become MIEM and PE

Professional Interview

Requirements

1) Submission of APPLICATION FORMS :

- **IEM PI A100** (*Professional Interview Application Form*)
- **IEM PI A300** (*MIEM Application Form*)
- **IEM PI A401** (*Training & Experience-Portfolio of Evidence*)
- **IEM PI Annexe A401** (Design & Site Experience)
- **IEM PI C300** (*Development Action Plan*)

2) Submission of TECHNICAL REPORT :

Detailing of execution of project undertaken – 2 sets (to be submitted together with the application form)

3) Attend interview

4) Write 2 sets of essay on

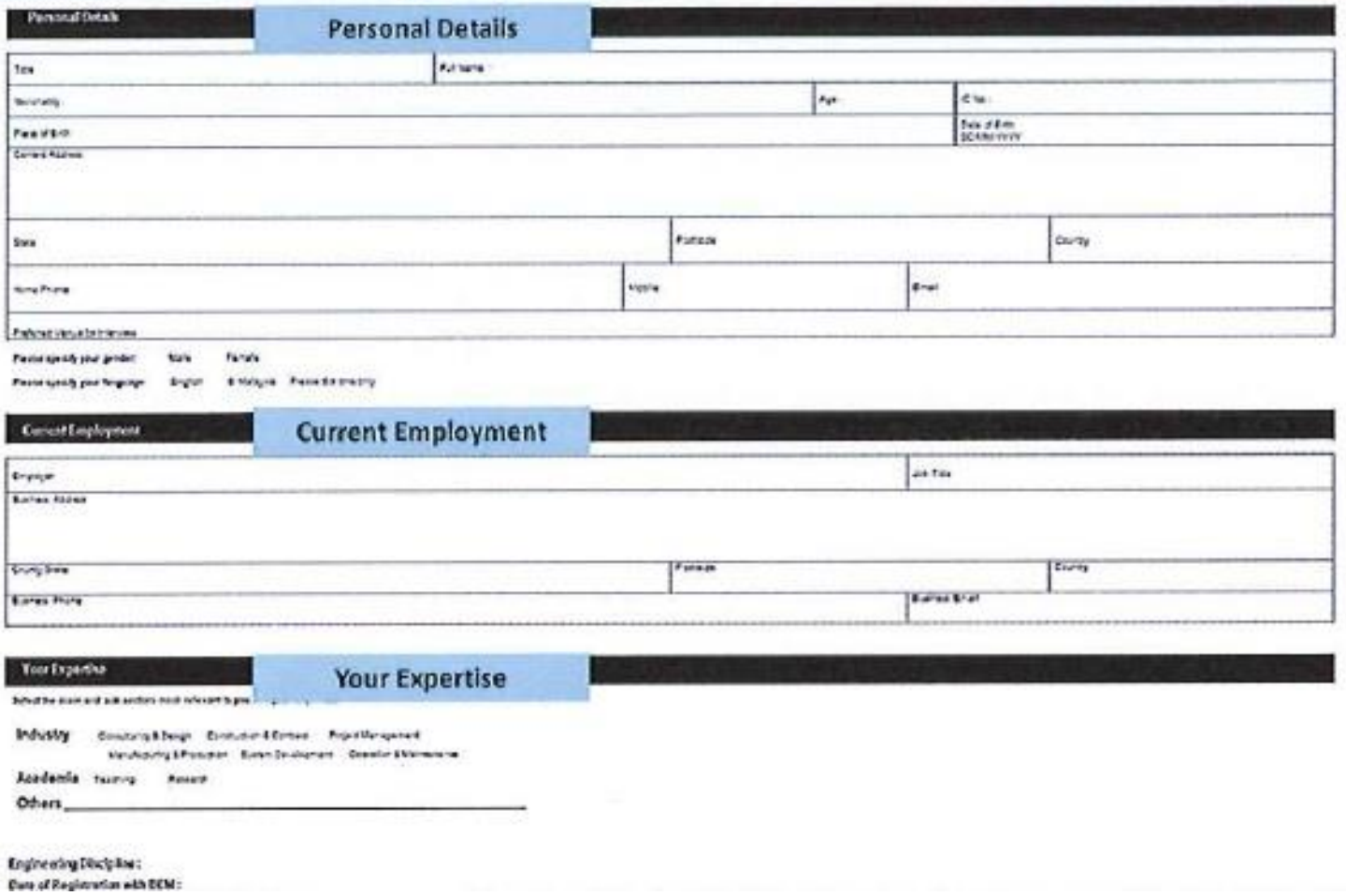
4.1 Submitted TECHNICAL REPORT(as per item 2)

4.2 Regulations on Professional Conduct (listed topics)

Note that the Technical Report must be submitted up-front, together with the Application Form and Training & Experience Report.

IEM P1 A100
PI APPLICATION FORM

IEM PI A100 - PROFESSIONAL INTERVIEW APPLICATION FORM



Personal Details

Title	Full Name		
Nationality		Age	IC No.
Place of Birth			Date of Birth DD/MM/YYYY
Current Address			
State	Postcode		Country
Home Phone	Mobile	Email	
Preferred Venue to Interview			

Please specify your gender: Male Female

Please specify your language: English Bi Malaysia Please tick one only

Current Employment

Employer		Job Title
Business Address		
Country Name	Postcode	Country
Business Phone		Business Email

Your Expertise

Select the main and sub sectors most relevant to you

Industry Consultancy & Design Construction & Contract Project Management Manufacturing & Production System Development Operation & Maintenance

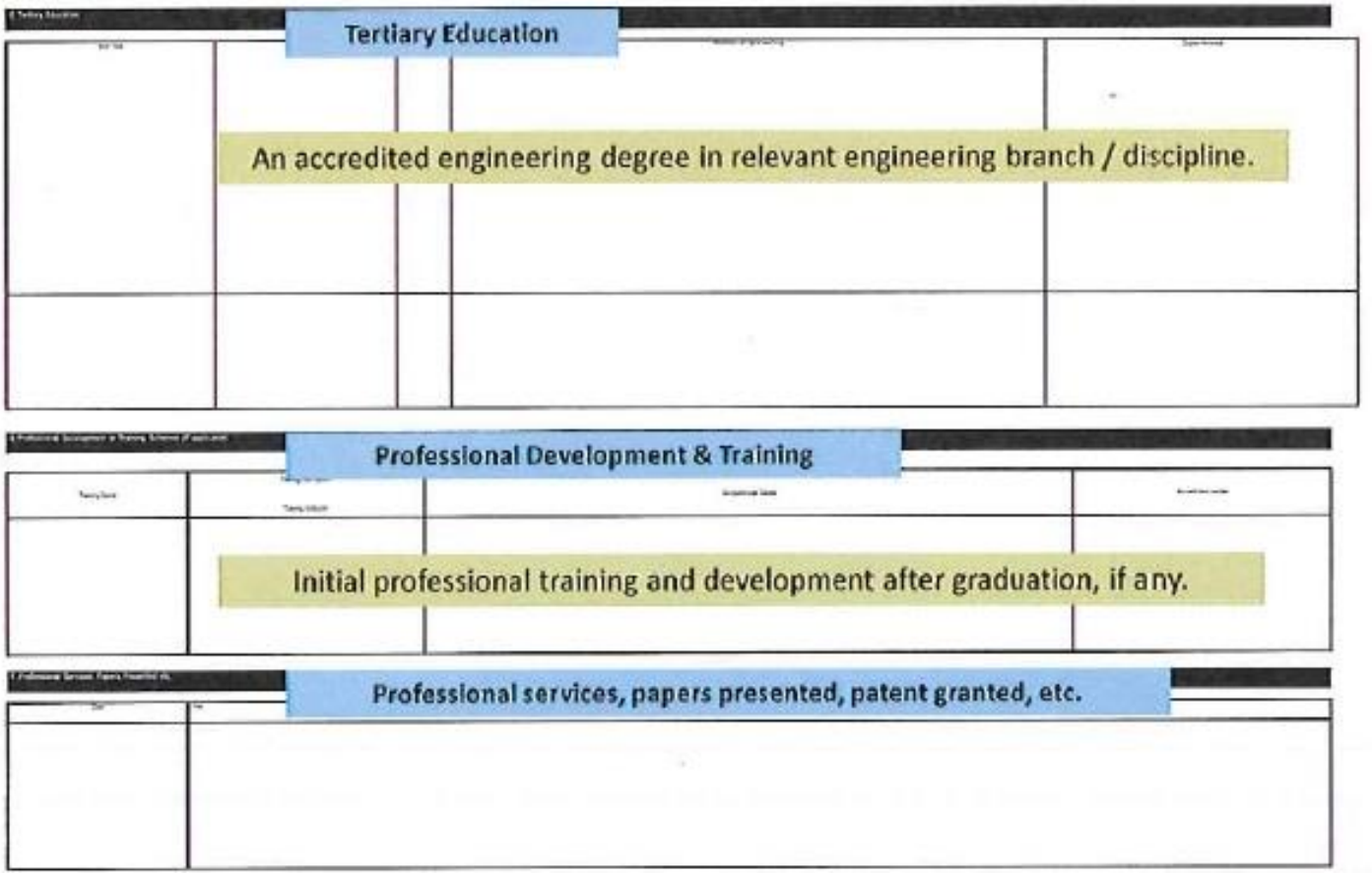
Academia Teaching Research

Others _____

Engineering Discipline:

Date of Registration with IEM:

IEM PI A100 - PROFESSIONAL INTERVIEW APPLICATION FORM



IEM PI A100 - PROFESSIONAL INTERVIEW APPLICATION FORM

Organisation Chart

Organization Chart

Organization chart generally shows the Applicant's accountability:

- ✓ Show two or three levels of authority above and below your post.
- ✓ Where in organisation hierarchy the Applicant sits?
- ✓ Who does the Applicant report to?
- ✓ Who reports to the Applicant?
- ✓ Who are the peers of the Applicant?
- ✓ Who in the organisation chart are MIEM/PE already?

IEM PI A100 - PROFESSIONAL INTERVIEW APPLICATION FORM

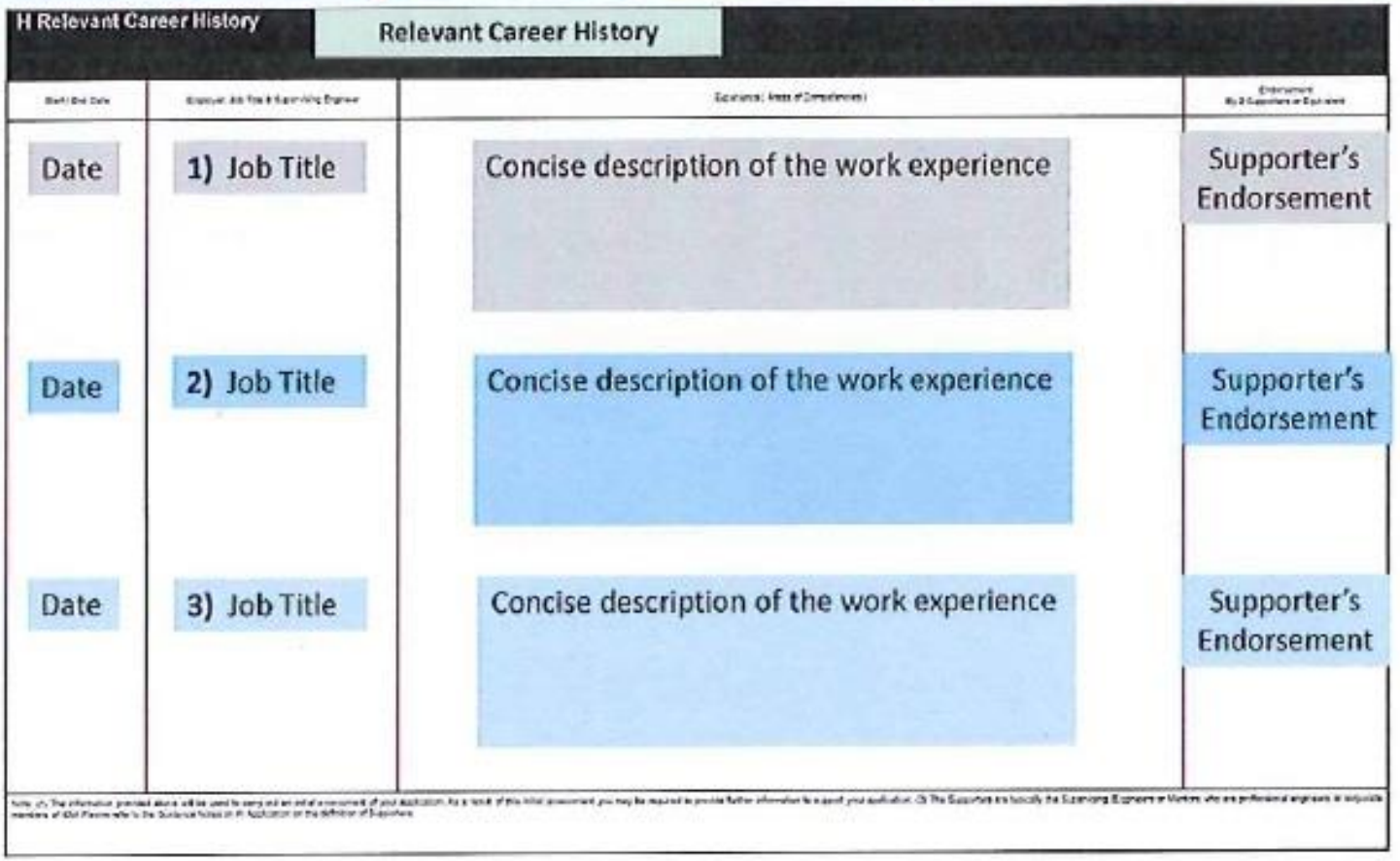
H Relevant Career History

Relevant Career History

Career History

- ✓ Provide details of work experience in chronological order.
- ✓ Summarise employment history covering all posts – title, duration, employer, etc.
- ✓ Give main responsibilities, authority and autonomy for each post.
- ✓ Present evidence of competencies as required by the Competency Model.
- ✓ Give extended description of your current role, and other roles that demonstrate the required competencies.
- ✓ Keep the evidence simple and personal; specify your own achievements.
- ✓ Give examples of how you analyze and solve engineering problems; and/or make engineering judgment / decision.
- ✓ Indicate the size and complexity of tasks / projects you have direct responsibility.
- ✓ Show you have attained the breadth and depth of practical training and experience for the professional interview.

IEM PI A100 - PROFESSIONAL INTERVIEW APPLICATION FORM



H Relevant Career History

Relevant Career History

Date	1) Job Title	Concise description of the work experience	Supporter's Endorsement
Date	2) Job Title	Concise description of the work experience	Supporter's Endorsement
Date	3) Job Title	Concise description of the work experience	Supporter's Endorsement

IEM PI A100 - PROFESSIONAL INTERVIEW APPLICATION FORM

I Declaration

Declaration

I declare that I do not plagiarise in this application. I understand and consent to the information provided on this form being processed by the IEM for its sole use and that of its associated organisations, including the Board of Engineers, Malaysia (BEM) for professional interview purpose. I declare that the statements made on this form are to the best of my knowledge true, and agree that the validity of my election shall depend upon the accuracy of the particulars contained herein. I acknowledge that in the event my qualifications are found to be non-compliant to the admission criteria of the Institution due to changes in policies or oversight at the time of admission, the Institution reserves the right to withdraw my membership. In the event of my election, I agree to comply with the Constitution, By-Laws and Regulations of the Institution for the time being in force, and understand that this is a commitment to behave ethically within my profession; please refer to IEM Website.

Signature of Candidate	Date

J Supporters' Details

Supporters' Details

I, the undersigned, support the candidate from professional knowledge as worthy of consideration for the Professional Interview and I endorse the content of this application.

Supporter 1 (mandatory)		
Name (print)	Signature (sign)	Date
Address for communication		
Postcode	Phone	Email
Professional Registration / Application e.g. P.Eng, CEng	Membership of Engineering Institutions e.g. MIEM, FIEM	
Membership Number (if applicable)		

Supporter 2 (mandatory)		
Name (print)	Signature (sign)	Date
Address for communication		
Postcode	Phone	Email
Professional Registration / Application e.g. P.Eng, CEng	Membership of Engineering Institutions e.g. MIEM, FIEM	
Membership Number (if applicable)		

Supporter 3 (optional)		
Name (print)	Signature (sign)	Date
Address for communication		
Postcode	Phone	Email
Professional Registration / Application e.g. P.Eng, CEng	Membership of Engineering Institutions e.g. MIEM, FIEM	
Membership Number (if applicable)		

PI APPLICATION SUPPORTERS

- IEM Bylaws requires the 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 or a Member of not less than (10) years' standing in The Institution.

- Since Supporters are required to confirm Applicant's suitability for Corporate Membership, the chosen Supporters should know the Applicant well and be convinced, through direct or personal experience, that the applicant is suitable to be elected or transferred to the grade of MIEM. The Supporters typically have detailed and up-to-date knowledge of the Applicant's work so that all the information in the application can be verified.

PI APPLICATION SUPPORTERS

The Supporters must be a:

- **Professional Engineer registered with BEM and**
- **Corporate Member of IEM**

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

PI APPLICATION SPONSORSHIP

- **The Supporters have the following Responsibilities:**

Satisfy themselves that the Applicant has a realistic chance of becoming an MIEM.

- **Certify that the submission is a reasonable and honest reflection of the Applicant's experiences and competencies.**

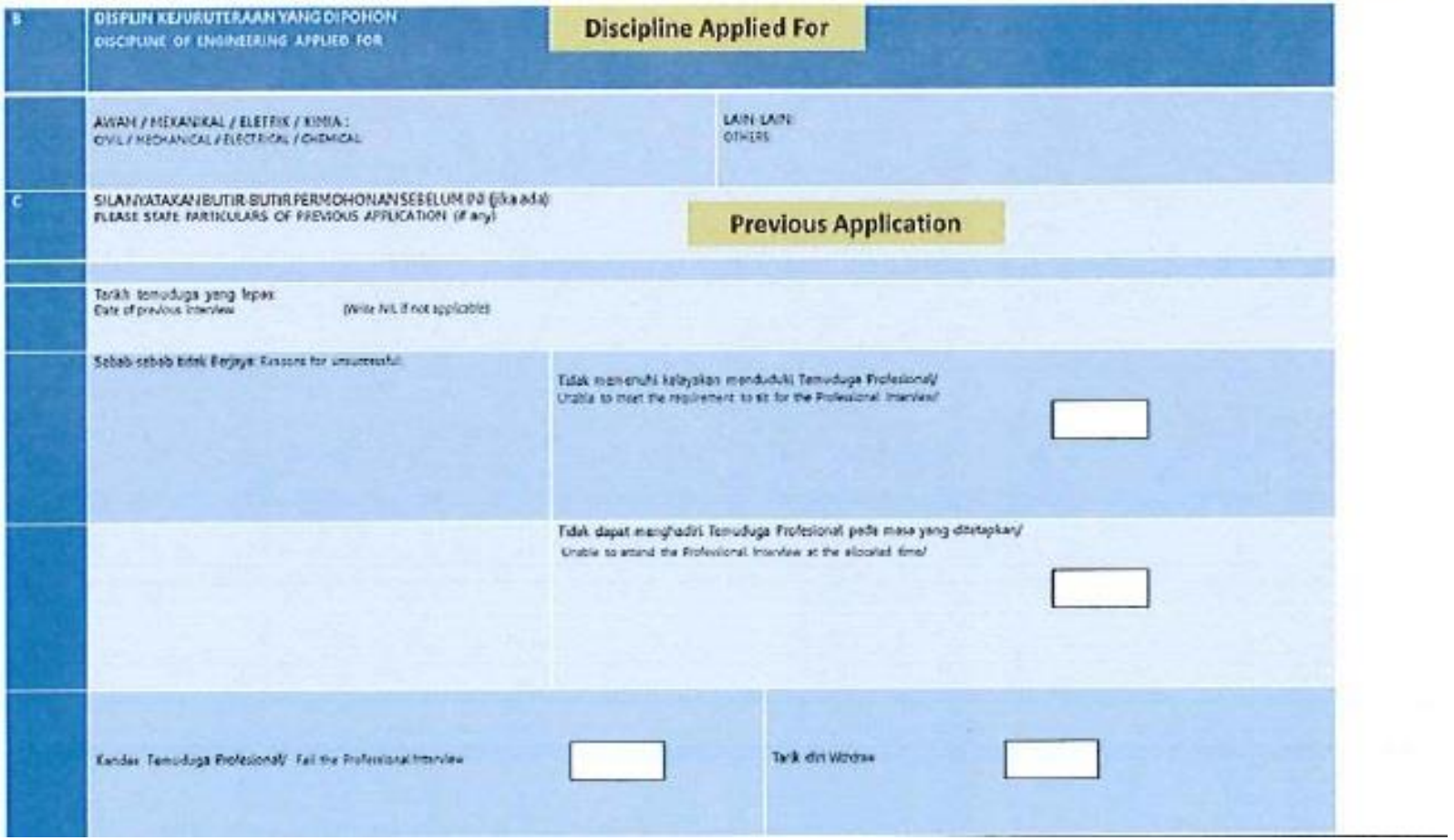
- **Ensure that they have detailed and up-to-date knowledge of the Applicant's work to verify information in the application.**

IEM P1 A300
MIEM
APPLICATION
FORM

IEM PI A300 – MIEM Application Form

A	BUTIRAN PERIBADI PERSONAL PARTICULARS	Personal Details	Personal Picture
	Nama Penuh: Full Name*		
	: (Guna huruf besar dan garis nama keluarga) (Use block Letters and underline surname)		
	Alamat: Address:		
	Bimbit : Handphone:	Email:	
	Nombor Telefon Rumah : Telephone Number: Residential:	Pejabat: Office:	
	Tempat Lahir Place of Birth:	Tarikh Lahir Date of Birth:	
	Umur: Age:	Kewarganegaran: Nationality:	Nombor K.P.: IC No:
	(Perhatian: Sebarang perubahan alamat, nombor telefon pekerjaan hendaklah diberitahu kepada IEM dengan segera) (NB. Any change of address, employment telephone number must be notified promptly to the IEM)		

IEM PI A300 – MIEM Application Form



B	DISIPLIN KEJURUTERAAN YANG DIPOHON DISCIPLINE OF ENGINEERING APPLIED FOR	**Discipline Applied For**
	AWAM / MEKANIKAL / ELEKTRIK / KIMIA : CIVIL / MECHANICAL / ELECTRICAL / CHEMICAL	LAIN-LAIN OTHERS
C	SILA NYATAKAN BUTIR-BUTIR PERMOHONAN SEBELUM INI (jika ada) PLEASE STATE PARTICULARS OF PREVIOUS APPLICATION (if any)	**Previous Application**
	Tarikh temuduga yang lepas: Date of previous interview (Write NIL if not applicable)	
	Sebab-sebab tidak Berjaya: Reasons for unsuccessful:	Tidak memenuhi kelayakan menduduki Temuduga Profesional/ Unable to meet the requirement to sit for the Professional Interview/
		Tidak dapat menghadiri Temuduga Profesional pada masa yang ditetapkan/ Unable to attend the Professional Interview at the allocated time/
	Kandas Temuduga Profesional/ Fail the Professional Interview	Tarik diri Withdraw

IEM PI A300 – MIEM Application Form

D	AHLI MEMBERSHIP **Membership**	
	NOMBORAHLI SISWAZAH/UM (Jika ada) : IEM GRADUATE MEMBERSHIP NUMBER (if any)	
E	BAYARAN PAYMENT **Payment**	
(i)	SAYASERTAKANYURAN PROSES TEMUDUGAPROFESIONAL: RM100.00 I TENDER HEREWITH THE PROFESSIONAL INTERVIEW PROCESSING FEE OF:	☐
(ii)	SAYASERTAKANYURAN TEMUDUGAPROFESIONAL: **RM200.00 untuk Ahli Siswazah IJM I TENDER HEREWITH THE INTERVIEW FEE OF: **RM200.00 for Graduate Member of IEM	☐
	**RM300.00 untuk bukan ahli IJM **RM300.00 for Non-member of IEM	☐
	** Fees is refundable if your application is not approved by the relevant Committee	

IEM PI A300 – MIEM Application Form

F	**PENGAKUAN (sila baca dengan teliti)** **DECLARATION (Please read carefully)**	**Declaration**
	Saya, yang bertandatangan di bawah, berjanji bahawa sekiranya diterima sebagai Ahli Korporat IEM, saya akan mematuhi Perlembagaan, Undang-Undang dan Peraturan-Peraturan Institusi pada masa lanya dikuatkuasakan dan saya akan menerima sebagai muktamad segala keputusan Majlis terhadap semua perkara yang dilakukan oleh Majlis setaraf dengan penuntukan Perlembagaan, Undang-Undang dan Peraturan-Peraturan. Saya berjanji akan meningkatkan objektif Institusi mengikut sebempa daya yang boleh, melainkan apabila saya menulis kepada Setiausaha Kehormat bahawa saya akan mengundurkan diri sebagai Ahli Institusi dan saya akan dibebaskan daripada tanggungjawab ini selepas menjelaskan segala hutang tunggakan yuran kepada IEM. Saya bertanggungjawab terhadap ketepatan butiran yang terkandung dalam borang permohonan ini. Saya sefuju membuat sumbangan yang munasabah kepada Tabung Perpustakaan, dan sepanjang kerjaya Profesional saya, saya akan cuba mengemukakan kepada Institusi ini penerbitan yang sesuai.	
	I, the undersigned, do hereby promise that, in the event of my election, I will be governed by the Constitution, By-Laws and Regulations of the Institution for the time being in force, and that I will accept as final and binding the decisions of the Council on all matters dealt with by them in accordance with the Provisions of the said Constitution, By-Laws and Regulations. I further undertake that I will promote the objects of the Institution as far as may be in my power, provided that whenever I shall signify in writing to the Secretary that I am desirous of withdrawing from the Institution, I shall after the payment of any arrears, which may be due from me at the period, be free from this obligation. I accept responsibility for the accuracy of the particulars contained in this application form and agree that if I am elected the validity of my election shall depend upon the accuracy of such particulars as required by the By-Laws. I will make an acceptable donation to the Library Fund, and in course of my professional career I will endeavour to present to the Institution an original communication or communication relating to engineering science or practice.	
	Saya mengakui bahawa sekiranya kelayakan saya didapati tidak sejajar dengan keperluan syarat kemasukan Institusi disebabkan perubahan polisi atau kesilapan semasa penerimaan kemasukan sebagai Ahli, maka Institusi berhak menarik balik status keahlian saya. I hereby acknowledge that in the event my qualifications are found to be non-compliant to the Admission criteria of the Institution due to changes in policies or oversight at the time of admission the Institution reserves the right to withdraw my membership.	
	Tarikh: Date:	Tandatangan Pemohon: Signature of Applicant: **Signature**

IEM PI A300 – MIEM Application Form

G	**AKTA PERLINDUNGAN DATA PERIBADI** **PERSONAL DATA PROTECTION ACT**

Personal Data Protection

Dengan penguatkuasaan Akta Perlindungan Data Peribadi 2010 mulai 15 November 2013, kami ingin memaklumkan bahawa data peribadi anda yang diberikan kepada Institusi hanya akan dipamirkan dalam Direktori IEM secara "online" dan dicetak, dengan persetujuan anda. Sila ambil perhatian bahawa IEM memastikan bahawa persetujuan anda diterima sebelum kami meneruskan untuk menerbitkan data peribadi anda di saluran komunikasi yang tersebut di atas. Di samping itu, anda mempunyai prerogatif untuk menentukan maklumat / data peribadi yang akan diterbitkan dengan menunjukkan persetujuan anda di laman web ahli dalam laman web IEM. Anda juga harus memeriksa rekod di laman utama ahli untuk memastikan data peribadi yang direkodkan adalah tepat, lengkap dan terkini. Sila log masuk ke laman utama anda di portal MyIEM di http://www.myiem.org.my.

With the enforcement of the Personal Data Protection Act 2010 from 15 November 2013, we would like to inform you that your personal data provided to the Institution will only be posted in the IEM Directory both online and printed, with your consent. Please note that IEM ensures that your consent is received before we proceed to publish your personal data in the abovementioned channels of communication.

In addition, you have the prerogative to determine the information/personal data to be published by indicating your consent in the members' homepage in the IEM website. You should also check the records in the members' homepage to ensure that the personal data recorded is accurate, complete and up-to-date. Please log-in to your homepage in the MyIEM portal at: http://www.myiem.org.my.

IEM P1 TECHNICAL REPORT

TECHNICAL REPORT

Applicant will be required to submit two (2) copies of Technical Report together with the P1 Application Form.

- **The Technical Report shall demonstrate that the Applicant has attained the engineering knowledge, understanding and application in his engineering discipline or expertise area at the level necessary to underpin the technical competencies required for MIEM/PE.**

- **Applicant can only proceed to sit the Professional Interview provided that the Technical Report has been assessed to be satisfactory.**

TECHNICAL REPORT

The Technical Report will be evaluated to ascertain:

- **The depth of technical competence in Competency Categories A and B.**

- **Adequacy of the technical profile as a whole whether the Applicant is technically competent to sit for Professional Interview.**

Generally the existing guidance for Technical Report is applicable.

TECHNICAL REPORT

Certification of Document

- Every drawing and document (supporting sheet, calculation, table, chart and diagram) wherever relevant is to be signed by the Supporter, namely Supervising Engineer or Mentor that these are the works of the Candidate. If only a portion of the Documents has been prepared by the Candidate, this must be clearly indicated.

- It is essential that the drawings and document submitted shall be the work of the Candidate in the ordinary course of his permanent or long-term contractual employment.

Route to become MIEM and PE

Professional Interview

Detailing of Work Experiences

REPORTS on trainings and work experiences; *to be verified or certified by Professional Engineer (PE)*

(must be a PE of same discipline applied within the Organization)

ALTERNATIVE

To maintain log book under the **Engineering Competency Development (ECD)** (if the graduate is not supervised by a Professional Engineer (PE) of the same or related engineering discipline)

Route to become MIEM and PE

Professional Interview

Submission of Reports

☑ **DOCUMENT** on a particular project undertaken within the engineering career; *to be verified or certified by a Professional Engineer (PE)*

☑ **DRAWINGS and/or OTHER DOCUMENTS**; *to be verified or certified by Professional Engineer (PE)*

Route to become MIEM and PE

Professional Interview

Professional Interview and Essay Writing

What being assessed

☑ Sound **understanding of engineering knowledge;**

☑ Capacity to accept **professional responsibilities;**

☑ Ability to communicate and make effective presentation.

Route to become MIEM and PE

Essay Writing During Professional Interview

- ☑ Two essays within 1½ hours each.
- ☑ Section A: on candidate's DOCUMENT submission.
- ☑ Section B: on one of the 13 Regulations on Professional Conduct topics/questions.
- ☑ Objective is to test candidate's knowledge to communicate well in language as well as to gather his/her thoughts in a clear and concise manner.

Route to become MIEM and PE

BEM

REQUIREMENTS

BEM

Competency Examination

Route to become MIEM and PE

Competency Examination

Requirements

- ☑ Pass PAE (thru BEM) or PI (thru IEM).
- ☑ Encouraged to attend minimum 60-hours of Professional Development Program (PDP) - Graduate Engineers
- ☑ Attend Professional Competency Examination *(if the PE wish to become a submitting person).*

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The Institution of Engineers, Malaysia

Route to become MIEM and PE

Professional Development Program (PDP)

(Graduate Engineers are highly encouraged to attend PDP)

60 Hours PDP

12hr: OSH and Environment

12hr: Engineering Management

12hr: Code of Ethics

Additional Learning

24hr: Courses/Seminars or Talks

in the Engineering Discipline of Candidate.

Date : 13.08.2004

BEM/RD/REG/03

NO. SIRI: 0016

BOARD OF ENGINEERS
MALAYSIA

CIRCULAR NO. 2/2005

ADDITIONAL EXPERIENCE REQUIRED OF GRADUATE ENGINEERS TO BE ENTITLED TO APPLY FOR PROFESSIONAL ENGINEER REGISTRATION

Regulation 22, Registration of Engineers Regulation 1990 (Amendment) 2003 reads:

22. (1) The practical experience that a Graduate Engineer is required to obtain under section 10(1) of the Act so as to be entitled to apply for registration as a Professional Engineer shall be carried out to the satisfaction of the Board for a period of at least three years, and shall include the following –

*(a) the Graduate Engineer **must undergo** –*

(i) at least two years of general training that will provide a sound basis for professional development; and

(ii) at least one year of professional career development and training providing wide exposure to the various managerial and technical expertise in engineering practice

where at least one year of the training must be obtained in Malaysia under the supervision of a Professional Engineer in the same branch of engineering as that practiced by the Graduate Engineer, although Professional Engineers in other related branches of engineering may be acceptable with prior approval of the Board; and

*(b) the Graduate Engineer **must have** satisfactory attendance in courses and professional development programmes determined by the Board, and conducted by the Board or institutions approved or accredited by the Board.*

Route to become MIEM and PE

Continuing Professional Development (CPD)

(As from **1/1/2006**, all registered PEs are subjected to obtain)

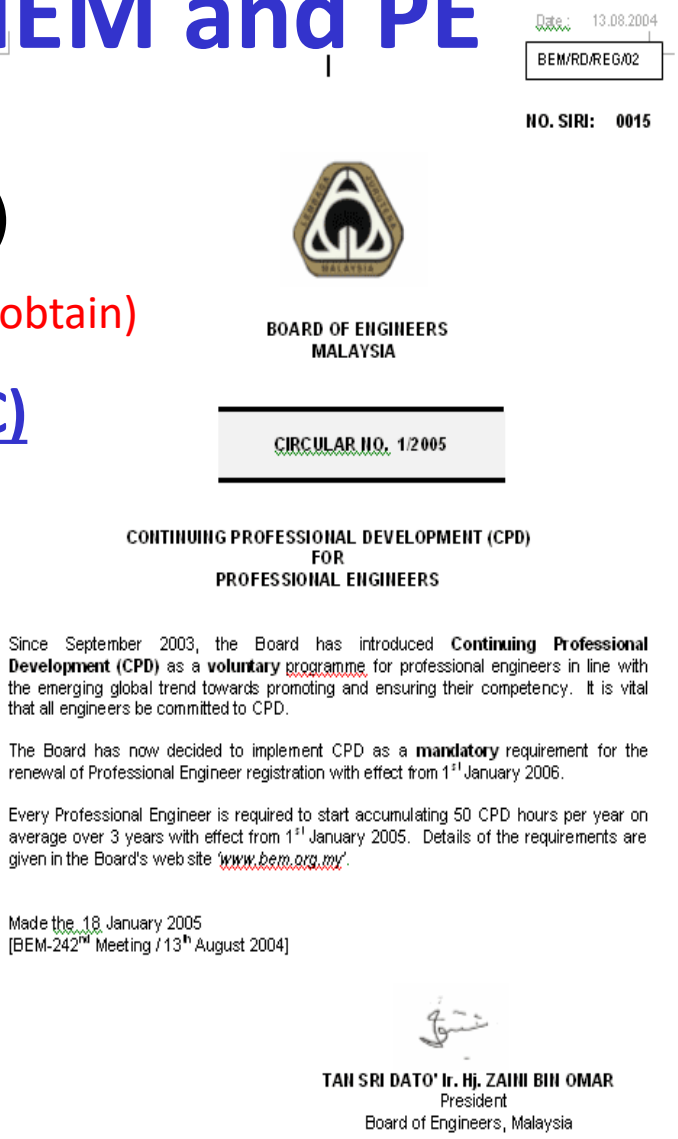
Average 50 Hours CPD Per Annum (PEPC)

Average 25 Hours CPD Per Annum (PE)

Continual Learning or Contributions

Can be in the form of:

- ❑ Technical Courses/Seminars/ Talks.
- ❑ Contributions towards Engineering advancement.



Date : 13.08.2004

BEM/RD/REG/02

NO. SIRI: 0015

BOARD OF ENGINEERS
MALAYSIA

CIRCULAR NO. 1/2005

CONTINUING PROFESSIONAL DEVELOPMENT (CPD)
FOR
PROFESSIONAL ENGINEERS

Since September 2003, the Board has introduced **Continuing Professional Development (CPD)** as a **voluntary** programme for professional engineers in line with the emerging global trend towards promoting and ensuring their competency. It is vital that all engineers be committed to CPD.

The Board has now decided to implement CPD as a **mandatory** requirement for the renewal of Professional Engineer registration with effect from 1st January 2006.

Every Professional Engineer is required to start accumulating 50 CPD hours per year on average over 3 years with effect from 1st January 2005. Details of the requirements are given in the Board's web site 'www.bem.org.my'.

Made the 18 January 2005
[BEM-242nd Meeting / 13th August 2004]

TAN SRI DATO' Ir. Hj. ZAINI BIN OMAR
President
Board of Engineers, Malaysia

Route to become MIEM and PE

Teaching in Engineering

- ☑ Teaching in an EAC approved engineering degree program; and
- ☑ At least one year teaching in final two years of the engineering course; and
- ☑ Have an equivalent of one year practical engineering experience; can be cumulative; and
- ☑ Have more than 3-years experience for above; may also include postgraduate study or research while holding the teaching post.

IEM
The Institution of Engineers, Malaysia

INTERNATIONAL AFFILIATION

IEM
The Institution of Engineers, Malaysia

INTERNATIONAL REGISTERS OF ENGINEERS -ASEAN and APEC/IntPE

ASEAN ENGINEERING REGISTER

APEC

ASEAN ENGINEERING REGISTER

THE ASEAN FEDERATION OF ENGINEERING ORGANISATIONS (AFEO)

IEM

The Institution of Engineers, Malaysia

AER

OBJECTIVES

- To provide a complete data of practicing engineers within ASEAN with the ultimate purpose of facilitating their mobility within the ASEAN ambit and to establish a framework of mutual recognition of qualifications in order to allow engineers who wish to practice outside their home country to carry with them a guarantee of ability.
- To encourage a continuous updating on the quality of engineers by setting, monitoring and reviewing standards.
- To promote cultural and professional links among members of the engineering profession within ASEAN.
- To provide sufficient data regarding the formation of individual engineers for the benefit of prospective employers.
- To enhance the wealth creation process of ASEAN countries.

AER

REQUIREMENT

1	**MUST** possess an Engineering degree recognised by the home country.
2	**MUST** be a full time member of the Engineering or Technological Association and licensed to practise in the home country.
3	**MUST** have a minimum of seven (7) years post-graduate working experience in an engineering environment.

ASEAN ENGINEERING REGISTER

THE ASEAN FEDERATION OF ENGINEERING ORGANISATIONS (AFEO)

IEM

The Institution of Engineers, Malaysia

1

Bigger market for expertise

2

Better employment prospects

3

Greater avenue for sharing of knowledge, expertise and technology

4

Increased related business potential

5

Wider networking and strategic alliances

Opportunities

TITLE

A registered ASEAN Engineer is entitled to use the post-nominal title **ASEAN Eng.** behind his/her name.

ASEAN ENGINEERING REGISTER

THE ASEAN FEDERATION OF ENGINEERING ORGANISATIONS (AFEO)

IEM

The Institution of Engineers, Malaysia

From 2009, ASEAN Governments have agreed to register ASEAN Chartered Professional Engineer (**ACPE**).

REQUIREMENTS

1	**MUST** possess an Engineering degree recognised by the home country.
2	**MUST** be a full time member of the Engineering or Technological Association and licensed to practise in the home country.
3	**MUST** have a minimum of seven (7) years post-graduate working experience in an engineering environment. **plus two (2) years of significant experience**

ASEAN Federation of Engineering Organisations (AFEO)
ASEAN Engineering Register (AER)

IEM is currently the Secretariat (a position held since 1998)

Federation of Engineering Institutions Asia and the Pacific (FEIAP)

IEM was appointed the permanent Secretariat in 2007

APEC/IPE International Registers

APEC: Asia Pacific Economic Cooperation

IPEA: International Professional Engineers Agreement
(formally known as Engineers Mobility Forum (EMF)

The APEC Engineers Register and the International Professional Engineer Agreement had been implemented since 20 April 2002.

APEC/IPEA International Registers

Objective of the Registers:

Initiatives for trade liberalization in Professional Services; Reduce barriers and ease the process for engineers to gain access to work and practice in other economies.

Engineers in these registers shall have their competence recognised by APEC and International member economies.

DEFINITION

An **APEC Engineer** is defined as a person who is recognized as a Professional Engineer within an APEC Economy, and has satisfied an authorized body in that economy (APEC Engineers National Monitoring Committee), operating in accordance with the criteria and procedures approved by the APEC Engineer Coordinating Committee.

An **International Professional Engineer** is a one whose experience is accepted as being eligible for independent practice in another economy within which the full member countries/economies have standing

CRITERIA

The applicant must have:

- reached an overall level of academic achievement at the point of entry to the register in question which is substantially equivalent to that of a graduate holding an engineering degree accredited by an organization holding full membership of, and acting in accordance with the terms of the Washington Accord;
- been assessed within their own economy as eligible for independent practice;
- gained a minimum of 7 years practical experience since graduation;
- spent at least 2 years in responsible charge of significant engineering work; and
- maintained their continuing professional development (CPD) at a satisfactory level.

TITLE

A registered APEC Engineer is entitled to use the post-nominal title **APEC Eng.** behind his/her name.

A registered International Professional Engineer in Malaysia is entitled to use the post-nominal title **IntPE (MY)** behind his/her name.

APEC ENGINEER MEMBER ECONOMIES

IEM
The Institution of Engineers, Malaysia

Australia - Represented by Engineers Australia (*2000*)
Canada - Represented by Engineers Canada (*2000*)
Chinese Taipei - Represented by Chinese Institute of Engineers, (*2005*)
Hong Kong China - Represented by The Hong Kong Institution of Engineers (*2000*)
Indonesia- Represented by Persatuan Insinyur Indonesia, Institution of Engineers, (2001)
Japan- Represented by Institution of Professional Engineers Japan (*2000*)
Korea - Represented by Korean Professional Engineers Association (*2000*)
Malaysia - Represented by The Institution of Engineers Malaysia (*2000*)
New Zealand - Represented by Institution of Professional Engineers NZ (*2000*)
Philippines – Represented by Philippines Technological Council (*2003*)
Singapore - Represented by Institution of Engineers Singapore (*2005*)
Thailand - Represented by Council of Engineers Thailand (*2003*)
United States - Represented by National Council of Examiners for Engineering and Surveying (USA) (*2001*)

Inter-Institution Cooperation

- Institution of Engineers, Singapore (IES)
- Institution of Electrical and Electronic Engineers (IEEE), USA
- Institution of Engineers,Pakistan
- Institution of Engineering & Technology, UK (IET)
- Institution of Engineers, Bangladesh
- American Society of Civil Engineers
- Institution of Civil Engineers, UK (ICE)

Inter-Institution Cooperation

- China Association for Science and Technical.
- Tech Association of Malaysia (TAM).
- Institution of Mechanical Engineers, UK (IMechE).
- Korean Society of Civil Engineers.
- Institution of Engineers, Australia (IEAust).
- Institution of Structure Engineers UK (IStructE).
- Chinese Institute of Engineers.

IEM Web Portal
www. myiem.org.my

e-mail address
sec@iem.org.my

IEM
The Institution of Engineers, Malaysia

THANK YOU

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Contact number: 012-2515093