



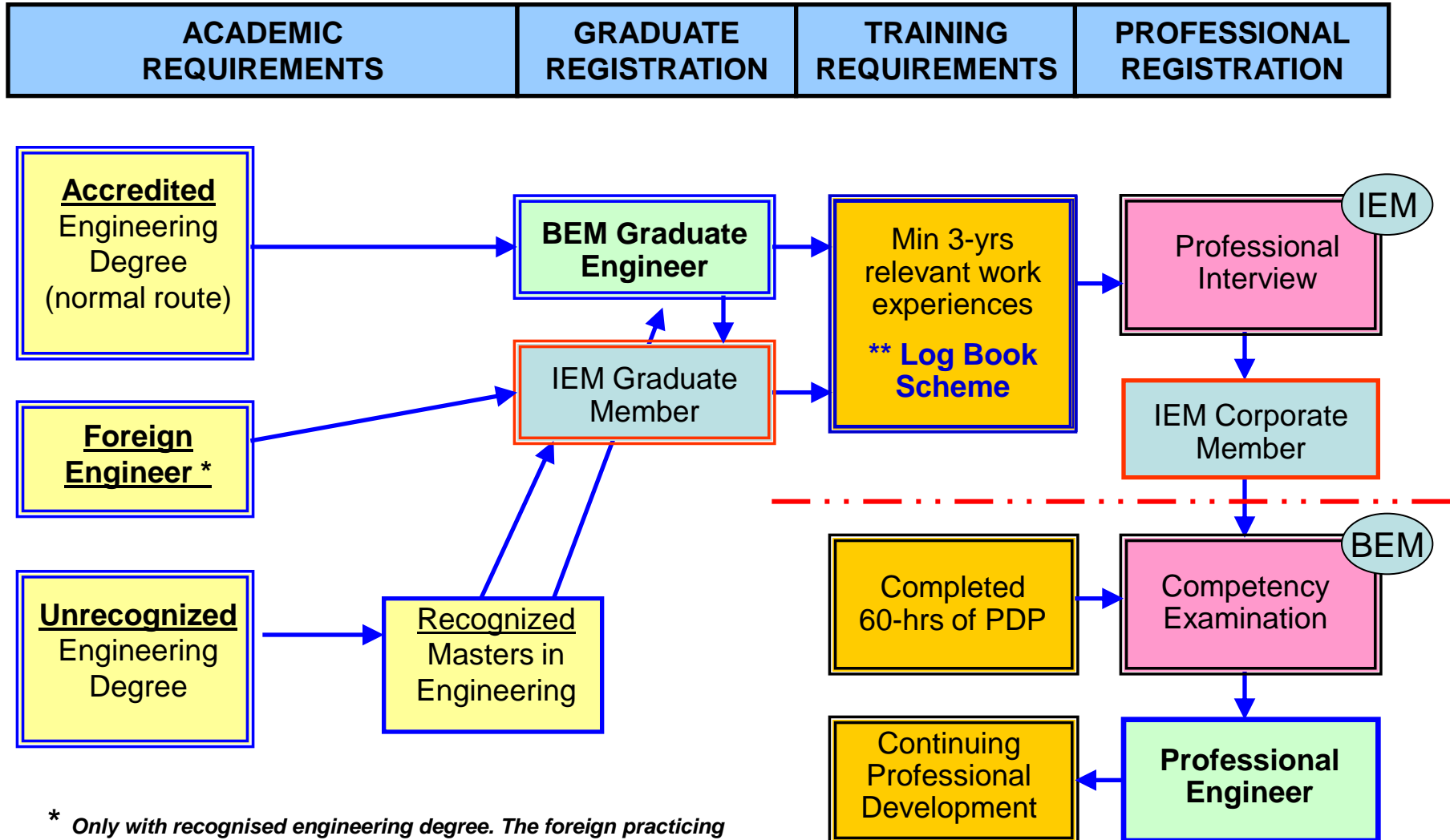
Institution of Engineers
Malaysia

Route to MIEM / Professional Engineer

Route to MIEM / PE



Route to MIEM / Professional Engineer



* Only with recognised engineering degree. The foreign practicing engineer must also register as Temporary Engineer with BEM.



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Route to MIEM / Professional Engineer

HYPER-LINK SLIDES PART-4



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Route to MIEM / Professional Engineer

LOCAL PUBLIC UNIVERSITIES
LOCAL PRIVATE UNIVERSITIES

Accrediting Body
Engineering Accreditation Council
(EAC)

Members:

Board of Engineers Malaysia (BEM)
Institution of Engineers Malaysia (IEM)
Malaysian Qualification Agency (MQA)
Public Services Department (PSD)



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Route to MIEM / Professional Engineer

FOREIGN UNIVERSITIES

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





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Route to MIEM / Professional 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)**



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Route to MIEM / Professional Engineer

Under *Registration of Engineers Act*,
... the Board of Engineers, Malaysia (BEM)
was established to administer its provision ...

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

**All Engineers MUST register with BEM
within 6-months of engineering practice**



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Route to MIEM / Professional Engineer

Registration with BEM

- Graduate Engineer
- Professional Engineer
- Temporary Engineer
- Accredited Checker

Web site: www.bem.org.my



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Route to MIEM / Professional Engineer

Understanding Between roles of BEM and IEM

Board of Engineers Malaysia (BEM)

Regulatory body for engineering practices in Malaysia set-up under the Registration of Engineers Act, 1967. All engineering practitioner **MUST** register with BEM within 6-months of practice.

Institution of Engineers Malaysia (IEM)

A learned institution for practicing engineers in Malaysia; networking, technical learning and socializing group.





Route to MIEM / Professional Engineer

Types of Membership within IEM

- ✓ **Student Member** – open to all engineering students.
- ✓ **Graduate Member** – open to all practicing engineers “registered with BEM”.
- ✓ **Corporate / Fellow Member** – upgrading for experience engineers leading to Professional Engineer status.
- ✓ **Associate Member** – recognised diploma in engineering from a polytechnic/college or has obtained equivalent qualification.
- ✓ **Incorporated Member** – unrecognised engineering degree.
(Not on The Institution’s Accredited List)
- ✓ **Honorary Member** – distinguish person who contributed to engineering profession.



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Introduction to IEM

Only Engineering Degree / Diploma Pursuing Students

can become a Student Member of IEM

Primary BENEFITS as IEM Student Member

- ✓ Networking with practicing engineers.
- ✓ Technical Talks, Courses and Technical Visits.
- ✓ Mentorship program (with Senior Engineer esp. for Final Year project).
- ✓ Potential Industrial Training Program (ITP) attachments.
- ✓ Potential future job employment.

Web site: www.myiem.org.my



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Route to MIEM / Professional Engineer

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 Engineers.
- ☑ Attend Continuing Professional Development (CPD).

Web site: www.myiem.org.my





Introduction to IEM

IEM Management Structure





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Route to MIEM / Professional Engineer

Log Book Scheme



Route to MIEM / Professional Engineer

Log-Book Scheme

**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





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Route to MIEM / Professional Engineer

IEM REQUIREMENTS



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Route to MIEM / Professional Engineer

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 Engineering registration with the BEM.



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Route to MIEM / Professional Engineer

Professional Experiences

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

- Minimum twelve months of site experience
- Minimum twelve months of design experience



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Professional Experiences

For other Engineering candidates must obtain professional experiences in:-

- ✓ Minimum six months of site experience for Electrical Engineering only
- ✓ Minimum of twelve months site experience for Mechanical Engineering only
- ✓ Minimum of twelve months design experience for Electrical Engineering only
- ✓ Minimum six months of design experience for Electronic & Communication, Mechanical Engineering



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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 one year working experience locally

Route to MIEM / Professional Engineer

Professional Interview

Applying for MIEM

PI
FORM

1. Submit application form.
2. Make payment to attend Professional Interview.
 - 2.1 IEM Graduate Member: rm150
 - 2.2 Non-Member: rm200
3. Upon successful, make payment for membership application.
 - 3.1 Transfer (IEM >2yrs): rm100 + rm100 + rm130 (annual fee)
 - 3.2 Transfer (IEM <2yrs): rm250 + rm100 + rm130 (annual fee)
 - 3.3 Election: rm350 + rm100 + rm130 (annual fee)

Route to MIEM / Professional Engineer

Professional Interview

Requirements

NOTE: submit to Interviewer upon request together with IEM/PI (2) Form

1. **Submission of REPORT** detailing of work experiences – 2 sets.
2. **Submission of DOCUMENT** on execution of “project” or “maintenance” work – 1 set.
3. **Attend interview.**
4. **Write 2 sets of essay** on
 - 4.1 Submitted DOCUMENT (as per item 2)
 - 4.2 Regulations on Professional Conduct (listed topics)





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Route to MIEM / Professional Engineer Professional Assessment

Detailing of Work Experiences

REPORTS on trainings and work experiences; *to be verified or certified by Professional Engineer (PE)* (must be PE of same discipline applied within the Organization)

ALTERNATIVE

LOG BOOK (if no PE within the Organization); to undergo Mentorship Program with a Professional Engineer of same discipline.



Route to MIEM / Professional Engineer Professional Assessment

Submission of Report

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

DRAWINGS and/or OTHER DOCUMENTS; *to be verified or certified by Professional Engineer.*



Route to MIEM / Professional Engineer Professional Assessment

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 MIEM / Professional Engineer Essay Writing During Professional Interview

- ☑ Two essays within 1 ½ hours each.
- ☑ Section A: on candidate's DOCUMENT submission.
- ☑ Section B: on one of the 13 Regulations on Professional Conduct 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.





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Route to MIEM / Professional Engineer

BEM REQUIREMENTS



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Route to MIEM / Professional Engineer Competency Examination

Requirements

- ☑ Pass PAE (thru BEM) or PI (thru IEM).
- ☑ Full-filled minimum 60-hours of Professional Development Program (PDP) – those BEM Registered Engineer after 1/1/2005.
- ☑ Attend Competency Examination.



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Route to MIEM / Professional Engineer



New BEM Requirements

Aspiring PE registering with the BEM after:

- ☑ **1st Jan-2005** as BEM Graduate Engineer required to Undergo a period of Professional Development Program (PDP).





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Route to MIEM / Professional Engineer

Date : 13.08.2004

BEM/RD/REG/03

NO. SIRI: 0016

Professional Development Program (as of **1/1/2005** BEM Graduate to become PE)

60 Hours PDP

Mandatory Learning

12hr: OSH and Environment

12hr: Engineering Management

12hr: Code of Ethics

Additional Learning

24hr: Courses/Seminars or Talks
in the Engineering Discipline of
Candidate.



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.*





Institution of Engineers
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Route to MIEM / Professional Engineer

Date: 13.08.2004

BEM/RD/REG/02

NO. SIRI: 0015

Continuing Professional Development
(from **1/1/2006**, all registered PE be subjected)

50 Hours CPD Per Annum

Continual Learning or Contributions

Can be in the form of:

- Technical Courses/Seminars
or Talks.

- Contributions towards
Engineering advancement.



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]

TAHIR SRI DATO' Ir. Hj. ZAIHI BIN OMAR
President
Board of Engineers, Malaysia



Route to MIEM / Professional Engineer 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 post-graduate study or research while holding the teaching post.





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Route to MIEM / Professional Engineer

Foreign Engineer REQUIREMENTS



Route to MIEM / Professional Engineer

Foreign Engineer Membership

- ❑ All foreign engineers practicing in Malaysia must register with the Board of Engineer (BEM) as a ***Temporary Engineer***
- ❑ 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





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Route to MIEM / Professional Engineer

Un-Recognize Degree REQUIREMENTS



Route to MIEM / Professional Engineer

Un-Recognized Degree Membership

- ❑ All Un-Recognized Engineering Degree must do a **Top-Up** in order to make their degree acceptable by BEM
- ❑ Top-Up can be in the form of
 - Master Degree in Engineering by Coursework
- ❑ Un-Recognized engineering degree can join IEM as an Incorporated Member

