

REGULATING ENGINEERING PROFESSION: AN OVERVIEW OF BEM'S ROLES AND FUNCTIONS



BEM Executive Director

noramil@bem.org.my

Date: 18th May 2021

Venue: ZOOM



Professional Regulatory Authority





MALAYSIAN INSTITUTE OF ACCOUNTANTS

ACCOUNTANTS: MANAGERS OF VALUE

Accountants Act 1967

Advocates and Solicitors' Ordinance 1947; Legal Profession Act 1976



Registration of Surveyors Act of 1967



Board of Architects Malaysia Lembaga Arkitek Malaysia

Architects Act 1967



THE PURPOSE OF THE ENGINEERS' ACT



To **protect the public** by legislative control so that the practice of engineering, which has a bearing on <u>public safety</u>, health and welfare, can only be carried out by <u>licensed</u> professional engineers.

To create a regulatory body with mandate to carry out licensing of professional engineers and regulation of the profession

To set regulations pertaining to the practice of engineering; <u>qualifications for licensing;</u> and code of professional conduct for registered engineers;

14 Board Functions

eb) To employ any person, as it deems necessary, to assist the Board in carrying out its functions/powers/duties

ec) To provide facilities for promotion of learning & education and to hold/cause the professional development programmes, incl. CPD program for enhancing latest knowledge to that profession

ed) To appoint a committee to conduct PAE for the purpose of admission as PE & PCE for the purpose of issuing a Practicing Certificate to PE

ee) To appoint any person to represent the Board in any committee/panel/institution with recommendations to the Board on qualifying matters for admission to the profession

ef) To appoint a body consisting of members from the Board, PE & other persons to advise the Gov. & public on matters relating to engineering education incl the certification of such programs

eg) To cause examinations to be conducted by an institution recognized by the Board for the purpose of admission to the profession

f) To determine & regulate the conduct and ethics of the engineering profession 6

b) To approve or reject applications for registration under this Act or to approve any such application

a) To keep and maintain the Register

c) To order the issuance/imposition written warning/reprimand, fine, suspension, cancellation, removal/reinstatement of Parts III & IV

d) To fix from time to time the scale of fees to be charged by registered Engineers & ECP for professional engineering services rendered

 e) To hear & determine or appoint committee/arbitrator on disputes relating to professional conduct/ethic of registered Persons

ea) To act as a stakeholder in a contract for professional engineering services, when 18/5/2021 requested

g) Generally, to do all as are necessary to carry out the provisions of the Act





Board Formation

The Board



YBhg. Dato' Ir. Haji Mohamad Zulkefly bin Sulaiman (President)





REGISTRATION OF ENGINEERS

LAWS OF MALAYSIA

ACT 1967

LEMBAGA JURUTERA MALAYSIA

P.U. (A) 128.



Prof. Ir. Dr. Norlida

Adnan bin Mohd Nor



Redza bin Ghulam Rasool



A Krishnasamy



bin Hj Sabki



Ir. Ahmad Murad bin Omar







Ir. Megat Johari bin

Megat Mohd Noor

Dato' Prof. Ir. Dr. Mohd YBhg. Dato' Ir. Haji Nor Hisham bin Mohd Ghazali Hamdi bin Abd Shukor





Ir. Zailee bin Dollah

bin Hj Idris

Ir. Ong Ching Loon



Sr. Rogayah binti Yunus





Ir. Mohd Khir bin



MINISTRY OF WORKS

Section 3(2)(a) of REA

PE/PEPC from Government Sector

Section 3(2)(b), 3(2)(c) and 3(2)(d) of REA

PE/PEPC from Private Sector

Representative from Architect & Quantity Surveyor Boards



Megat Tajuddin (Registrar)



Ir. Suhaizad bin Sulaiman (Secretary)

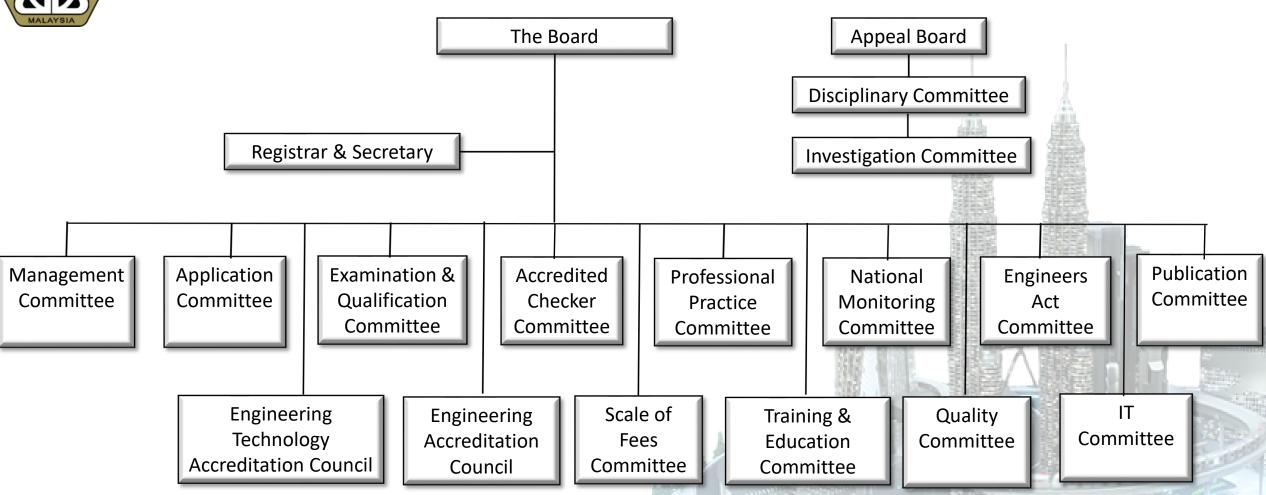
Regulation 9 of RER

REGISTRATION OF ENGINEERS **REGULATIONS 1990**

LEMBAGA JURUTERA MALAYSIA



Committee Organization Chart





JABATAN

TEKNOLOGI

MAKLUMAT

Department

KOMUNIKASI &

Communication &

Information Technology

PENGURUS KANAN

Senior Manager

JABATAN

& KUALITI

Department

PENTADBIRAN,

Resource & Quality

Senior Manager

BEM's Organization Chart PRESIDEN & AHLI LEMBAGA President & Board Members **SETIAUSAHA & PENDAFTAR** Secretary & Registrar PENGARAH EKSEKUTIF Executive Director PELAN STRATEGIK Strategic Planning **OPERASI KAWAL SELIA** Operation Regulatory **JABATAN JABATAN** JABATAN AKREDITASI JABATAN AKREDITASI AMALAN IKHTISAS PENDAFTARAN **TEKNOLOGI** KEJURUTERAAN SUMBER MANUSIA KEJURUTERAAN & KELAYAKAN Registration Engineering Accreditation Professional Practice Engineering Technology Department Department Administration, Human & Qualification Department Accreditation Department UNIT KEWANGAN PENGARAH Finance Unit Director **PENGURUS** PENGURUS KANAN **PENGURUS** PENGURUS KANAN PENGURUS KANAN Manager Manager Senior Manager Senior Manager

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Corporate Focus

Vision

An authoritative body of international standing that regulates engineering practices.

Mission

Regulate engineering services, conforming to professional ethics and international best practices, in ensuring public safety.





Quality Policy

The Board is committed to provide excellent services to registered persons in the engineering profession and stakeholders with continual improvement of its standards.



CERTIFICATE



SIRIM QAS International hereby certifies that

LEMBAGA JURUTERA MALAYSIA JALAN SULTAN SALAHUDDIN 50580 KUALA LUMPUR WILAYAH PERSEKUTUAN



has implemented a Quality Management System complying with

ISO 9001:2015



QUALITY MANAGEMENT SYSTEMS - Requirements

Scope of Certification



16 February 2019

Original certification date

16 February 2001

15 February 2022

MALAYSIA NON PP 117204/2019 (30227R) THE INGENIEUR MAGAZINE OF THE BOARD OF ENGINEERS MALAYSIA Engineering Fraternity

Publication Activities





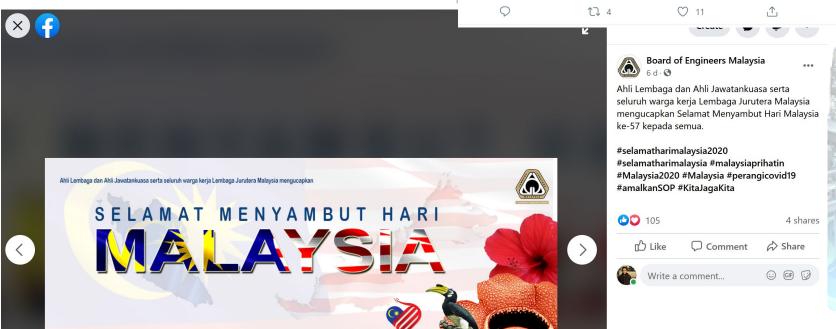


Media

Likes

Tweets & replies





Tweets

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Eksklusif

sebenarnya sudah lama meny

tuk menentukan mana-mana ku

kata 'tidak' kepada mana-mana universiti kerana setiap institusi

Pemansuhan 55 program

diteliti secara mendalam

Keratan BH 6 Disember Jalu

Ia membabitkan lima universiti

awam dan tujuh universiti swasta.

Antara universiti berkenaan ada-

lah Universiti Teknologi MARA

(UiTM), Universiti Malaya (UM),

Universiti Teknikal Malaysia Me-

laka (UTeM), INTI International

University (INTI), Universiti Se-

langor (UNISEL), MAHSA Univer-

sity dan Universiti Multimedia

Pengerusi Mailis Akreditasi Ke-

juruteraan Malaysia (EAC) itu tu-

rut berkata, Malaysia sebenarnya

Langkah seiring kemajuan teknologi

Universiti awam, swasta gabung, ubah kursus bagi penuhi kebolehpasaran

Kuala Lumpur: Sebanyak 55 masuk tiada permintaan daripada pelajar serta kandungan kursus pengajian yang hampir sama di

iyai kebolehpasaran serta seiring lengan kemajuan dalam bidang

NTI International University INTO Universiti Selangor (UNI-EL), MAHSA University, Univer-iti Multimedia (MMU), University of Nottingham Malaysia (UNMC), Swinburne University dan Manipal International University dan Manipal International University (Constituting the Constituting the Constitution of Constitution of

Harian.

mempunyai perancangan ter rawak (UNIMAS), Universiti Per-tahanan Nasional Malaysia (UP-NM) dan Universiti Malaysia Per-Megat Johari menjelaskan, anersiti swasta yang terbabit tapkan 12 ciri dalam pengeluaran berasaskan ilmu dalam sains dan matematik serta mampu melak

sanakan analisis, reka bentuk dar

bukan bandar besar adalah lebih Ahli Lembaga Jurutera Malaysia (LJM), Megat Johari Megat Mohd Noor, berkata universiti

55 PROG Gaji jurutera statik

Newsprint kekurangan Bayaran tak beruba 150,000 jurutera sejak 20 tahun lalu

Graduan baharu kerja di bandar UTem hanya terima gaji permulaan RM2,500

Oleh Ilah Hafiz Aziz UPNM Illahhafiz.abdula-

ziz@bh.com.my

UniMAF Kuala Lumpur: Kadar gaji jurutera tempatan tidak berubah sejak 20 tahun lalu, meskipun negara mencapai tahap kemajuan ran unisei dan pembangunan yang mem-

banggakan Difahamkan, ketika ini graduan baharu kejuruteraan hanya menerima bayaran kurang beri latihan dan pengalaman yang MMI RM2,500 sebulan, bukan gaji lu-

mayan seperti yang dipercayai UNM masyarakat. Kadar gaji itu pula hanya di tawarkan di bandar besar seperti MI di Lembah Klang, di mana permintaan pasaran adalah tinggi jurutera," katanya kepada BH.

manakala kadar gaji di kawasan juruteraan ditawarkan gaji sekinikmati kenaikan setaraf selepas

Mereka yang ditawarkan jawa-Compiled by DI tempatan menghasilkan kira-kira tan pembantu jurutera pula hanya akan menerima gaji sekitar



Industri hari ini dilihat lebih memberi peluang .kepada kepakaran dari luar seperti Singapura. Mereka mewujudkan kilang di sini tetapi bila mahu menggunakan kejuruteraan dan teknologi baharu, mereka ke negara

Megat Johari Megat Mohd Noor, Ahli Lembaga LIM

iiran itu.

Malavsia perlu 300,000 kepakaran capai tahap

negara maju

berjumlah 29 juta orang. Antara punca kekurangan ke pakaran ini yang dikesan Lembaga Jurutera Malaysia (LJM) adalah bilangan teknologis kejuruteraan masih kecil berbanding iurutera.

dihitung dengan nisbah 1:100 (seo-

rang jurutera/ teknologis kejuru-

teraan bagi 100 penduduk) dan

ketika ini, penduduk Malaysia

hap negara maju.

Universiti tempatan pada masa ini menghasilkan 10.000 jurutera setahun, tetapi graduan yang dikeluarkan itu tidak mampu memenuhi keperluan industri masa kini disebabkan beberapa perka-

Sebagai contoh, universiti tem patan sebelum ini melaksanakan banyak program kejuruteraan elektronik sehingga mengakibatkan ramai jurutera elektronik terhasil dalam pasaran kerjaya, manakala program kejuruteraan kimia pula terkesan akibat kejatu han industri minyak dan gas.

Ahli Lembaga LJM, Prof Ir Megat Johari Megat Mohd Noor, berkata industri pada masa ini di-

kepakaran itu untuk mencapai ta-Ini berikutan, keperluan bidang kejuruteraan bagi negara maju

Setiap program keiuruteraan perlu dilaksanakan dengan dasar dan asas yang kuat supaya graduan dihasilkan itu mampu survival dan

Megat Johari Megat Mohd Noor. Ahli Lembaga LIM

diterima industri.

lihat 'naik turun' dan penting untuk universiti melaksanakan ramalan lebih tepat.

"Contohnya dalam industri minyak, tiada siapa menduga kejatuhan ini, namun universiti tidak boleh berdiam diri, sebaliknya melaksanakan kajian pasaran dan rujukan penting sebelum program itu ditawarkan

"Setiap program kejuruteraan perlu dilaksanakan dengan dasar dan asas yang kuat supaya graduan dihasilkan itu mampu survival dan diterima industri," katanya kepada BH, baru-baru ini. mai teknologis kejuruteraan me mandangkan negara ketika ini se-

Laporan BH Jumaat lalu, mendedahkan 55 program kejurutedang mendepani Revolusi Indus raan di universiti tempatan di netri 4.0 (RI 4.0) gara ini digugurkan atas pelbagai "Hampir 10,000 jurutera diha faktor termasuk tiada permintasilkan setahun, tetapi disebabkan an daripada pelajar dan kandubilangan teknologis kejuruteraan ngan kursus pengajian hampir salebih kecil mengakibatkan rama ma di setiap universiti. graduan kejuruteraan ini menja-

> lankan kerja yang sepatutnya di lakukan teknologis. "Graduan ini melakukan kerja lebih kepada operasi dan penyelenggaraan meskipun pada dasarnya mereka perlu terbabit dalam kerja perundingan dan pembina

an," katanya. Megat Johari berkata, Akta Pen daftaran Jurutera 1967 (Pindaar 2015) memberi kesamarataan ke pada dua kelompok ini melaksa nakan kerja profesional dan me mastikan tiada perbezaan status



berharga untuk dibayar, menjadi punca bidang kejuruteraan negara masih tidak meningkat ke tahap yang sepatutnya. "Industri tidak melihat kepada kemahiran dan mereka lebih berminat mendapatkan tenaga luar

Eksklusif

akan menerima apa saja tawa-"Industri juga berasakan graduan kejuruteraan tidak bersedia untuk membuat kerja, tetapi tidak mahu melabur untuk mem-

seperti dari negara jiran yang

"Keadaan ini menyebabkan taraf gaji jurutera negara hari ini dalam keadaan tertekan kerana industri tidak berusaha untuk meningkatkan tahap kemahiran

BH difahamkan, graduan ketar RM2,500 dan hanya akan me-



Bksklusif

sebenarnya masih berdepan kekurangan sehingga 150,000 jurutera berdaftar.

Ketika ini, jurutera berdaftar termasuk berstatus profesional berjumlah 153,020 orang, namun Malaysia sebenarnya memerlukan sekurang-kurangnya 300,000

Syarikat tidak percaya bakat jurutera tempatan

Engineers' salaries stagnant for 20 years yarikat yang menyediakan perkhidmatan kejuruteraan di negara ini tidak mempercayai ke-Jarum Junior added that mampuan bakat tempatan, sekali gus menyebabkan ramai jurutera she blocked the individu dan graduan kejuruteraan tidak unt, the individual keeps (menerima pengiktirafan dan gaji setaraf.

new account to continue Situasi itu menyebabkan pembangunan kejuruteraan negara berada dalam tekanan kerana in-"If they keep botheri dustri ketika ini lebih mengge-mari kepakaren dan teknologi an, berbanding tenaga tempa-

Akibatnya, sektor perindustri: Malaysia mempunyai ramai ba- lebih memberi peluang kepada an negara tidak membangun pada tahap yang sepatutnya, meskipun pelbagai usaha sudah dilakukan kerajaan untuk mencapai tahap negara maju.

BH dimaklumkan, syarikat kejuruteraan di Malaysia ketika ini tidak berminat untuk melabur dalam meningkatkan kemahiran bakat kejuruteraan tempatan, sebaliknya hanya menggunakan penyelidikan serta kepakaran sedia ada atau dari luar negara.

Keengganan industri untuk memberi upah yang setimpal kepada bakat tempatan menyebahkan gaji jurutera di Malaysia jauh lebih rendah, berbanding di negara lain dan tidak sepadan

Ahli Lembaga LJM, Megat Johari Megat Mohd Noor, berkata

kat tempatan dan program pendidikan kejuruteraan juga amat setanding dengan negara maju.

(MMU).

Bagaimanapun katanya, perkara itu tidak seimbang dengan tahap kejuruteraan negara masa kini sehingga memberi kesan terhadap pembangunan beberapa

industri negara. "Kira-kira 6,000 syarikat kejuruteraan ada di negara ini, tetapi hanya 600 sahaja yang melak-

sanakan kerja penyelidikan. "Ribuan syarikat lain pula me lakukan pelbagai jenis projek, tetapi mereka tidak mahu melabur dalam meningkatkan taraf bakat tempatan.

"Situasi ini memberi kesan kepada negara dan boleh dikatakan implikasi itu sudah mula dirasai kerana industri hari ini dilihat

kepakaran dari luar seperti Singapura.

mampu mengeluarkan lebih ra- bagi kedua-dua profesion ini.

"Mereka mewujudkan kilang di sini, tetapi bila mahu menggunakan kejuruteraan dan teknologi baharu, mereka ke negara jiran itu," katanya kepada BH.

Megat Johari berkata, perkembangan itu menyebabkan Malaysia sukar mencapai status negara maju.

Katanya, Singapura sebelum ini memacu kemajuan dengan mewujudkan pembangunan dan pembinaan yang hebat, tetapi kini menumpukan kepada bidang penyelidikan seperti pelan me-

mulihara bangunan sedia ada. "Mereka melakukan perkara ini apabila sedar kepentingan penyelidikan kejuruteraan," kata-

ngerusi Majlis Akreditasi Keju ruteraan Malaysia (EAC) menjelaskan, bakat kejuruteraan ne gara sememangnya cemerlang te tapi imej yang ada pada hari ini tidak meletakkan mereka di ta han sepatumya "Bakat kejuruteraan kita ber taraf dunia kerana sistem pen-

didikan kita adalah yang terbaik ditawarkan kepada pelajar malah jika di luar negara, pelbagai pengiktirafan kita terima. Jika lurutera kita ke luar negara, me reka juga diterima baik. "Tetapi di Malaysia hari in

bidang kejuruteraan tidak mengalami perubahan dalam sisten kerja dan ini boleh dilihat de ngan pembayaran gaji kepada jurutera kita yang tidak tinggi,

IN spite of progress and development over the past 20 years, engineers have not seen a wage increase during that time, reported Berita

The daily reported that even in the Klang Valley, graduates live on a meagre RM2,500, while this figure is even lower in other places, where the demand for engineers is lower.

Worse still, assistant engineers are paid a wage of around RM1.800 a month, said the daily.

Board of Engineers member Prof Megat Johari Megat Mohd Noor said that Malaysia does not see much value in paying for skills-based professionals, which is why engineering lags behind its full potential.

"The industry also feels that graduates are not ready to work, but is not willing to invest in giving them the right training and experience,"

Megat Johari said this situation owner," said Rita. causes many engineering graduates

to leave the field.

> Actress Rita Rudaini alleges that she received sexually-charged messages via Instagram from an unknown individual, reported Harian

Rita, 43, claimed this person has been bothering her for several years.

"I've received messages from false accounts as well as foreign accounts belonging to the (same)

The actress of the film Mami allegedly sent.

won't hesitate to take leg luar, khususnya dari negara jiagainst them," said Rita, tar macdier_07 a lesson by tram pembangunan jurutera, ter-

her with lewd messages.

called her fans to teach an Lembaga Jurutera Malaysia (LJM) mendapati lebih 5,000 syaal using the Instagram lrikat kejuruteraan ketika ini ti-

screenshots of the mes masuk bidang penyelidikan.

dengan tahap kemajuan negara.



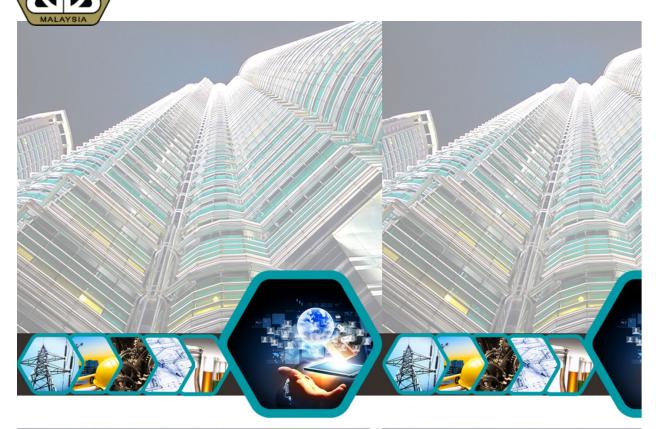
BEM Website & Social Media

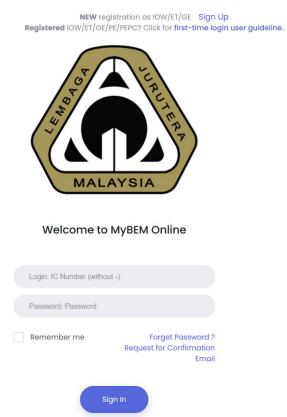


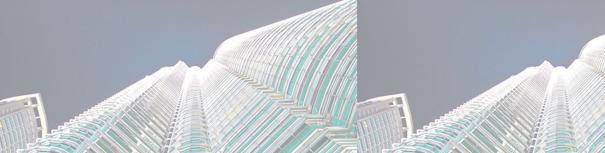


18/5/2021

BEM Online Portal





























18/5/2021



Activities



















Conceptual







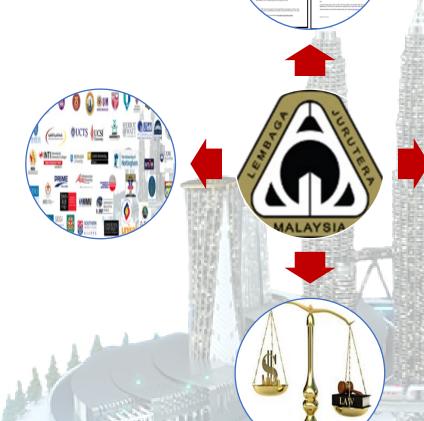












REGISTRATION OF ENGINEERS ACT 1967





Mandatory Registration for Employment

Section 7(1)(a)

"No person shall, unless he is a **Professional Engineer** – take up employment which requires him to carry out or perform **professional** engineering services"

Section 7(1A)(a)

"A person shall not, unless he is a **Professional Engineer with Practicing Certificate** – practice, carry on business or take up employment which requires him to carry out or perform professional engineering services for designated engineering works subject to Section 8"



Mandatory Registration for Employment

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 7(2) (aa)

"an **Engineering Technologist** who is registered with the Board may subject to section 8, take up employment which requires him to perform **professional engineering services**"

Section 7(2) (ab)

"an Inspector of Works who is registered with the Board may subject to section 8, take up employment which requires him to assist Professional Engineers in supervision of engineering works"



Mandatory Registration for Company

Section 7A(1)

"a sole proprietorship, partnership or body corporate may practice as an Engineering consultancy practice and recover in any court any fee, charge, remuneration or other form of consideration for any professional engineering services rendered by it pursuant to its practice as an Engineering consultancy practice carried on by virtue of this section..."



Interpretation

"Professional engineering services"

 means engineering services and advice in connection with any feasibility study, planning, survey, design, construction, commissioning, operation, maintenance and management of engineering works or projects and includes any other engineering services approved by the Board.

"Engineering work"

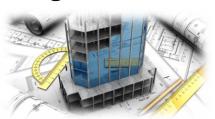
 means all works which include any publicly or privately owned public utilities, buildings, machines, equipment, processes, works or projects that require the application of engineering principles and data.



Registration Type

Registered Person

- Graduate Engineers
- Professional Engineers
- Inspector of Works
- Engineering Technologist
- Professional Engineers with Practising Certificate
- Accredited Checker



Business Entities

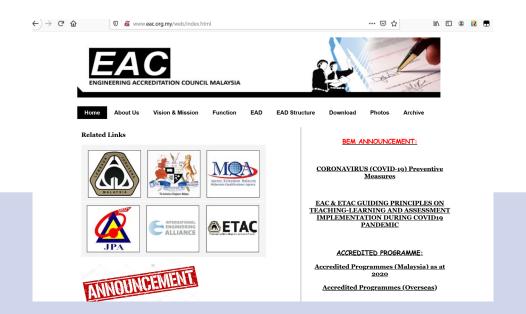
- Sole proprietorship
- Partnership
- Body corporate
- Multi-disciplinary practice

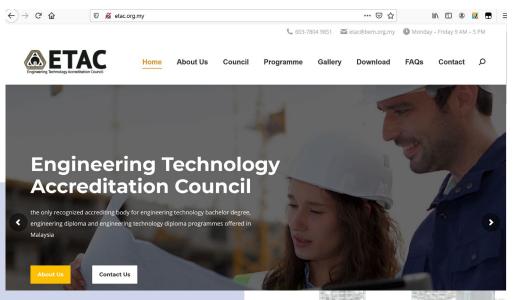
| Registered Person | 2021 (Mac) |
|---|----------------------------|
| Graduate Engineer | 143,958 |
| Professional Engineer | 4,823 |
| Inspector of Works | 6,845 |
| Engineering Technologist | 7,130 |
| PE with Practicing Certificate | 9,058 |
| Accredited Checker | 28 |
| | |
| REGISTERED PERSON (TOTAL) | 171,842 |
| REGISTERED PERSON (TOTAL) Business Entities | 171,842 2021 (Mac) |
| | • |
| Business Entities | 2021 (Mac) |
| Business Entities Sole Proprietorship | 2021 (Mac) 1,234 |
| Business Entities Sole Proprietorship Partnership | 2021 (Mac) 1,234 221 |

Board Functions

ef) To appoint a body consisting of members from the Board, PE & other persons to advise the Gov. & public on matters relating to engineering education including the certification of such programs







Maintain list of accredited engineering degree, engineering technology degree and engineering/engineering technology diploma programs

Accrediting Degree and Diploma Program

Develop best practice in engineering education

Accredited Engineering Degree – 329 programs at 48 **IHLs**







































































UNIVERSITI

MALAYSIA

MAP PERLIS















SWINBURNE











PART OF THE UNIVERSITY OF WOLLONGONG AUSTRALIA



Washington Accord Signatories



Accredited Engineering Technology Degree – 44 programs at 5 IHLs













Sydney Accord Signatories



MALAYSIA

Accredited Engineering Diploma – 142 programs at 34































































POLITEKNIK



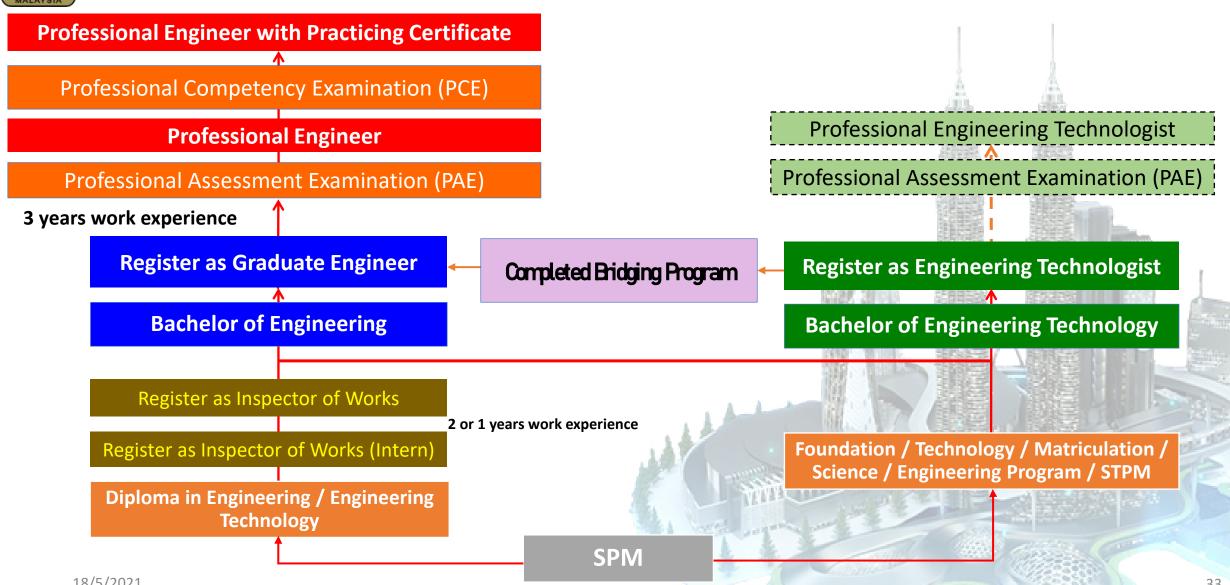


Dublin Accord Signatories





PROFESSIONAL PATHWAY



Board Functions

a) To keep and maintain the Register

ed) To appoint a committee to conduct PAE for the purpose of admission as PE & PCE for the purpose of issuing a Practicing Certificate to PE

b) To approve or reject applications for registration under this Act or to approve any such application

eg) To cause examinations to be conducted by an institution recognized by the Board for the purpose of admission to the profession

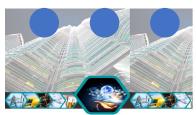


Graduate Engineer Registration

Submission

MyBEM Online Reg. System

www.engineer.org.my





Processing fee of RM 50.00













(*Confirmation letter from Jab. Laut Malaysia)















Approval within 1 – 4 months

BEM Application Committee

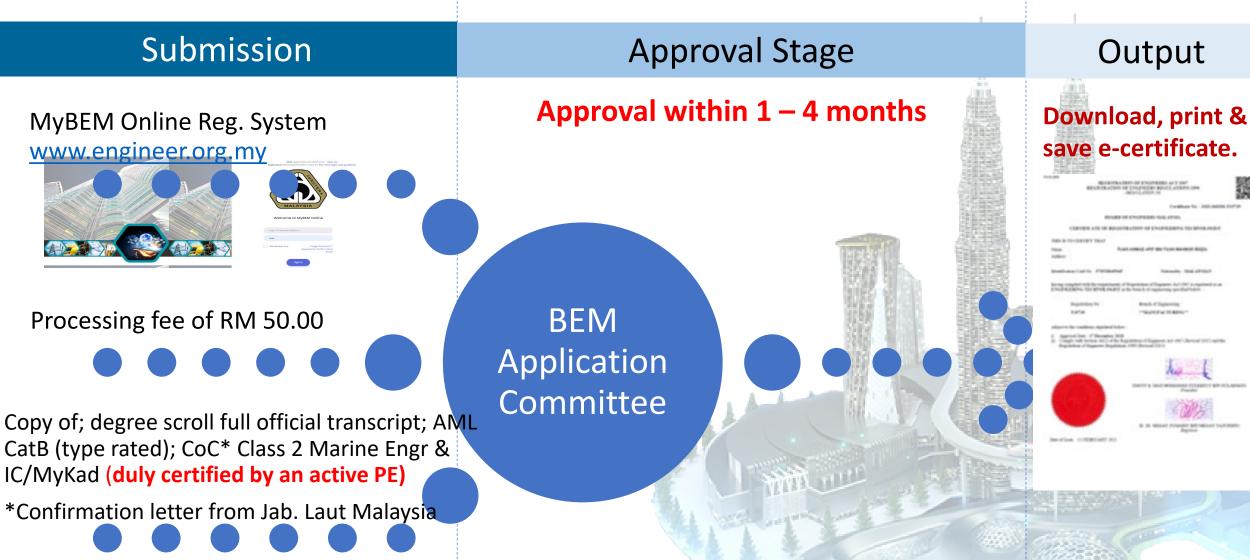
Output

Download, print & save e-certificate.





Engineer Technologist Registration



18/5/2021



Inspector of Works Registration



18/5/2021



Professional Engineer Registration

Submission

MyBEM Online Reg. System

www.engineer.org.my





Processing fee of RM 50.00 and Registration fee of RM300.00















-Summary of Practical Experience not less than 3 years using company letterhead certified by a supervisory Professional Engineer.















Approval within 1-3 months

BEM **Application** Committee

Output

Download, print & save e-certificate.













Professional Engineer with Practicing Certificate Registration

Submission

MyBEM Online Reg. System

www.engineer.org.my





Processing fee of RM 50.00 and Registration fee of RM200.00















Approval within 1 - 3 months

BEM **Application** Committee

Output

Download, print & save e-certificate.







Copy of PCE result















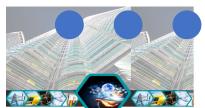


Accredited Checker Registration

Submission

MyBEM Online Reg. System

www.engineer.org.my





Processing fee of RM 50.00 and Registration fee of RM200.00





Approval Stage

Approval within 1 - 3 months

BEM Committee

Application

Output

Download, print & save e-certificate.



CV on the qualifications & practical experience



















Engineering Consultancy Practice Registration

Submission

MyBEM Online Reg. System

www.engineer.org.my





Processing fee of RM 50.00 with Registration fee RM250(Sole Proprietorship), RM500 (Partnership) and RM1,000 (Body Corporate)

Sect 14, Cert. of Corporation of Private Company (SSM), Sect 105, 51, 58, 78, Director Resolution, Statutory Declaration, etc.













Approval Stage

Approval within 1-3 months

BEM Application Committee

Output

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(Borang F)

AKTA PENDAFTARAN JURUTERA 1967 PERATURAN-PERATURAN PENDAFTARAN JURUTERA 1990



100.140

I ADAI AH INTIK MEMPERAKUI RAHAWA

Nama : Pemilik Tur

Alamat : 6 TINGKAT 1 JALAN PAHLA
TAMAN LAGENDA INDAH

08000 SG PETANI KEDAH MALAYSIA

oternani es CIVII es

ang telah mematuhi kehendak-kehendak Akta Pendaftaran Jurutera 1967 dan telah membayas endaftaran didaftarkan sebagai suatu AMALAN JURUTERA PERUNDING dalam cawangar ejuruteraan yang dinyatakan di atas tertakluk kepada syarat-syarat yang dinyatakan di bawah.

Syarat-syarat:

Perakuan pendaftaran ini akan habis tempoh pada 31 Disember 202







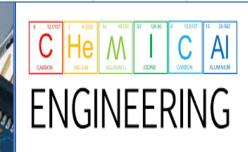
(Ir. Dr. MEGAT ZUHAIRY BIN MEGAT TAJUDDIN Pendaftar



Engineering Branch/Discipline







Civil

- Building
- Construction
- Environment
- Geotechnical
- Mining
- Structural
- Transportation

Mechanical

- Aerospace
- Agricultural
- Automotive
- Building Services
- Manufacturing
- Marine
- Material
- Mechatronic
- Metallurgy
- Mining
- Naval Architectural
- Nuclear

Electrical

- Computer
- Electronics
- Communication

Chemical

- Environmental
- Nuclear
- Petroleum
- Process (Polymer, Pharmaceutical, Food)



Recognition from Other Acts

Factory and Machinery Act 1967 (Act 139)

Section 3 "engineer" means a person who holds an engineer's certificate of competency issued under section 30".



Street, Drainage and Building Act 1974 (Act 133)

Section 3 "qualified person means a Professional Architect, Professional Engineer or building draughtsman registered under any written law relating to the registration thereof;"

Section 85 A (1) "engineer" means a Professional Engineer registered under Registration of Engineers Act 1967"

Uniform Building By-Laws 1984

Section 2 "engineer means a person who is registered as a professional engineer under any law relating to the registration of engineers and who under the law is allowed to practice or carry on the business of a professional engineer.

Electricity Regulations 1994 (Amendment 2013)

Section 47 "Eligibility to become Competent Electrical Engineer"

Board Functions

c) To order the issuance/imposition written warning/reprimand, fine, suspension, cancellation, removal/reinstatement of Parts III & IV

f) To determine & regulate the conduct and ethics of the engineering profession

d) To fix from time to time the scale of fees to be charged by registered Engineers & ECP for professional engineering services rendered

ea) To act as a stakeholder in a contract for professional engineering services, when requested

e) To hear & determine or appoint committee/arbitrator on disputes relating to professional conduct/ethic of registered Persons

ec) To provide facilities for promotion of learning & education and to hold/cause the professional development programmes, incl. CPD program for enhancing latest knowledge to that profession



Investigating Committee

Conduct investigation from the complaint against the registered person or ECP

Decide either "have case" or "no case" on the complaint

Prepare charge/s against the registered person or ECP for "have case" complaint.



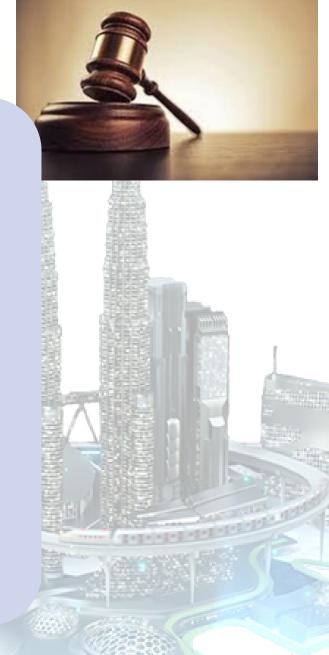


Disciplinary Committee

Conduct hearing of misconduct or complaint investigated by Investigating Committee

Made order under Section 15(1A) against the registered Person

Review "No Case" finding from Investigating Committee against the ECPs





Appeal Board

Hear appeal case from order made by Disciplinary Committee or the Board

May confirm or vary the decision made by the Board or Disciplinary Committee

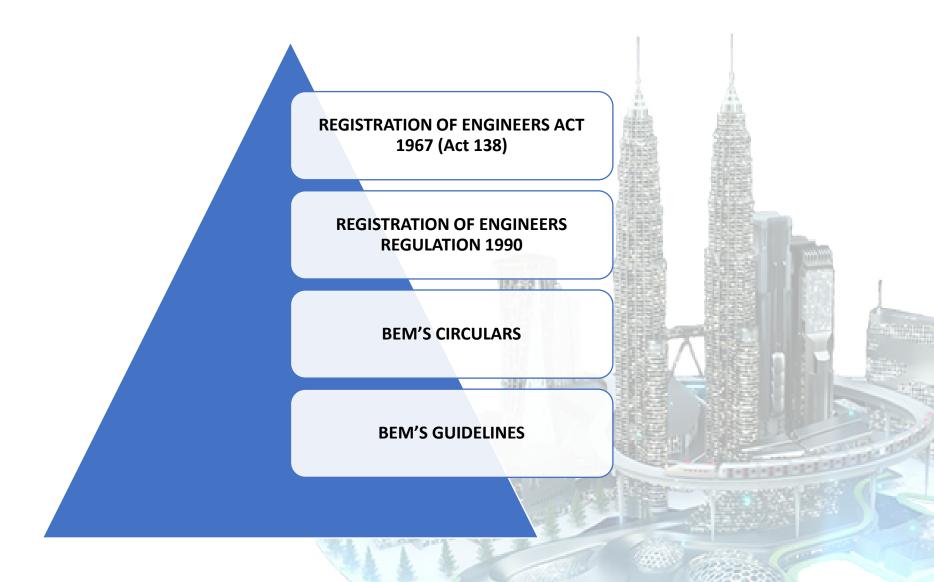
Decision from Appeal Board is final







Reference Hierarchy



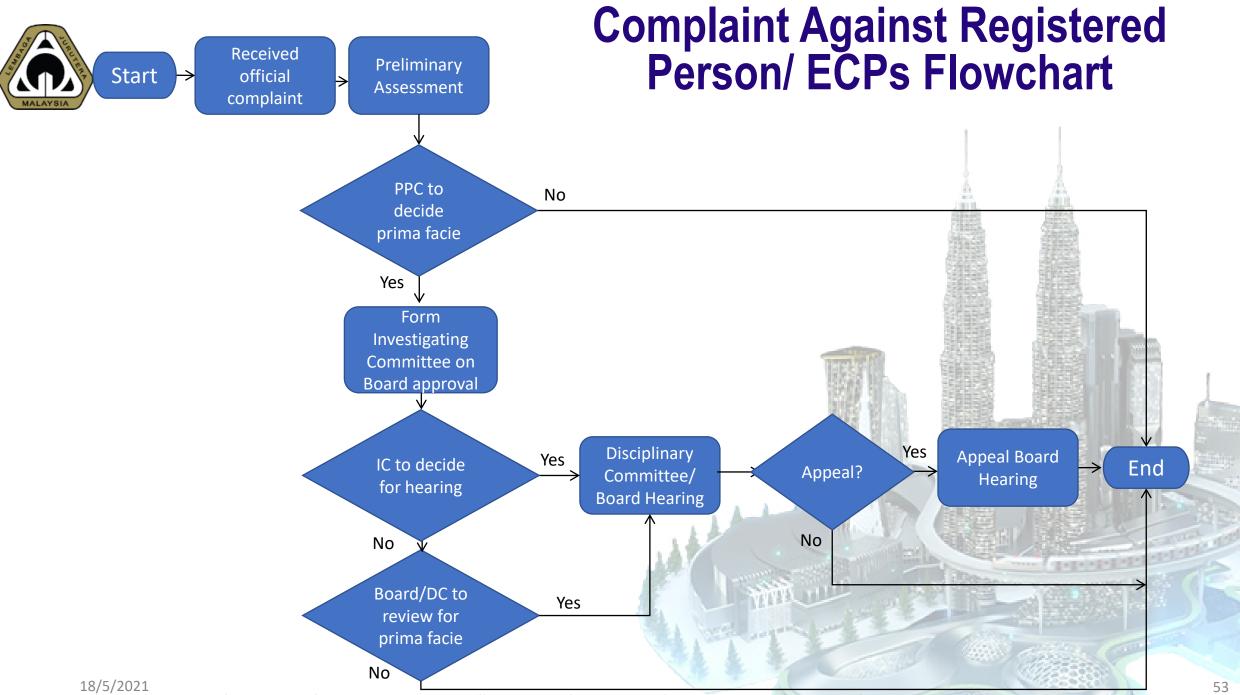
BEM Circulars

| CIRCULAR NO. | TITL | .E | Rev. No.: 1 Date: 27.10.2016 |
|---------------------|---|------------------|---|
| Circular No. 001 | Code of Conduct of Registered Person | | |
| Circular No. 002 | Continuing Professional Development (CPD) | | BOARD OF ENGINEERS MALAYSIA |
| Circular No. 003 | Submission of Sewerage and Sanitary Plumbing | Works | CIRCULAR NO. 001 CODE OF CONDUCT OF REGISTERED PERSON |
| Circular No. 004 | Supervision of Construction Works | | In exercise of the powers conferred by paragraph 4(1)/f) of the Registration of Engineers Act 1967 [Act 138], the Board of Engineers Malaysia hereby determines the Code of |
| Circular No. 005 | Advertising by Registered Engineers | | Conduct of registered Person as stated herein below. This Circular supersedes Circular No. 3/2005, Guidelines for Code of Professional Conduct (BEM/RD/PPC/08). |
| Circular No. 006 | Engineer's Responsibility for Subsurface Investig | gation | This Code of Conduct is in addition to Part IV, Code of Conduct of the Registration of Engineers Regulations 1990. |
| Circular No. 007 | PEPC Endorsement on Certificate of Completion | and Compliand | ce (CCC) and Form Gs |
| Circular No. 008 | Procedure for a Registered Engineer or an ECP to Engineer or an ECP | aking over the \ | Work of Another Registered |
| Circular No. 1/2003 | Guidelines for Checking/Reviewing The Work of Another Engineer | | Checking/Reviewing The er Engineer -Table |
| Circular No. 5/2005 | General Advice On Giving Of Second Opinion | | |
| Circular No. 1/2009 | Payment of Stamp Duty | | 51 |



BEM Guideline

| GUIDELINES NO. | TITLE |
|-----------------------|---|
| Guidelines No. 001 | The Role and Responsibility of Professional Engineers for Temporary Works During Construction Stage |
| Guidelines No. 002 | Industrialised Building System (IBS) Works and It's Impact on Scale of Fees |
| Guidelines No. 003 | The Role and Responsibility of Professional Engineers in Earthworks and Buildings Designed by Different Submitting Person |
| Guidelines No. 004 | General Guidelines for Professional Civil Engineers Undertaking Engineering Survey Works |
| BEM Letter 01 | Submission of Plans by Architects, Professional Engineers and Registered Building Draughtsmen |
| BEM/RD/PPC/11 | A Guide to Good Engineering Practice for M&E Engineers |





Issuance of Certificate of **Completion and Compliance (CCC)**

BEM Circular 009 on Submission of Building Plans by Professional Engineers with Practicing Certificate (PEPC) and Architects.

Appendix B Airport runway & apron Air-conditioning & mechanical ventilation system Bulk handling complex Bridge

Environmental pollution control

Dam

plant

Harbour

Liquid waste disposal plant Cable car system Car parking mechanical system Mass rapid transit system Marine structure & facility Causeway Mechanical service Cement plant Mine Chimney Crane gantry Mining Crushing plant Coffers dam Colliery Oll refinery plant Oll & gas tank D

Distillation & desalination plant Parade ground Piling Drainage scheme Pipe line Dredging & reclamation work Plumbing service Proprietary standard Earthwork beam/truss Electrical distribution system Public address system Pumping ground & stage lighting Electrical services installation Pumping station Electrical switchroom Embankment

Jetty

Flood bund Reclamation Foundation Refinery Refrigeration Installation & cold Fire protection service Retaining wall (major) Roadside furniture & traffic Gravity retaining wall & gabion Grinding plant Roadwork, (public) Reservoir

Quarry

Quay

Sanitary Installation system (for Infrastructural service Incinerator multi storey building) Sewerage work Slipway Solid waste disposal plant Structural system

Stabilising earth structure Storage tank Storm sewer & drain Subsoil drainage system Subway Surface railway

Taxtway Transmission tower Tunnel T.V. transmission tower

Underground railway

Ventilation system

Water distilation plant Water distribution line (hot/cold water service) Waterwork Water & waste water & environmental pollution control Whar

Appendix C

Aerated water factory Aircraft assembly plant Aircraft maintenance workshop & hangar Aircraft manufacturing plant

Boat house (shed) Boller house Brewery Brickwork (factory) Bus depot & workshop

Carparking - multi-storey (standalone) Car parking layout (open) Chemical plant Chimney (domestic) Compressor house

Electrical substation Engineering laboratory Fencing & gate Flatted factory

Glue factory Glass work (factory) Godown Grandstand (uncovered)

Helicopter port

Footing

ice factory Integrated Industrial development' Integrated petrol station development "

Jute mill (building)

Manufacturing, assembling, processing, repair plant & associated building & facility Marine Minor earthwork

Motor vehicles service station

Nuclear power station

Paper mill/factory Perimeter drain work of building within private boundary Pharmaceutical plant

Plywood factory Prefabricated structure Power station (thermal hydro & nuclear) Printing work Private roadwork Pumping station (building)

Rubber factory Rubber processing mill and smoke house Refuse chute system

Sanitary & plumbing installation to domestic house, shophouse & Satellite tracking station Septic tank construction & soak away pit

Single storey factory (with or without mezzanine floor) Swimming pool & anciliary work Steel mill

Shipyard

Space research centre Standard patented structure Store building

Tannery Timber work (sawmill) Textile plant Timber structure

Underground railway station Utilities building

Vegetables of mill & refinery factory

Wall (dwarf, facing & decorative & other non-structural type) Warehouse Workshop

UNDANG-UNDANG KECIL BANGUNAN SERAGAM (TERENGGANU) 1984

BORANG F

PERAKUAN SIAP DAN PEMATUHAN [Undang-Undang Kecil 25]

No. Siri: LJM/T/ 0358

Kepada

Saya dengan ini mengeluarkan Perakuan Siap dan Pematuhan untuk bangunan/bangunan-bangunan atas

Seksven

setelah berpuashati bahawa bangunan/bangunan-bangunan itu telah siap menurut pelan yang diluluskan No.

bertarikh

Saya telah mengawasi pembinaan dan penyiapan bangunan/bangunan-bangunan itu dan sepanjang pengetahuan dan kepercayaan saya kerja/kerja-kerja itu adalah mengikut Akta, Undang-undang Kecil Bangunan Seragam (Terengganu) 1984 dan pelan-pelan yang diluluskan. Saya dengan ini memperakui bahawa bangunan/bangunan-bangunan itu adalah selamat dan layak untuk diduduki.

(Orang utama vang mengemukakan)

Butir-butir orang utama yang mengemukakan

Nama

Alamat

No Pendaftaran L.IM:

Salinan kepada

(a) Pihak Berkuasa Tempatan

(Nama Pihak Berkuasa Tempatan)

(b) Lembaga Jurutera Malaysia (LJM)

* Pemaju, jika ia adalah untuk pembanganan selain rumah berasingan yang dibina secara tunggal atau, pemunya jika ia adalah untuk rumah berasingan yang dibina secara tunggal.

SALINAN ASAI







Penalties - Type (1) Offences

Section 24. Any person, sole proprietorship or body corporate who -

- (a) Procures or attempts to procure registration or a certificate of registration under this Act by knowingly making or producing or causing to be made or produced any false or fraudulent declaration, certificate, application or representation whether in writing or otherwise;
- (b) Wilfully makes or cause to be made any falsification in the register;
- (c) Forges, alters or counterfeits any certificate of registration under this Act;
- (d) Uses any forged, altered or counterfeited certificate of registration under this Act knowing the same to have been forged, altered or counterfeited;
- (e) Impersonates a registered Person;
- (f) Buys or fraudulently obtains a certificate of registration under this Act issued to another registered Person or Engineering consultancy practice;
- (g) Sells any certificate of registration issued under this Act; or
- (h) Contravenes section 7 or 8, or subsection 7A(1), 24a(1) or 24B(5),

Shall be guiltly 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.



Penalties - Type (1) Offences

Section 25(1)

(1) Any person, sole proprietorship, partnership or body corporate who contravenes this Act or any regulations made thereunder shall be guilty of an offence and shall, where no penalty is expressly provided therefor, be liable, on conviction, to a fine not exceeding ten thousand ringgit or to imprisonment for a term not exceeding one year, or to both.



Type (2) Offence: Offender is a Registered Person **Hearing by DC** Offender is an ECP Hearing by Board



Penalties - Type (2) Offences

Subsection 15(1A)

- (1A) The orders referred to in subsection 15(1) are
 - (a) the issuance of a written warning or reprimand;
 - (b) the imposition of a fine not exceeding fifty thousand ringgit;
 - (c) the suspension of registration for a period not exceeding two years;
 - (d) the cancellation of registration.

S.15(1) The DC may make any combination of the orders specified in subsection 15(1A)



BEM's Scale of Fees

 Scale of Fees based on total cost of works times the percentage from the SoF set out by BEM; or

| Total Cost Of Components Of The Works In The Respective Type in RM | P(max) | P(min) | | |
|--|--------|--------|--|--|
| 100,000 & below | 10.00% | 8.25% | | |
| 250,000 | 8.65% | 7.45% | | |
| 500,000 | 7.60% | 6.85% | | |
| 1,000,000 | 6.80% | 6.30% | | |
| 2,500,000 | 6.00% | 5.65% | | |
| 5,000,000 | 5.50% | 5.20% | | |
| 10,000,000 | 5.00% | 4.75% | | |

- Time basis (e.g. salary cost times a multiplier)
- For housing development works, building > 4 storey high, the SOF for Housing Development published on 24th July 1997 shall apply.

P.U. (B) 548.

REGISTRATION OF ENGINEERS ACT 1967

NOTIFICATION OF SCALE OF FEES

IN exercise of the powers conferred by paragraph 4(1)(d) of the Registration of Engineers Act 1967 [Act 138], the Board of Engineers, with the approval of the Minister, fixes the following scale of fees to be charged by registered Professional Engineers for professional advice or services rendered:

- 1. Subject to paragraph 2, every consulting engineer who is engaged by a client to perform any of the professional services described in Part A shall be paid in accordance with the scale of fees described in Part B in addition to the other payments described in Part C.
- 2. (1) Notwithstanding paragraph 1 and if the consulting engineer is being paid in accordance with sub-subparagraph 1(1)(a) of the scale of fees described in Part B, the scale of fees provided in Table A of sub-subparagraph 1(1)(e) of Part B shall not apply to buildings in housing development works.
 - (2) For housing development works, if the buildings are not more than four storeys high, the "Scale of Fees for Housing Development" published on 24th July 1997 under *Gazette* Notification No. P.U. (B) 288/1997 shall apply.



Summary of Annual CPD Requirement

• For renewal annual Certificate of Registration:

PEPC

•50 CPD Hours per year

PE

•25 CPD hours per year

IOW

•30 CPD hours triennial years



Statistic & Requirement

DISCIPLINARY COMMITTEE

- **14A.** (1) The Board shall appoint a Disciplinary Committee which shall consist of the following members:
 - (a) a Chairman who shall be a registered Professional Engineer with Practising Certificate;
 - (b) a registered Professional Engineer; and
 - (c) a registered Professional Engineer with Practising Certificate.
- **20.** For the purpose of this Part there shall be established an Appeal Board consisting of a Judge of the High Court as Chairman who shall be appointed by the Yang di-Pertuan Agong (after consultation with the Chief Justice) and two other persons appointed by the Yang di-Pertuan Agong.

Appeal Board.

LIST OF HEARING CASES AND PENALTIES IMPOSED UNDER THE REGISTRATION OF ENGINEERS ACT 1967 (2004 - 2017)

| No | Respondent | Contravened REA 1967/ RER 1990 | Date of Order | Penalty | | | |
|-----|---|--|------------------|---|--|--|--|
| 1. | Wong Yuen Kean (PE No. 1434) | Rule 26 of Rules 1972 (corresponding to Rule 24 of RER 1990) | 20.8.2004 | Cancellation of PE Registration Appeal Board (29.7.2005) upheld Board's Decision | | | |
| 2. | Sik Chok Yuen (GE No. 890A) | Section 7(1)(aa)(iii) & Section 8(1) | 9.6.2006 | i. Cancellation of GE Registration ii. Fine of RM5,000.00 | | | |
| 3. | Ir. Tee Swee Hock (PE No. 5690) | Regulation 31 | 14.8.2007 | 6 months suspension (14.8.2007 until 13.2.2008) | | | |
| 4. | Ir. Mohd Hasan bin Sulaiman (PE No. 7901) | Regulation 23 | 26.5.2008 | i. Fine of RM4,000.00 ii. Written Reprimand | | | |
| 5. | Mat Anuar bin Hasan (GE No. 6184A) | Section 7(1)(aa)(iii) | 8.7.2008 | Written Reprimand | | | |
| 6. | Ridzuan bin Abd Malik (PE No. 8375) | Section 15(1)(fb) | 21.8.2009 | Cancellation of PE registration Appeal Board (9.12.2009) upheld DC's Decision | | | |
| 7. | Ir. Ng Kok Chong (PE No. 6818) | Regulation 24 | 26.5.2009 | 2 weeks suspension (26.5.2009 until 8.6.2009) | | | |
| 8. | Ir. Herman Lee (PE No. 4248) | Section 15(1)(m) | 17.12.2009 | Fine of RM2,000.00 | | | |
| 9. | Ir. Wong Fook Kan (PE No. 7666) | Regulation 25(1) | 17.5.2010 | 1 month suspension (17.5.2010 until 16.6.2010) | | | |
| 10. | Ir. Lee Peng Thiam (PE No. 10454) | Regulation 32(1) | 10.8.2010 | i. Fine of RM2,000.00 ii. Written Warning | | | |
| 11. | Pang Fook Sheng (PE No. 4496) | Rule 26 of Rules 1972 | 13.8.2010 | Cancellation of PE registration Appeal Board (30.1.2012) upheld Board's Decision | | | |



International Affiliations



National Monitoring Committee (NMC)





International Engineering
Alliance (IEA)



ASEAN Chartered Professional Engineer Coordinating Committee (ACPECC)



International Engineering Alliance



ASIA-PACIFIC
ECONOMIC
COOPERATION
[APEC] AGREEMENT
(15 COUNTRIES) –
IEM 2000

INTERNATIONAL
ENGINEERING
TECHNOLOGISTS
AGREEMENT [IETA]
(7 COUNTRIES)

INTERNATIONAL
PROFESSIONAL
ENGINEERS
AGREEMENT [IPEA]
(16 COUNTRIES) –
IEM 1999

COMPETENCE AGREEMENTS AGREEMENT OF INTERNATIONAL ENGINEERING TECHNICIANS [AIET] (6 COUNTRIES) WASHINGTON
ACCORD FOR
ENGINEERING
ACADEMIC PROGRAM
(21 SIGNATORIES) –
BEM 2009

SYDNEY ACCORD FOR ENGINEERING TECHNOLOGY ACADEMIC PROGRAM (11 SIGNATORIES) – BEM 2018

DUBLIN ACCORD FOR ENGINEERING TECHNICIANS ACADEMIC PROGRAM (9 SIGNATORIES) – BEM 2018

EDUCATIONAL ACCORDS

18/5/2021 64



ASEAN PROFESSIONAL MOBILITY

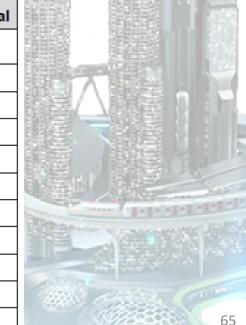


ASEAN
Chartered
Professional
Engineer
(ACPE)

| Brunei | Cambodia | Indonesia | Laos | Malaysia | Myanmar | Philippines | Singapore | Thailand | Vietnam |
|--------|----------|-----------|------|----------|---------|-------------|-----------|----------|---------|
| 32 | 84 | 1175 | 17 | 921 | 611 | 609 | 303 | 228 | 302 |
| 4340 | | | | | | | | | |

Registered
Foreign
Professional
Engineer
(RFPE)

| | | Professional Regulatory Authority (PRA) | | | | | | | | | | |
|------|-------|---|----|----|----|----|----|----|----|----|----|-------|
| | | BN | CA | ID | LA | MY | MM | PH | SG | TH | VN | Total |
| | BN | - | | | | | | | | | | 0 |
| | KH | | - | | | | | | | | | 0 |
| | ID | | | - | | | | | | | | 0 |
| ш | LA | | | | - | | | | | | | 0 |
| | MY | | 6 | | | - | 4 | 0 | 0 | | | 10 |
| RFPE | MM | | | | | 0 | ı | | 1 | 0 | | 1 |
| _ | PH | | | 1 | | 2 | | ı | | | | 3 |
| | SG | | 1 | | | 4 | 2 | | - | | | 7 |
| | TH | | 6 | | | 1 | 4 | | | ı | | 11 |
| | VN | | | | | | | | | | - | 0 |
| | Total | 0 | 13 | 1 | 0 | 7 | 10 | 0 | 1 | 0 | 0 | 32 |



18/5/2021

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Understanding The Different Roles

Board of Engineers Malaysia (BEM)



The Board of Engineers Malaysia (BEM) is a statutory body constituted under the Registration of Engineers Act 1967. Its primary role is to regulate the practice of engineering under the Act and its provisions to protect public interest. Registration with BEM is mandatory if to practice engineering.

Institution of Engineers Malaysia (IEM)

A professional & learned body registered under the Registrar of Society to promote science & profession of engineering in any of its disciplines, to facilitate the exchange of information & ideas related to engineering as well as networking, learning and socializing. Registration with IEM is voluntary.

Malaysian Board of Technologist (MBOT)

The Malaysian Board of Technologist (MBOT) is a statutory body constituted under the Technologist and Technicians Act 2015. Its primary role is to recognize Technologist and Technician as professionals.

Registration with MBOT is voluntary.



- Registration of Engineers Act 1967 (Revised 2015)
- Registration of Engineers Regulations 1990 (Revised 2015)
- BEM Notification of Scale of Fees 1998
- BEM Annual Reports





BOARD OF ENGINEERS MALAYSIA

Tingkat 11 & 17, Blok F Ibu Pejabat JKR
Jalan Sultan Salahuddin, 50580 Kuala Lumpur
http://www.bem.org.my

enquiry@bem.org.my or complaint@bem.org.my.

Tel: 03-26912090; 03-26107095/96 Fax: 03-26925017

18/5/2021