

Date: 6th October 2020

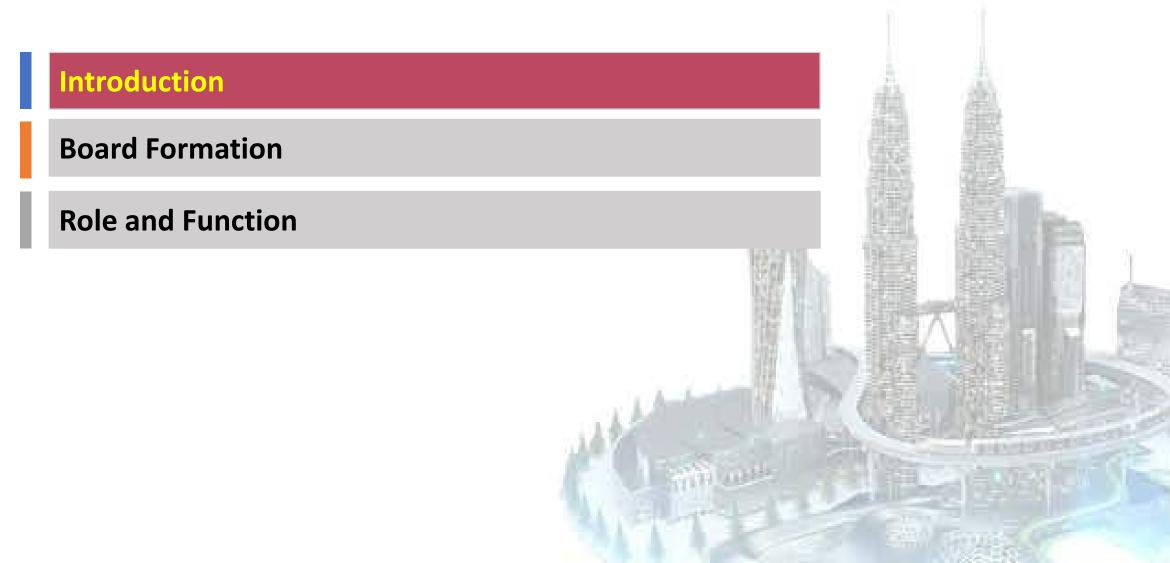
ROLES AND FUNCTIONS OF BOARD OF ENGINEERS MALAYSIA



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Outline of Presentation



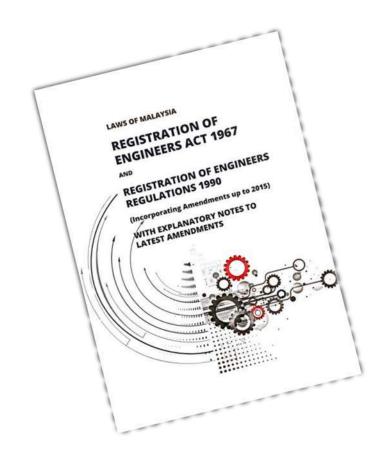


Before 1967 there was no Engineers Act similar to the Laws in the UK (which until

today there is no Engineers Act) Star GLENN GUAL The Act was enacted in Malaysia due to a building failure in Kuala Lumpur in the 1960s.



THE PURPOSE OF THE ENGINEERS' ACT



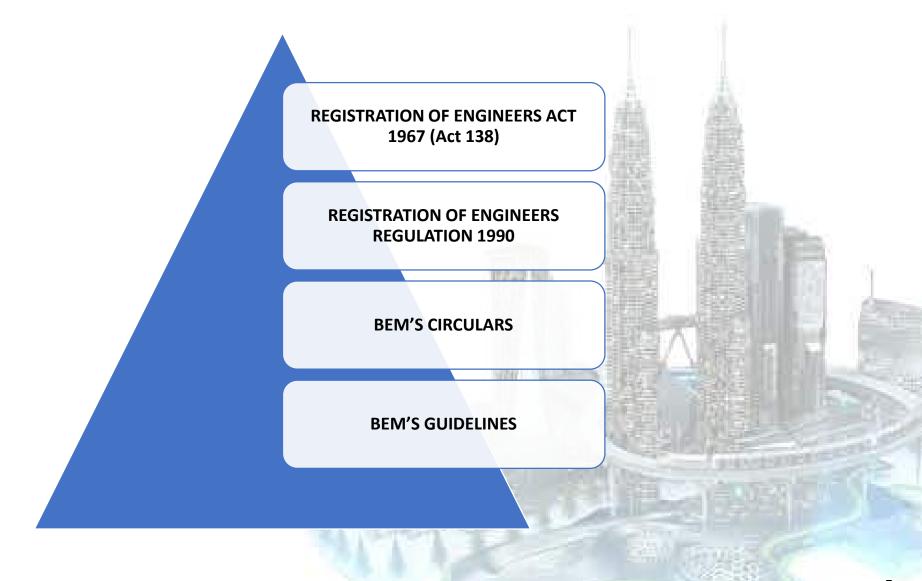
To **protect the public** by legislative control so that the practice of engineering, which has a bearing on <u>public safety</u>, health and welfare, can only be carried out by <u>licensed</u> professional engineers.

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; qualifications for licensing; and code of professional conduct for registered engineers;



Reference Hierarchy



BEM Circulars

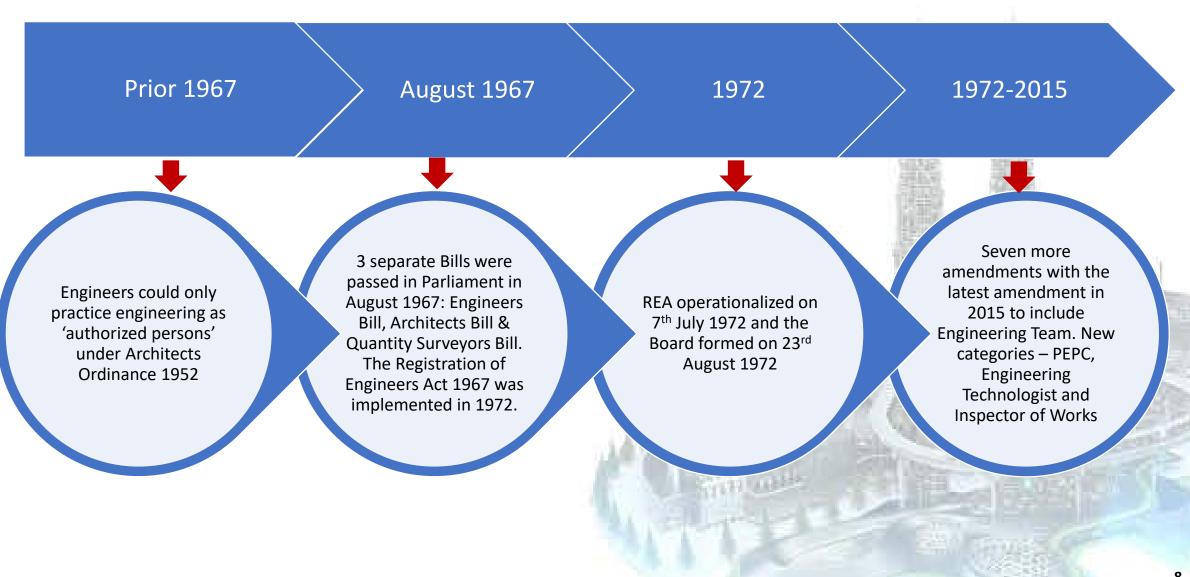
CIRCULAR NO.	TITL	.E	Rev. No.: 1 Date: 27.10.2016
Circular No. 001	Code of Conduct of Registered Person		
Circular No. 002	Continuing Professional Development (CPD)		BOARD OF ENGINEERS MALAYSIA CIRCULAR NO. 001
Circular No. 003	Submission of Sewerage and Sanitary Plumbing Works		CODE OF CONDUCT OF REGISTERED 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 Conduct of registered Person as stated herein below.
Circular No. 005	Advertising by Registered Engineers		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 Investigation This Code of Conduct is in addition to Part IV, Code of Conduct of the Registratic Engineers Regulations 1990. This Code of Conduct is in addition to Part IV, Code of Conduct of the Registratic Engineers Regulations 1990.		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 Compliance (CCC) and Form Gs		
Circular No. 008	Procedure for a Registered Engineer or an ECP taking over the Work of Another Registered Engineer or an ECP		
Circular No. 1/2003	Guidelines for Checking/Reviewing The Work of Another Engineer		Checking/Reviewing The ner Engineer -Table A : Table
Circular No. 5/2005	General Advice On Giving Of Second Opinion		
Circular No. 1/2009	Payment of Stamp Duty		6



BEM Guideline

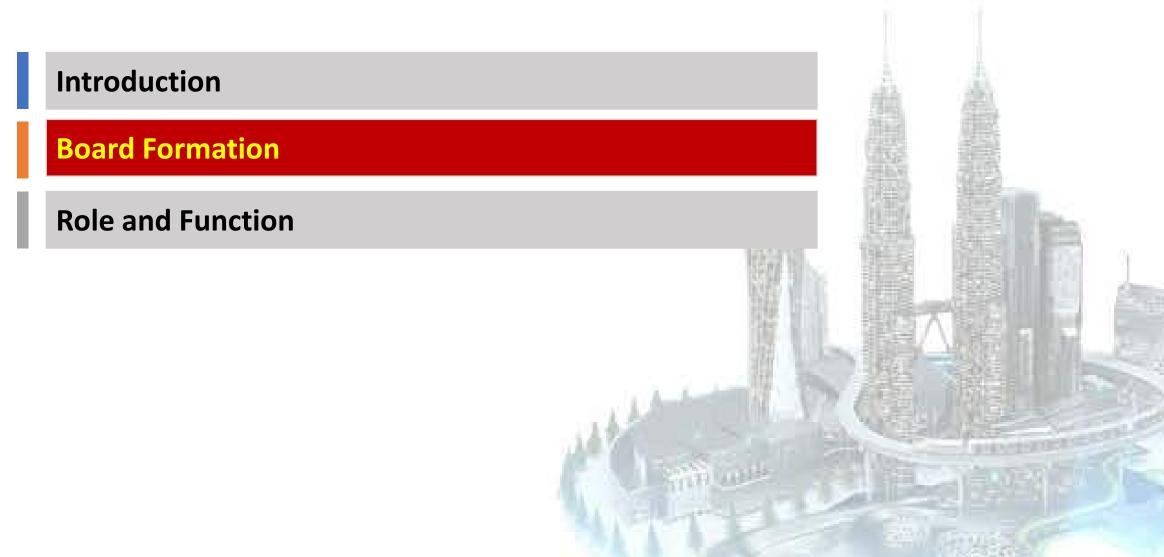
GUIDELINES NO.	TITLE
Guidelines No. 001	The Role and Responsibility of Professional Engineers for Temporary Works During Construction Stage
Guidelines No. 002	Industrialised Building System (IBS) Works and It's Impact on Scale of Fees
Guidelines No. 003	The Role and Responsibility of Professional Engineers 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

The Registration of Engineers Act 1967 (REA)





Outline of Presentation





P.U. (A) 128.







(Incorporating amendments up to 2015)

LAWS OF MALAYSIA

ACT 138



LEMBAGA JURUTERA MALAYSI BOARD OF ENGINEERS MALAYSIA

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Authoritative pented request of the Federal Constrainest Gozette can be obtained from <u>Ferrentian Neuronal Mulician</u>.

Found from www.imm.org.acy

REGISTRATION OF ENGINEERS ACT 1967

(Incorporating amendments up to 2015)



Note:

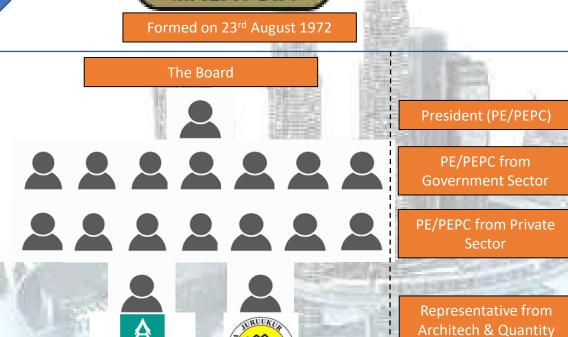
print-out from this website is NOT A COPY of the Gazette printed by the Government Printer for the purposes of section 61 of the represention Acts 1948 and 1967 [Act 384] and does not constitute prises facts evidence of the contents of the Gazette by virtue of the

mative printed copies of the Federal Government Gazette can be obtained from <u>Percetakan National Malaysia Berhad</u>

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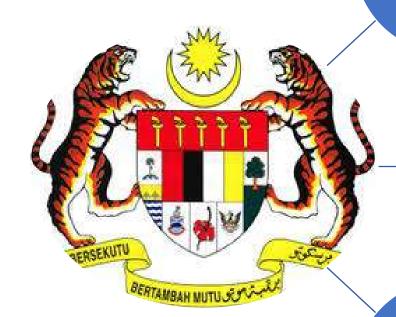
Surveyor Boards



Board Appointment

President

under Section 3(2)(a) of REA



16 Board Members under Section
 3(2)(b), 3(2)(c) and
 3(2)(d) of REA



Under Regulation9 of RER

MINISTER OF WORKS MALAYSIA

Note:

REA = Registration of Engineers Act 1967

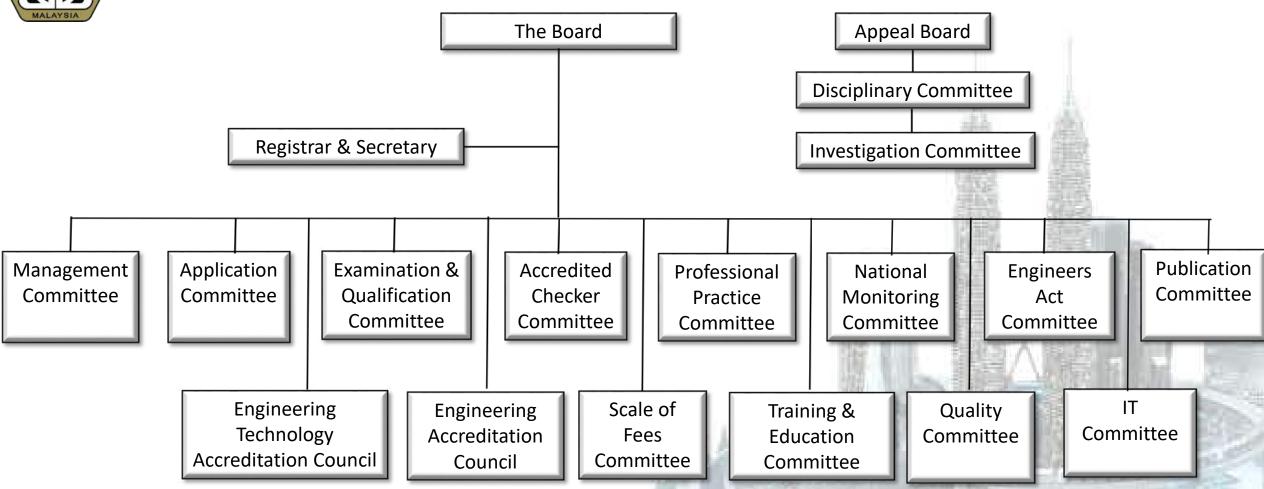
RER = Registration of Engineers Regulation 1990

Registrar

under Section 6(1) of REA

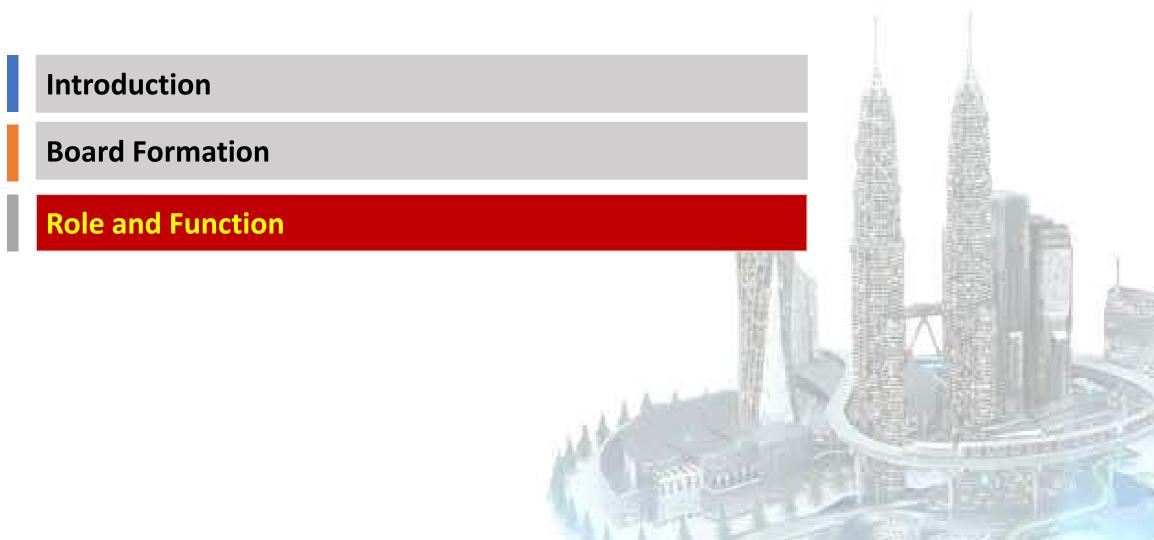


Committee Organization Chart





Outline of Presentation



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

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

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

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

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

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

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

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

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

f) To determine & regulate the conduct and ethics of the engineering profession 14

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



Management Committee

Finance matter

Procurement matter

Administration matter



LAWS OF MALAYSIA

ONLINE VERSION OF UPDATED TEXT OF REPRINT

Act 240

STATUTORY BODIES (ACCOUNTS AND ANNUAL REPORTS) ACT 1980

As at 1 December 2011



Application Committee

Maintain the Register

Approve application

Reject application



Board Functions

a) To keep and maintain the Register

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



Registration Type

Registered Person

- Graduate Engineers
- Professional Engineers
- Inspector of Works
- Engineering Technologist
- Professional Engineers with Practicing Certificate

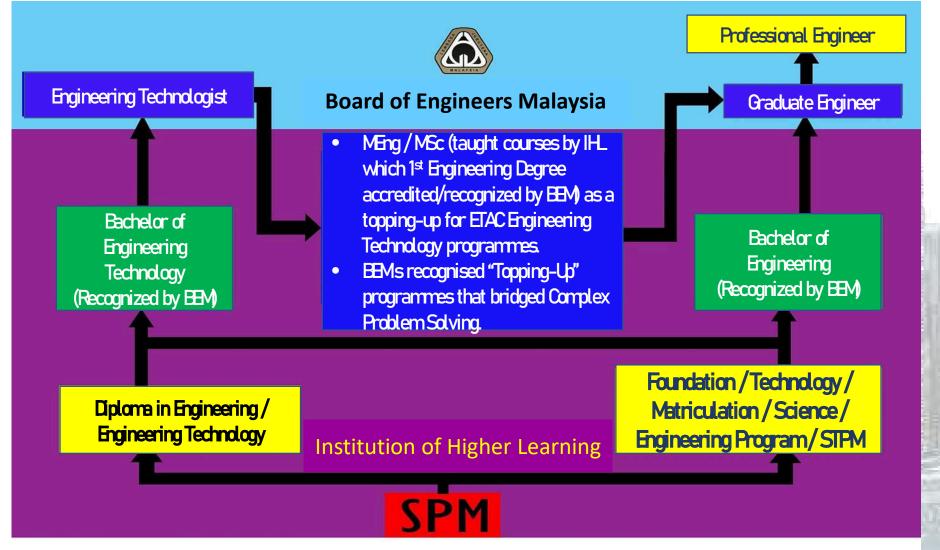
Business Entities

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





Engineering Academic Pathway





Examination & Qualification Committee

PAE

PCE

Qualifying Policy



Board Functions

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

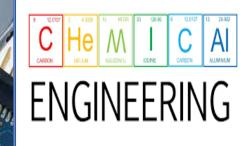
eg) To cause examinations to be conducted by an institution recognized by the Board for the purpose of admission to the profession



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

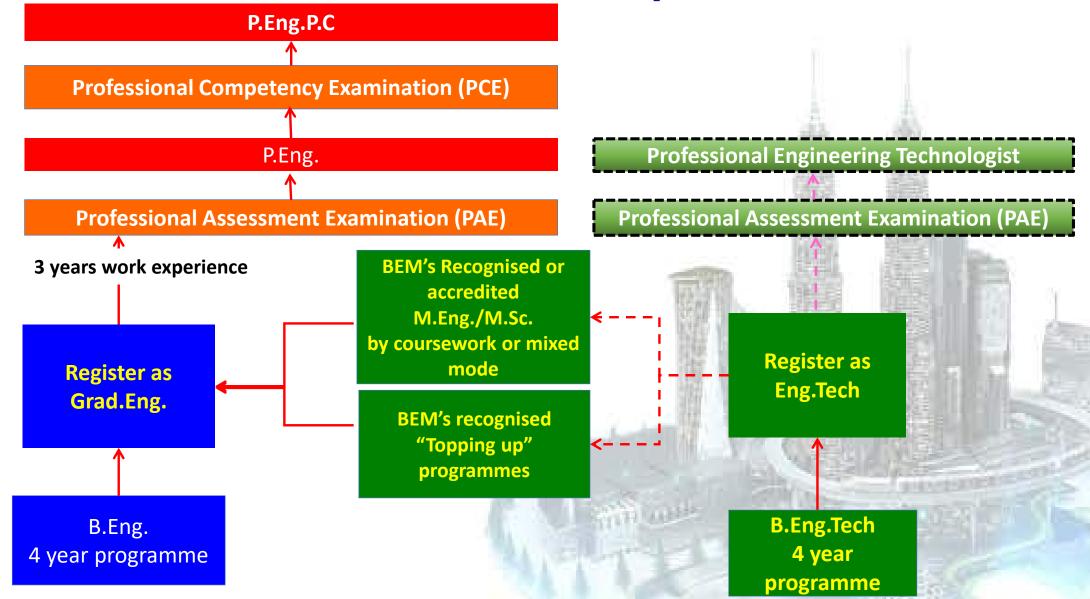
- Computer
- Electronics
- Communication

Chemical

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



Professional Pathway





Engineering Accreditation Council

Maintain list of accredited engineering degree programs

Accrediting Engineering Degree Program

Develop best practice in engineering education



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 incl the certification of such programs



Accredited Engineering Degree – 329 programs at 48 IHLs



































































UNIVERSITI

MALAYSIA

MAP PERLIS

















SWINBURNE













Washington Accord Signatories



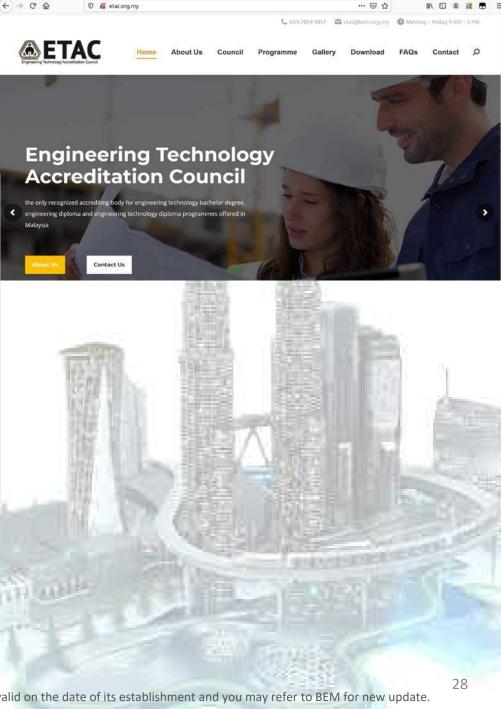


Engineering Technology Accreditation Council

Maintain list of accredited engineering technology degree program

Maintain list of accredited engineering/engineering technology diploma program

Accrediting engineering technology degree and engineering/engineering technology diploma program



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 incl the certification of such programs

Ccredited Engineering Technology Degree – 44 programs at 5 IHLs











Sydney Accord Signatories





Accredited Engineering Diploma – 142 programs at 34 IHLs





























































POLITEKNIK





Dublin Accord Signatories



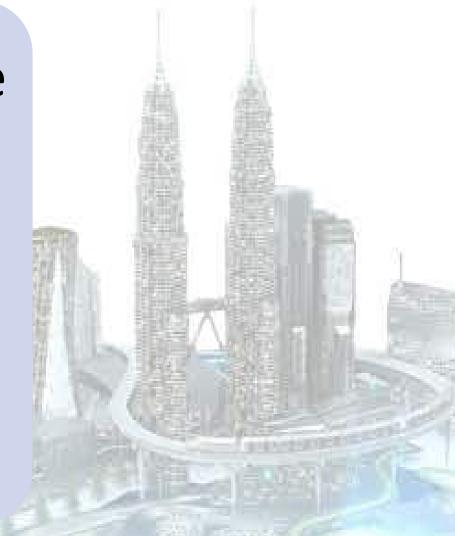


Professional Practice Committee

assessing complaints and disputes relating to conduct or ethics of registered Persons and ECPs

recommend to the Board the appointment of IC for cases where PPC finds there are *prima facie* grounds for further investigation

Prepare code of conducts, circulars and guidelines on matters relating to professional practice

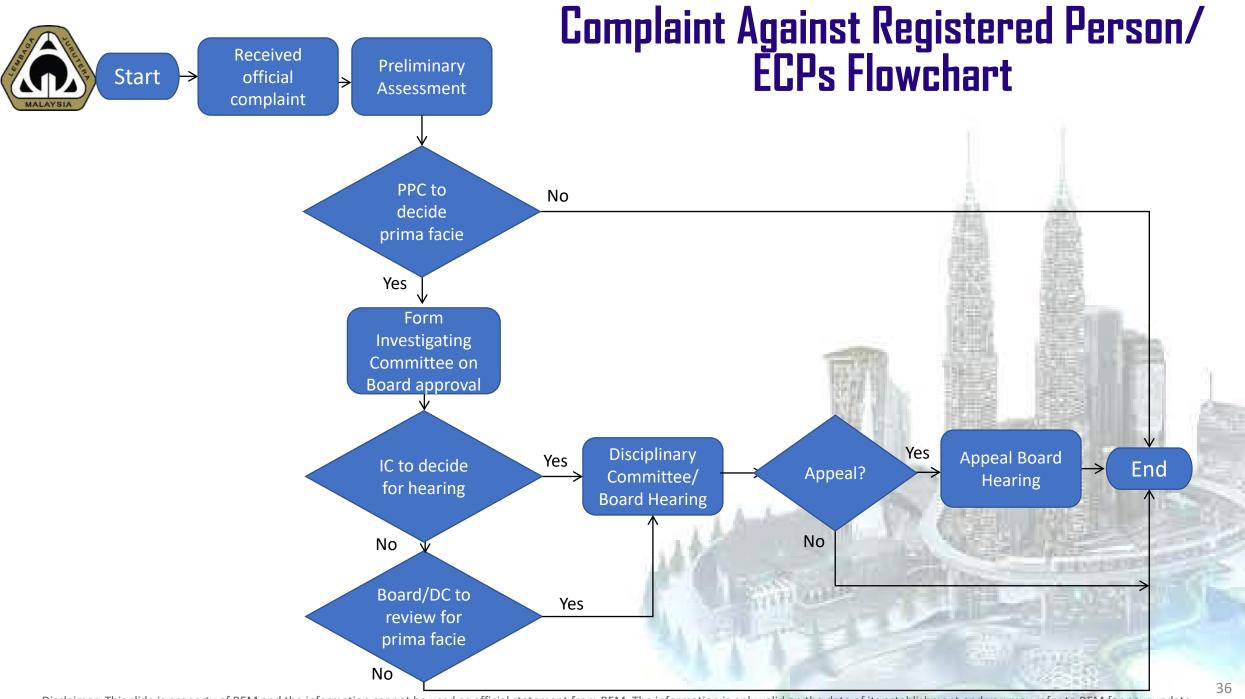


Board Functions

 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 requested

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





Lodged Complaint Case

Complaint Against		New Case	Prima Facie Case		
	Registered Person		Yes	No	
	2017	47	28	19	
	2018	66	23	43	
	2019	59	38	21	



Issuance of Certificate of Completion and Compliance (CCC)



UNDANG-UNDANG KECIL BANGUNAN SERAGAM (TERENGGANU) 1984

BORANG F

PERAKUAN SIAP DAN PEMATUHAN [Undang-Undang Kecil 25]

No. Siri: LJM/T/	0358
Tarikh:	

Kepada:

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

Seksyen

Jalan

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

bertarikh

Saya telah mengawasi pembinaan dan penyiapan 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 yang mengemukakan)

1. Butir-butir orang utama yang mengemukakan

Nama :

Alamat:

No. Pendaftaran LJM:

- Salinan kepada
 - (a) Pihak Berkuasa Tempatan:

(Nama Pihak Berkuasa Tempatan)

- (b) Lembaga Jurutera Malaysia (LJM)
- * Pemaju, Jika ia adalah untuk pembangunan selain rumah berasingan yang dibina secara tunggal atau, pemunya jika ia adalah untuk rumah berasingan yang dibina secara tunggal.



Stakeholder Case

Stakeholder Cases in 2019	Amount Deposited to BEM as Stakeholder in 219
5	RM560,000.00



Accredited Checker Committee

Maintain the Register

Approve application

Reject application



Board Functions

a) To keep and maintain the Register

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



Statistic & Requirement

Accredited Checker	2020
Structural	14
Geotechnical	14
TOTAL	28

Bill Street, Drainage and Building Act (Amendment) 2018: Sub Section 70 (2)(c):

"to local authority or the relevant statutory authority a geotechnical report for erection involving slope with a gradient more than twenty five degrees and total vertical height more than ten meters which the report shall be verified by the Accredited Checker registered with the Board of Engineers under the Registration of Engineers Act 1967"

Requirement for registration

- (a) Professional Engineer with Practising Certificate;
- (b) at least 10 years relevant practical experience in the design and construction of buildings as defined in the Street, Drainage and Building Act 1974 [Act 133]; and
- (c) he satisfies the Board that by virture of his ability, standing in the profession, special knowledge or practical experience.



Engineers Act Committee

attend to any enquiry pertaining to the Engineers Act and Regulations;

Advise Board on other Acts and Bills that may affect or infringe the engineering profession

Draft amendment of REA and RER





History of Act 138

1967	The REGISTRATION OF ENGINEERS ACT 1967
	was enacted (Act No. 66 of 1967)
1972	Amendments (Act A132 - Operationalised on 7.7.1972)
1972	Amendments (Act A173 - 23.8.1972)
1974	Amendments (Act A218 - 22.2.1974)
1987	Revised to be REGISTRATION OF ENGINEERS ACT 1967 (Revised 1987) (Act A662 - 16.1.1987)
2002	Revised to be REGISTRATION OF ENGINEERS ACT 1967 (Revised 2002) (Act 1158 - 1.12.2002)
2007	Revised to be REGISTRATION OF ENGINEERS ACT 1967 (Revised 2007) (Act A1288 - 1.4.2007)
2015	Amended to be REGISTRATION OF ENGINEERS ACT 1967 (Revised 2015) (Act A1479 - 31.7.2015)



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"



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.



PE & PEPC

Section 8(1)

"....no person or body, other than a Professional Engineer with Practicing Certificate who is residing and practicing in Malaysia or an Engineering Consultancy Practice providing professional engineering services in Malaysia, shall be entitled to submit plans, engineering surveys, drawings, schemes, proposals, reports, designs or studies to any person or authority in Malaysia."

Section 8A

"A Professional Engineer may submit plans or drawings to any person or authority in Malaysia where such plans or drawings are in relation to an equipment, a plant or a specialized product invented or sold by him or his employer.



Penalty

Section 24(h)

"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."



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"



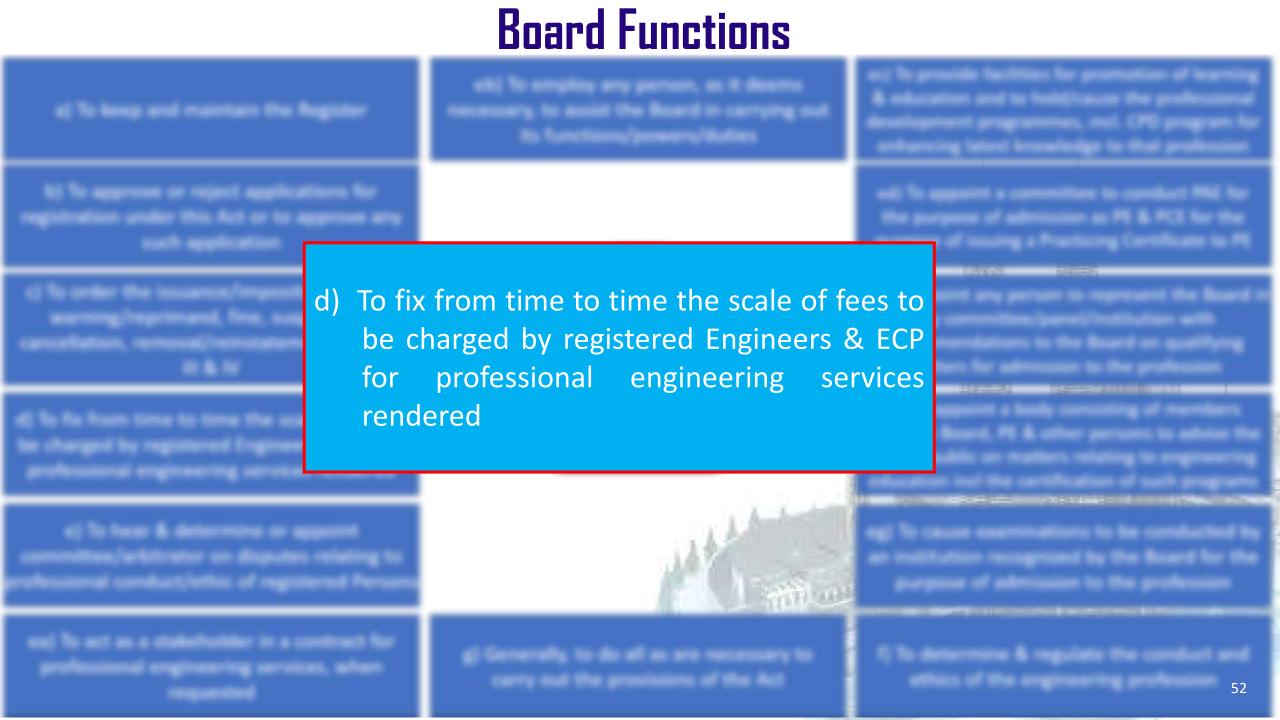
Scale of Fees Committee

Review SOF from time to time and make recommendation to the Board

attend to any enquiry pertaining to the Engineers Act and Regulations;

Draft amendment of SOF







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:

- 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.
- 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.



Quality Committee

Custodian of BEM's Quality Management System

Championing BEM's 5 Years Strategic Plan.

Custodian of BEM's Risk Management

To review the overall performance of the Board's QMS and make recommendations to the Board for effective enhancement of the QMS.





Corporate Focus

Vision

A highly respected and authoritative body in engineering that ensures safety, health and interest of the public.

Mission

Regulate engineering services provided are of high quality, delivered with due diligence, conforming to professional ethics and benchmarked to the best practices.





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 (BOARD OF ENGINEERS, MALAYSIA 17TH FLOOR, IBU PEJABAT JKR KOMPLEKS KERJA RAYA 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

FULFILLING THE FUNCTIONS AS PRESCRIBED IN SECTION 4 OF THE REGISTRATION OF ENGINEERS ACT. 1967, INCLUSIVE OF:

- A MAINTAINING PEGISTER OF PEGISTERED PERSONS
- 2) PROCESSING APPLICATIONS FOR REGISTRATION
- 3) ASSESSING OF ACADEMIC QUALIFICATIONS:
- REGULATING THE PRACTICE AND CONDUCT OF
 THE ENGINEERING PROFESSION:
- 5) FIXING THE SCALE OF FEES.



ssue date

16 February 2019

Original certification date

16 February 2001

Expiry date

: 15 February 2022

Certificate no

: QMS 00875

national Sdn. Bhd. arcsony No. 410334-30

1, Persiaron Data' Menteri Section 2, P. C. Bax 7035 40700 Shah Alam Selangar Darvi Ehsen MALAYSA

Fel: 60-3-5544 6464 nx: 60-3-5544 6787

tp://www.sirim.gos.com.my

Nohd Azanuddin Salleh Nanaging Director

SIRIM QAS International Sdn. Bhd.



Training & Education Committee

To plan and monitor the implementation of CPD for registered persons.

To encourage, initiate, motivate and where necessary assist in the conducting of activities such as courses, workshops, seminars suitable for registered persons.

To keep abreast of development in the training and education of registered persons and to advise the Board.





Board Functions

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



CPD Requirement by Professional Bodies





MALAYSIAN INSTITUTE
OF ACCOUNTANTS

ACCOUNTANTS: MANAGERS OF VALUE







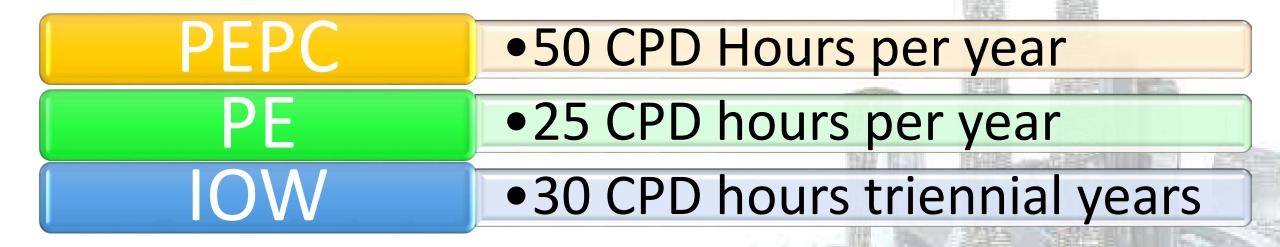
Board of Architects Malaysia Lembaga Arkitek Malaysia





Summary of Annual CPD Requirement

• For renewal annual Certificate of Registration:





Activities



















National Monitoring Committee

Perform the functions of the Monitoring Committee, i.e. MC as per Article of 4.2 of the ASEAN MRA on Engineering Services

Represent the Board in meetings in meetings / conference in matter related to International Engineering Alliance such as APEC register, IntPE, Washington Accord, Sydney Accord and Dublin Accord

Actively participate in international organisation: in matter related to best engineering practice to safeguard the Malaysian engineering discipline











Professional Mobility



BEM as the caretaker



Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
31	80	1174	15	807	618	595	295	226	270

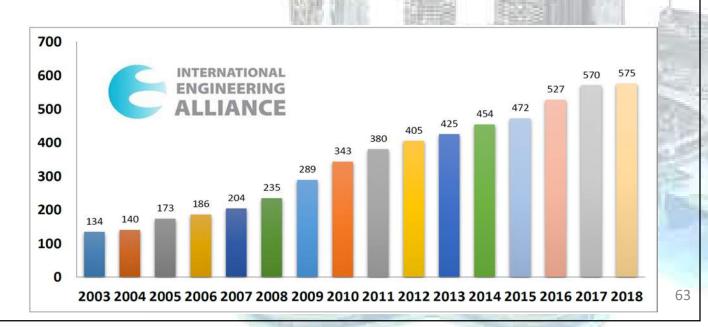
4111 (as of Sep 2020)



IEM as the caretaker









Publication Committee

Define corporate identity and build up image of BEM among stakeholder

production of publications of BEM such as *The Ingenieur*, booklets etc.

drafts of publicity materials, information booklets, media releases and speeches and other related publication, which will support the role of BEM



MALAYSIA SOL PP 11750LOGIS GRACING CONTROL PROPERTY AND A PARK A

Publication Activities







Media

Likes

Tweets & replies





Tweets

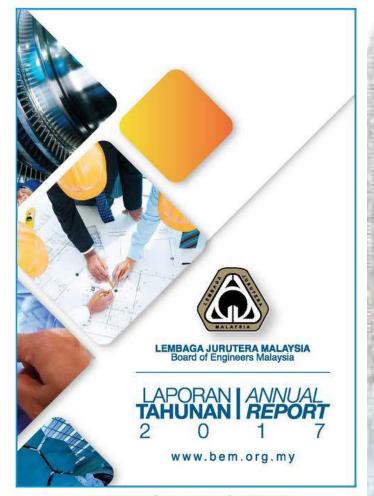


BEM's Annual Report

Annual Report



Annual Report 2018



Annual Report 2017

Universiti awam, swasta gabung, ubah kursus bagi penuhi kebolehpasaran

Kuala Lumpur. Sebanyak 55 Eksklusif mosuk tisah permintaan daripada pelajar serta kandungan kursus pengajian yang hampir sama di

gan kemajuan dalam bidang

duan neemillii kebolehpasarun keluruteraan itu membatitaan li muu sunisersiti awasun (IA) dan tu ubu unisersiti swassa. Lima (IA betkomaan lalah Uni

III Tekimkai Malaysia Sielakai PTeMi, Universiti Malaysia Sa-awak (UNIMAS), Universiti Per-chanan Nasional Malaysia (UP-170) dan Universiti Molaysia Per-

mata yang terbabit tapkan 12 ciri dalam pengeluaran FFD. University Selangor (UNI-SEL), MADINA University Univer-sity distinction of Nottingham Malaysia (UNIMC), Swinburne University dan Manipul International University waith berpandultan sepada 12 ciri ini untuk meng-



yang ketat," katanya ketika di-temul BH.

Megat Johari menjelaskan, su-tera kawalian itu adalah mene-

matematik seria mampu melak

55 PROG Gaji jurutera statik

Bayaran tak beruban Newsprint kekurangan sejak 20 tahun lalu

Graduan baharu kerja di bandar utem hanva terima gaji permulaan RM2,500

RABU, 23 OKTOBER 2019

Oleh Ilah Hafiz Aziz UPNM Illahhafiz.abdulaziz@bh.com.my

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

an baharu kejuruteraan hanya dak mahu melabur untuk memmenerima bayaran kurang MMI RM2,500 sebulan, bukan gaji lumayan seperti yang dipercayai HNMI masvarakat.

Kadar gaji itu pula hanya ditawarkan di bandar besar seperti MI di Lembah Klang, di mana permintaan pasaran adalah tinggi manakala kadar gaji di kawasan bukan bandar besar adalah lebih

Ahli Lembaga Jurutera Malaysia (LJM), Megat Johari Megat Mohd Noor, berkata universiti

berharga untuk dibayar, menjadi punca bidang kejuruteraan negara masih tidak meningkat ke tahap yang sepatutnya.

Eksklusif

"Industri tidak melihat kepada kemahiran dan mereka lebih berminat mendapatkan tenaga luar seperti dari negara jiran yang akan menerima apa saja tawa-

"Industri juga berasakan graduan kejuruteraan tidak bersedia Difahamkan, ketika ini gradu- untuk membuat kerja, tetapi tiberi latihan dan pengalaman yang

"Keadaan ini menyebabkan taraf gaji jurutera negara hari ini dalam keadaan tertekan kerana industri tidak berusaha untuk meningkatkan tahan kemahiran jurutera," katanya kepada BH.

BH difahamkan, graduan kejuruteraan ditawarkan gaji sekitar RM2,500 dan hanya akan menikmati kenaikan setaraf selenas

Mereka yang ditawarkan jawa-Compiled by DI tempatan menghasilkan kira-kira tan pembantu jurutera pula ha-10,000 graduan kejuruteraan se-nya akan menerima gaji sekitar



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

Megat Johari Megat Mohd Noor, Malavsia perlu 300,000 kepakaran capai tahap negara maju

Bksklusif

Oleh Ilah Hafiz Aziz illahhafiz.abdulaziz@bh.com.my

Kuala Lumpur: Meskipun graduan kejuruteraan negara berdepan kesukaran mencari pekerjaan, namun Malaysia ketika ini 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

kepakaran itu untuk mencapai tahap negara maju.

150,000 jurutera

Ini berikutan, keperluan bidang kejuruteraan bagi negara maju dihitung dengan nisbah 1:100 (seorang jurutera/ teknologis kejuruteraan bagi 100 penduduk) dan ketika ini, penduduk Malaysia berjumlah 29 juta orang.

Antara punca kekurangan kepakaran ini yang dikesan Lembaga Jurutera Malaysia (LJM) adalah bilangan teknologis kejuruteraan masih kecil berbanding

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-

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

mampu survival dan

diterima industri.

Megat Johari Megat Mohd Noor. Ahli Lembaga LIM

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

"Contohnya dalam industri minyak, tiada siapa menduga keiatuhan ini, namun universiti tidak boleh berdiam diri, sebalik nya 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," ka-



Keratan BH 6 Disember Jalu

tanya kepada BH, baru-baru ini. Laporan BH Jumaat lalu, men-

dedahkan 55 program kejuruteraan di universiti tempatan di negara ini digugurkan atas pelbagai faktor termasuk tiada permintaan daripada pelajar dan kandungan kursus pengajian hampir sama di setiap universiti.

Ia membabitkan lima universiti awam dan tujuh universiti swasta. Antara universiti berkenaan adalah Universiti Teknologi MARA (UiTM), Universiti Malaya (UM), Universiti Teknikal Malaysia Melaka (UTeM), INTI International University (INTI), Universiti Selangor (UNISEL), MAHSA University dan Universiti Multimedia

Pengerusi Mailis Akreditasi Kejuruteraan Malaysia (EAC) itu turut berkata, Malaysia sebenarnya mampu mengeluarkan lebih ra-

mai teknologis kejuruteraan me mandangkan negara ketika ini sedang mendepani Revolusi Indus tri 4.0 (RI 4.0).

"Hampir 10,000 jurutera diha silkan setahun, tetapi disebabkar bilangan teknologis kejuruteraar lebih kecil mengakibatkan rama graduan kejuruteraan ini menjalankan kerja yang sepatutnya di lakukan teknologis.

"Graduan ini melakukan kerja lebih kepada operasi dan penye lenggaraan meskipun pada dasar nya 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 bagi kedua-dua profesion ini.

Engineers' salaries stagnant for 20 years

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

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

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

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.

Jarum Junior added that mampuan bakat tempatan, sekali she blocked the individu dan graduan kejuruteraan tidak unt, the individual keeps (menerima pengiktirafan dan gaji new account to continue

won't hesitate to take les luar, khususnya dari negara nagainst them," said Rita, tan called her fans to teach an Lembaga Jurufera Malaysia (LJM) mendapati lebih 5,000 syaal using the Instagram Irikat kejuruteraen ketika ini timacdier_07 a lesson by tak main terbabit dalam progscreenshots of the mes masuk bldang penyelidikan.

chidmatan kejuruteraan di negara ini tidak mempercayai kegus menyebabkan ramai jurutera

Situasi itu menyebabkan pem bangunan kejuruteraan negara berada dalam tekanan kerana in-"If they keep botheri dustr ketika ini lebih mengge-mari kepakaran dan teknologi m, berbanding tenaga tempa-

Akibainya, sekior perindustri- Malaysia mempunyai ramai ba- lebih memberi peluang kepada an negara tidak membangun kat tempatan dan program penpada tahap yang separutnya, 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 se dia ada atau dari luar negara.

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

Ahli Lembaga LJM. Megat Johari Megat Mohd Noor, berkata

didikan kejuruteraan juga amat setanding dengan negara maju

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

Syarikat tidak percaya bakat jurutera tempatan

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 melakukan 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

"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 ne-

gara 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) men jelaskan, bakat kejuruteraan ne gara sememangnya cemerlang te tapi imej yang ada pada hari ini tidak meletakkan mereka di tahap sepatutnya

"Bakat kejuruteraan kita ber taraf dunia kerana sistem pendidikan kita adalah yang terbaik ditawarkan kepada pelajar malah jika di luar negara, pelbagai pengiktirafan kita terima. Jika jurutera kita ke luar negara, me reka juga diterima baik.

"Tetapi di Malaysia hari in bidang kejuruteraan tidak me ngalami perubahan dalam sistem kerja dan ini boleh dilihat de ngan pembayaran @ JJ kepada jurutera kita yang tidak tinggi,



IT Committee

Develop, maintain and continuously update and improve the IT facilities and systems in BEM.

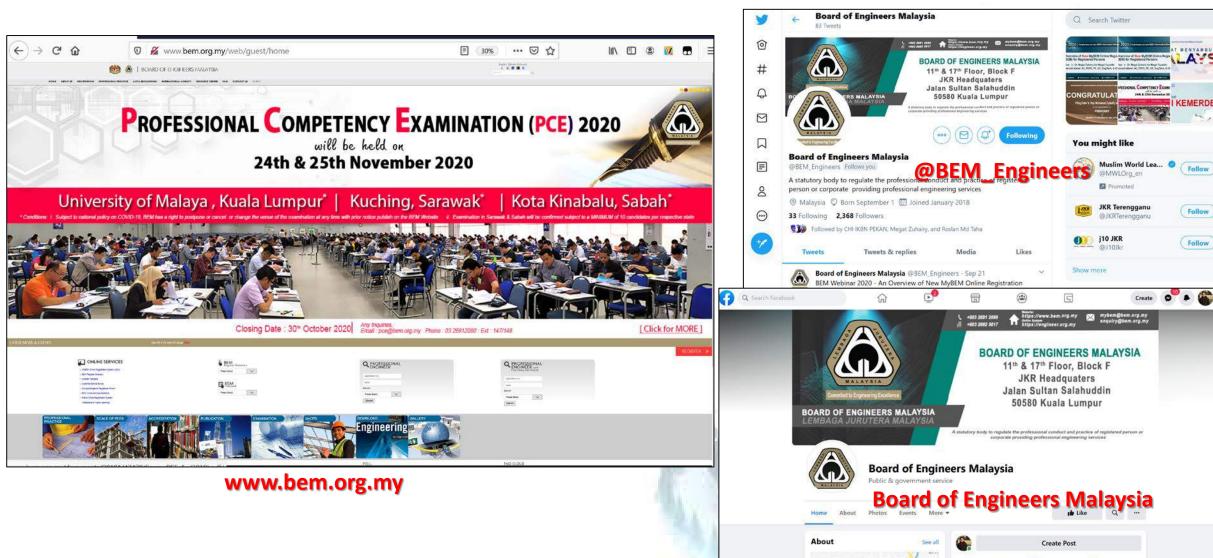
Responsible for monitoring and maintaining IT facilities and system in BEM.

Facilitate collation and receiving of information electronically



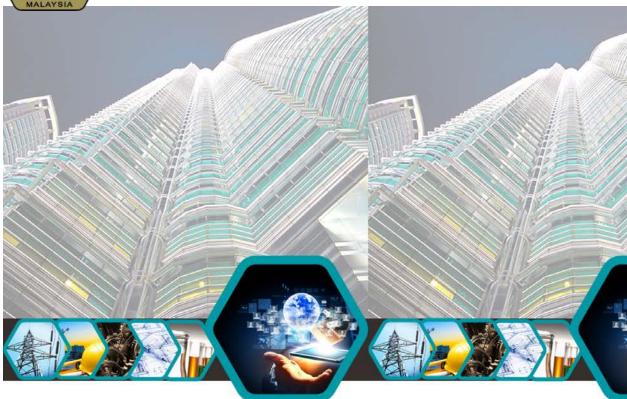


BEM Website & Social Media



Photo/Video

BEM Online Portal







Welcome to MyBEM Online

Login: IC Number (without -)

Password: Password

Remember me

Forget Password ?
Request for Confirmation



























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.





Investigating Committee Case

Investigating Committee Recommendation	No Case (Tiada Kes)	Recommend for Hearing (Dicadangkan untuk Perbicaraan)	Under Investigation (Dalam Siasatan)
2017	9	11	25
2018	9	13	23
2019	14	36	10



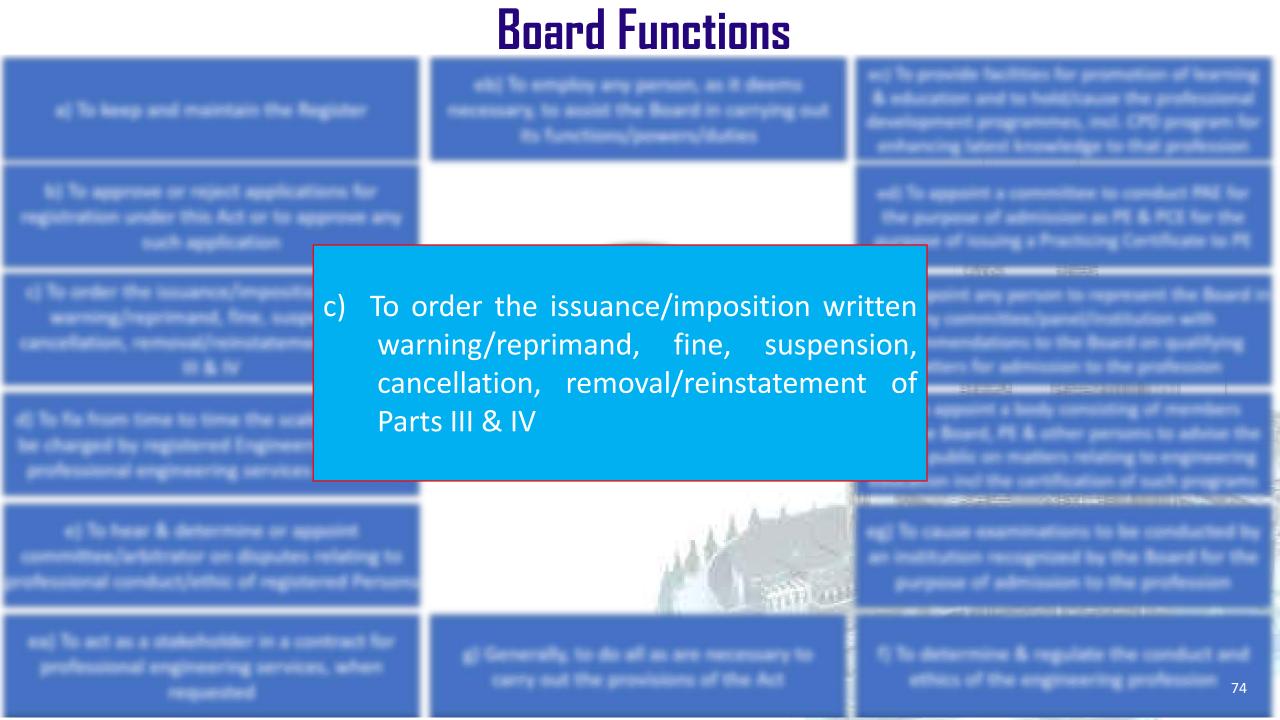
Disciplinary Committee

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







Disciplinary Committee Hearing	Guilty (Bersalah)	Not Guilty (Tidak Bersalah)
2017	6	1
2018	9	-
2019	17	5

DISCIPLINARY COMMITTEE

- The Board shall appoint a Disciplinary Committee which shall consist of the 14A. (1) following members:
 - a Chairman who shall be a registered Professional Engineer with Practising (a) Certificate;
 - a registered Professional Engineer; and
 - a registered Professional Engineer with Practising Certificate. (c)
- The orders referred to in subsection (1) are -(1A)
 - the issuance of a written warning or reprimand; (a)
 - the imposition of a fine not exceeding fifty thousand ringgit; (b)
 - the suspension of registration for a period not exceeding two years; (c)
 - the cancellation of registration.

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)
2.	Sik Chok Yuen	Section 7(1)(aa)(iii) &	9.6.2006	upheld Board's Decision i. Cancellation of GE
75 N	(GE No. 890A)	Section 8(1)	33.13.13.33.33.33	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



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



Statistic & Requirement

Appeal Board Hearing	Upheld (Dikekalkan)	Ditolak (Reject)
2017	1	-
2018	1	-
2019	-	-

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.





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



Understanding The Different Roles

Board of Engineers Malaysia (BEM)

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

Institution of Engineers Malaysia (IEM)

A **professional & learned body** registered under the <u>Registrar of Society</u> 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 <u>statutory body</u> constituted under the <u>Technologist and Technicians Act 2015</u>. Its primary role is to <u>recognise</u> 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 Report 2018
- BEM Annual Report 2017





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