## CANDIDATES APPROVED TO SIT FOR YEAR 2009 PROFESSIONAL INTERVIEW

The following candidates have been approved to sit for the Professional Interview for 2009.

In accordance with Bylaws 3.7, the undermentioned names are published as having applied for membership of the Institution, subject to passing the year 2009 Professional Interview.

If any Corporate Member of the Institution has any reason as to why any of the candidates is not a fit and proper person for election, he should communicate in writing to the Hon. Secretary. Such communication should be lodged a month from the date of publication.

#### Engr. Assoc. Prof. Dr Jeffrey Chiang Choong Luin, MIEM, P.Eng.

Honorary Secretary, The Institution of Engineers, Malaysia

NEW	APPLICANTS	NEW APPLICANTS			
Name	Qualifications	Name	Qualifications		
СНЕМІС		ZAHRI BIN HAJI KARIM	BE (HONS) (UNIMAS) (CIVIL, 02)		
TAY BOON LI	BE (HONS) (UPM) (CHEMICAL, 99)	ELECTRICAL ENGINEERING			
CIVII	ENGINEERING	AZROL BIN NOODIN @ MOHD. NOORDIN	BE (HONS) (UiTM) (ELECT, 01)		
ATIKAH BINTI ABDUL HAMID	BE (MIDDLESEX POLYTECH) (CIVIL, 87)	SYARIZAN BIN ISHAK	BE (HONS) (UNITEN) (ELECT POWER, 04)		
GUNASEGARAN MARUTHAI	BE (HONS) (UM) (CIVIL, 98)	ZAINALABIDIN BIN ABDUL HAMID	BE (HONS) (UNI OF GLASGOW) (ELECT, 88)		
JUNADI APANDI BIN JEMAIN	BE (HONS) (USM) (CIVIL, 99)	MECHANICAL ENGINEERING			
KHAIRUL AMRAN BIN MD. RASHID	BE (HONS) (UiTM) (CIVIL, 02)				
MOHAMAD NOR BIN OMAR	BE (GLASGOW) (CIVIL, 81)	HUANG KIONG HUAT, ANTHONY	BE (HONS) (MMU) (MECH, 04)		
MOHD. NAPI BIN MUDA	BE (HONS) (UTM) (CIVIL, 93)	MOHAMAD MOHARDINATA BIN MOHAMAD ALI	BE (HONS) (SALFORD) (MECH, 96)		
NOORUL AZWAN BIN PALIL	BE (HONS) (UTM) (CIVIL, 03)	MOHAMAD ZAINI BIN BAKAR	BE (HONS) (UITM) (MECH, 99)		
PUDZIL BIN MUHAMMAD DAUD	BE (HONS) (UTM) (CIVIL, 92)	NIK MOHD. HASMIZIE BIN NIK MOHD. KAMIL	BE (HONS) (UTM) (MECH, 02)		
ROSLAN BIN JAAFAR	BE (HONS) (UTM) (CIVIL, 99)	ROSAZLAN BIN ABU SEMAN	BE (HONS) (UITM) (MECH, 01)		
TAN JOON GEI	ME (HONS) (UNI OF LONDON) (CIVIL, 97)	SYAM HAKIMI BIN MD. MOLAWI @ ISMAIL	BE (HONS) (UTP) (MECH, 01)		

TRANSFER APPLICANTS									
Membership No	Name	Qualifications							
	CIVIL ENGINEERING								
22636	CHAN VUI TZE	BE (HONS) (UPM) (CIVIL, 02)							
26393	CHONG CHEE MENG	BE (HONS) (USM) (CIVIL, 04)							
25815	CHONG THER NEN	BE (HONS) (MELBOURNE) (CIVIL, 03)							
25793	KHOO MONG SAN, ROSEMARY	BE (HONS) (MELBOURNE) (CIVIL, 04)							
33966	NG CHIN YIEN	BE (HONS) (UTM) (CIVIL, 01)							
23907	NG CHUNG HOE	BE (HONS) (UPM) (CIVIL, 02)							
18643	NG TECK HIN	BE (HONS) (USM) (CIVIL, 99)							
29160	NORSATRYANI BINTI ZAINI	BE (HONS) (UKM) (CIVIL & STRUCTURAL, 00)							
08729	SABRI BIN ABDUL MULOK	BE (HONS) (UTM) (CIVIL, 86)							
21704	SUZANNA BINTI ABDUL RAHMAN	BE (HONS) (LEEDS) (CIVIL, 99)							
23087	TAN WOOI KIET	BE (QUEENSLAND) (CIVIL, 01)							
29836	TEH AUN KUA	BE (HONS) (UNITEN) (CIVIL, 03)							
	ELECTRICAL AND								
18039	ABDUL AZIZ BIN ABDULLAH	BE (HONS) (LIVERPOOL JOHN MOORES) (ELECT & E'TRONIC, 96)							
34345	BADRUL HISHAM BIN ABDUL KAHAR	BE (HONS) (USM) (E'TRONIC, 96)							
26943	FUNG CHUN TING	BE (HONS) (UTP) (ELECT & E'TRONIC, 05)							
22574	KOK YEN KWAN	BE (HONS) (LIVERPOOL) (ELECT, 02)							
	MECHANI	CAL ENGINEERING							
22614	FARIS TARLOCHAN @ RAMESHJIT SINGH	BSc (PURDUE) (MECH, 98)							
21967	MOHAMMAD NAZRI BIN SULAIMAN	BE (HONS) (UITM) (MECH, 00)							
23220	MOHD. SHAIFULNIZAM BIN ABDULLAH	BE (HONS) (UTM) (MECH, 01)							

## **ADMISSION / ELECTION / TRANSFER**

The IEM Council, at its **365<sup>th</sup>** and meeting on **19 January 2009** approved the admission/election/transfer of a total of **1561** members, consisting of the following:

DISCIPLINES Aeronautical Aerospace Agricultural Automotive Biochemical Biomedical Biotechnology Building Services CAD/CAM Chemical Civil Communication Computer	FELLOW	MEMBER	GRADUATE	INCORPORATED	AFFILIATE			
AerospaceAgriculturalAutomotiveBiochemicalBiomedicalBiotechnologyBuilding ServicesCAD/CAMChemicalCivilCommunication						ASSOCIATE	STUDENT	TOTAL
AerospaceAgriculturalAutomotiveBiochemicalBiomedicalBiotechnologyBuilding ServicesCAD/CAMChemicalCivilCommunication		1						
Agricultural Automotive Biochemical Biomedical Biotechnology Building Services CAD/CAM Chemical Civil Communication			1					1
AutomotiveBiochemicalBiomedicalBiotechnologyBuilding ServicesCAD/CAMChemicalCivilCommunication			2					3
Biochemical Biomedical Biotechnology Building Services CAD/CAM Chemical Civil Communication			_					-
Biomedical Biotechnology Building Services CAD/CAM Chemical Civil Communication								
Biotechnology Building Services CAD/CAM Chemical Civil Communication							10	10
Building Services CAD/CAM Chemical Civil Communication								
CAD/CAM Chemical Civil Communication		2						
Chemical Civil Communication		92					1	1
Civil Communication		02	18				271	291
Communication	1		117				219	429
							215	423
Computer								
Computer Systems			1					1
Computer Systems Computer and Communication			I				1	1
		33					1	1
Control System								
Electrical and Electronic		5	24			4	40	440
Electrical			31			1	48	113
Electronic			19				156	180
Electromechanical								
Energy								
Environmental		1	2					2
Food & Process			1					1
Geotechnical								1
Highway								
Industrial			2					2
Information System								
Information Technology		1						
Instrumentation		1						
Instrumentation and Control								1
Manufacturing			1				3	5
Manufacturing System								
Marine								
Materials		23	1					1
Metallurgy								
Mechanical			49	1			431	504
Mechatronic			1					1
Microelectronic								
Mineral								
Mineral Resources							2	2
Mining		1	1					1
Naval Architecture								
Petroleum							4	5
Polymer							4	4
Structural			1					1
Telecommunication								
Water Resources								
TOTAL	1	160	248	1		1	1150	1561

#### Engr. Assoc. Prof. Dr Jeffrey Chiang Choong Luin, MIEM, P.Eng.

Honorary Secretary,

The Institution of Engineers, Malaysia

Note: The approved and pass candidates' list from the 365<sup>th</sup> Council meeting will be published in the April/09 issue of JURUTERA Bulletin.



# LATEST UPDATE!

## CONTRIBUTION TO IEM BUILDING FUND

RM540,914.00 from IEM Members RM339,502.00 from Private Organisations

## TOTAL **RM880,416.00** (ANOTHER RM11,770,268.00 IS NEEDED)

IEM wishes to take this opportunity to thank all members who have contributed and would like to appeal for support from members who have not yet contributed

HELP US TO PROVIDE BETTER SERVICES TO YOU AND THE FUTURE GENERATION

### DONATION LIST TO THE NEW IEM BUILDING FUND

12th Announcement

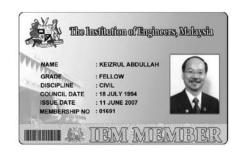
The Institution would like to thanked all contributors for donating towards the new IEM Building Fund. Members and readers who wish to donate can do so by downloading the form from IEM website at http://iem.org.my or contact the IEM Secretariat at 603-79684001/79684002 for more information. The list of the contributors as of 31 January 2009 are:-

NO.	MEMBERSHIP NO.	DETAILS	NO.	MEMBERSHIP NO.	DETAILS	NO.	MEMBERSHIP NO.	DETAILS
1	M10076	ABDUL RAHMAN BIN MOHAMED	13	-	IEM - CIVIL AND STRUCTURAL	24	G29143	QUIRINE @ QUIRINUS JOKINOL
2	M03394	AHMAD HUSAINI BIN SULAIMAN			ENGINEERING TECHNICAL DIVISION	25	M17417	RAJAKUMAR S/O A.GOPAL
3	M03053	AWANGKU HIDUP BIN AWANGKU HOSAIN	14	M36856	ISMAIL BIN LAM DIN	26	M26748	ROTHWAZAR BIN MOHAMED
4	F08161	CHAN KENG HUA	15	M04292	LAM YOOK LON			HASBULLAH
5	M06062	CHEAH CHOON NAM	16	M06310	LEE KOK HONG	27	F06923	SAMSUDDIN BIN ISMAIL
6	M03728	CHIN WEI CHOONG	17	M14866	LOKE CHEE KEEN	28	M19096	SHYAM LAKSHMANAN
7	G23249	CHOY YING OON	18	F01974	MOHAMED ALI BIN YUSOF	29	M08594	TAN YUN WU
8	G36872	FAIZUL HAIZAL BIN HAMIDUN	19	M19609	MOHAMMAD ASHARI BIN MUDA	30	G24400	TEOH YIT HOE
9	M05556	FOO SIN YEW	20	F02875	MOHD ISA BIN SARMAN	31	M14417	TU CHUAN FUK
10	M00945	GOH GIN HAN	21	G15156	MOHD ZAIN BIN SARMAN	32	M10211	VINCENT CLEMENT THAMBYRAJAH
11	M15325	HAN SUNG TING	22	M13107	MUSTAFA BIN BERAHIM	33	M06175	YAM SENG LAM
12	S26307	IBRAHIM BIN SALEH	23	G16532	NORDIN BIN MAASUM	34	M30804	ZAINUDDIN BIN MOHAMED

#### ERRATA (Published February 09)

The name Eh Yih Bing was spelled incorrectly in February 09 issue of Jurutera Bulletin. The name should be read as "Eeh Yih Bing". We appologise for the inconvenience caused.

## **IEM NEW MEMBERSHIP CARD**



Effective from 1 January 2008, IEM has introduced a new IEM membership card for all Members. The new card had been designed to include bar code features as provision for future expansion. It is hoped that this new card would assist IEM to provide better and more efficient service to our Members.

Members who have not renew the card can submit a "scanned" passport sized photograph (softcopy) in JPEG format and e-mail to iemphoto@gmail.com. Kindly indicate your name, membership number and grade upon submission.

You may also contact the IEM Secretariat at 603-79684001/2 for an appointment for your photos to be taken.

Thank you for your co-operation.

#### RECOGNITION/BENEFITS LIST FOR DONATIONS OR LOAN TO IEM BUILDING FUND

1. LOAN

Members may give out loans to IEM in the following denominations:

- (i)
   RM1,000 RM2,000
   Talk voucher worth RM100. Discount vouchers worth RM50. Valid for five (5) years.

   (ii)
   RM2,001 RM5,000
   Talk voucher worth RM200. Discount vouchers worth RM100. Volid for five (5) years.

   (iii)
   Above RM5,000
   Talk voucher worth RM200. Discount vouchers worth RM100. Volid for five (5) years.
  - Talk voucher worth RM200. Discount vouchers worth RM100. Valid for five (5) years
- Talk voucher worth RM200. Discount vouchers worth RM200 to attend IEM courses/seminars.

From year 6 onwards, IEM can begin to repay members' loan and withdraw the privileges accorded but maintain the recognition awarded.

#### 2. DONATIONS FROM MEMBERS

Dona	tion Amount	Recognition
(i)	RM1,000 - RM2,000	Talk voucher worth RM100. Discount vouchers worth RM50. Valid for five (5) years. 12pt sized. Engraving on the Donation Board.
(ii)	RM2,001 – RM5,000	Talk voucher worth RM100 and Discount vouchers worth RM100 to attend IEM courses seminars. Valid for five (5) years. 14pt sized Engraving on the Donation Board.
(iii)	RM5,001 – RM10,000	Talk voucher worth RM200 and Discount vouchers worth RM200 to attend IEM courses/seminars. Valid for five (5) years. 16pt sized Engraving on the Donation Board. Naming of one Division of Secretariat office.
(iv)	RM10,001 – RM20,000	Talk voucher worth RM200 and Discount vouchers worth RM200 to attend IEM courses/seminars. Valid for five (5) years. 18pt sized Engraving on the Donation Board. Naming of small Meeting room.
(v)	RM20,001 – RM50,000	Talk voucher worth RM200 and Discount vouchers worth RM200 to attend IEM courses/seminars. Valid for five (5) years. 18pt sized Engraving on the Donation Board. Naming of medium sized Meeting room.
(vi)	RM50,001 – RM100,000	Talk voucher worth RM200 and Discount vouchers worth RM200 to attend IEM courses/seminars. Valid for five (5) years. 18pt sized Engraving on the Donation Board. Naming of large sized Meeting room.
(vii)	RM100,001 – RM150,000	Talk voucher worth RM200 and Discount vouchers worth RM200 to attend IEM courses/seminars. Valid for five (5) years. 18pt sized Engraving on the Donation Board. Naming of Resource Centre/Library.
(viii)	RM150,001 – RM200,000	Talk voucher worth RM200 and Discount vouchers worth RM200 to attend IEM courses/seminars. Valid for five (5) years. 18pt sized Engraving on the Donation Board. Naming of Conference Room.
(ix)	RM200,001 - RM300,000	Talk voucher worth RM200 and Discount vouchers worth RM200 to attend IEM courses/seminars. Valid for five (5) years. 18pt sized Engraving on the Donation Board. Naming of Auditorium 1.
(x)	RM300,001 - RM500,000	Talk voucher worth RM200 and Discount vouchers worth RM200 to attend IEM courses/seminars. Valid for five (5) years. 18pt sized Engraving on the Donation Board. Naming of Auditorium 2.

(IEM is currently looking into applying for Tax Exemption status for the IEM Building Fund)



### DONATION/LOAN REPLY FORM

Chairman IEM Fund Raising Committee (Building Fund) The Institution of Engineers, Malaysia, P.O. Box 223, (Jalan Sultan), 46720 Petaling Jaya, Selangor Darul Ehsan	Date://2008
Dear Sir,	
IEM BUILDING FUND	
LOAN     DONATION       (Please indicate ✓ where applicable)	
Enclosed herewith a Cheque/Bank Draft/Money Order/Postal Order* No for RM for the abovementioned made payable to <b>'IEM Building Fund'</b> Account.	
Please charge to my credit card the amount of RM for the abovementioned.	м м у у
Card: Visa MasterCard Expiry Date:	
Card Number:	
Name:	
Address:	
Contact No.:	
Email:	Signature



## IEM DIARY OF EVENTS

For further enquiries on the events below, please visit IEM Homepage at http://www.iem.org.my or contact IEM Secretariat for further information and registration forms.

#### Electrical Engineering Technical Division 31 MARCH 2009

Time: 5.00 p.m. – 7.00 p.m. An Evening Talk on "Small Signal Instability in Power Systems" *Venue: 2nd Floor, Conference Hall, IEM* Speaker: Prof. Ooi Boon Teck (*Invitation to register*)

11 APRIL 2009 Time: 9.00 a.m. - 1.00 p.m. Talk on "TV White Spaces Spectrum due to Transmission from Analogue to Digital TV (DTV) " *Venue: 2nd Floor, ISM Conference Hall, IEM* Speaker: Dr Rashid bin A. Saeed *(Invitation to register)* 

#### Standing Committee on Welfare and Service Matters

21 MARCH 2009 Time: 9.00 a.m. – 1.00 p.m. Talk on 'HEART DISEASES' *Venue: 2nd Floor, Conference Hall, IEM*  Speaker: Engr. Y. Bhg. Dato' Dr Balachandran a/l Kandasamy (Invitation to register)

#### MAJOR EVENTS 2009

23-25 MARCH 2009 International Conference on Engineering and Education in the 21st Century (ICEE 2009) Venue: Crowne Plaza Riverside, Kuching, Sarawak Organiser: IEM Sarawak Branch Fees: (a) RM850 (b) RM850 (International/Local Students) (c) RM550 (Accompanying Spouse programme) (Invitation to register)

18 APRIL 2009 50<sup>th</sup> IEM AGM Venue: Wisma IEM Time: 8.00 a.m. - 1.00 p.m.

IEM 50<sup>th</sup> Anniversary Dinner Venue: Imperial Ballroom, One World Hotel, Bandar Utama, P.J. Time: 7.30 p.m. - 10.30 p.m.

#### 30 NOVEMBER - 2 DECEMBER 2009 27TH CAFEO: ENGINEERING FOR SUSTAINABLE ENVIRONMENT (Call for papers) Venue: Suntec City Convention Centre, Singapore Tel: 603 7968 4001/2 Fax: 603 7957 7678 Fees: USD100.00 E-mail: sec@iem.org.my (Invitation to reaister)

1 - 3 MARCH 2011 INTERNATIONAL CONFERENCE AND EXHIBITION ON TUNELLING AND TRENCHLESS TECHNOLOGY Venue: Sheraton Subang Hotel & Towers Tel: 603 7968 4001/2 Fax: 603 7957 7678 E-mail: Tunnel2011@iem.org.my Website: http://www.iem.org.my (Call for papers)

## CONFERENCES & SEMINARS

#### MALAYSIA

28-29 APRIL 2009 INTERNATIONAL SEMINAR ON ADVANCES IN RENEWABLE ENERGY TECHNOLOGY (ISARET 2009) Venue: Residence Hotel@UNITEN Tel: 603 8921 2020 Fax: 603 8921 2116 E-mail: cre@uniten.edu.my Website: www.uniten.edu.my (Invitation to register)

#### 1-3 JUNE 2009

RAMM AND ASMP 2009 Venue: Bayview Beach Resort, Batu Ferringhi, Penang Tel: 604 599 6180/6178/6106, 5941010 (Main office) Fax: 604 594 1011 (USM) Email: ramm09@eng.usm.my Website: http://material.eng.usm.my/ramm\_asmp\_09 (Invitation to register) 29 JUNE - 1 JULY 2009 INTERNATIONAL NUCLEAR CONFERENCE 2009 AND EXHIBITION Venue: PWTC, KL Tel: 603 8925 0510 Fax: 603 8925 2588 Email: inc09@nuclearmalaysia.gov.my Website: http://online.nuclearmalaysia.gov.my/sems/inc09 (Invitation to register)

#### 19-20 DECEMBER 2009

7TH INTERNATIONAL CONFERENCE ON ROBOTICS, VISION, SIGNAL PROCESSING AND POWER APPLICA-TIONS (RoVISP'09) Venue: Langkawi, Kedah Tel: 604 5996011/61 Fax: 604 59941023 E-mail: rovisp09@rovisp.org. Website: www.rovisp.org (Call for Papers and Invitation to Register)

#### PORTUGAL

14-17 APRIL 2009  $S^{TH}$  EUROPEAN CONFERENCE ECONOMICS AND MANAGEMENT OF ENERGY IN INDUSTRY Venue: Hotel D. Pedro Golf Resort Tei: 351-22 973 46 24/22 973 07 47 Fax: 351-22 973 07 46

E-mail: cenertec@cenertec.pt Website: www.cenertec.pt/ecemei (Invitation to register)

#### USA

4-6 JUNE 2009 SUPERPILE '09 Venue: San Francisco, CA, USA Tel: 973 423 4030 Fax: 973 423 4031 E-mail: bhusbands@dfi.org Website: www.dfi.org (Invitation to register)

#### KOREA

21-23 OCTOBER 2009 2009 KSCE ANNUAL CONFERENCE & CIVIL EXPOSITION Venue: Hyundai Sungwoo Resort Tel: +82-2-3400-4506 Fax: +82-2-443-2112 E-mail: song@ksce.or.kr Website: www.ksce.or.kr (Invitation to register)

#### IEM CLOSED ON 4 APRIL 2009

The IEM Secretariat office will be closed on 4 April 2009 (Saturday) for the counting of votes for the IEM election. Any inconvenience caused is regretted.

#### Condolences

We wish to announce the demise of the following members. On behalf of the IEM Council and Management, we wish to convey our deepest condolences to the bereaved families.

- (i) Engr. Ewe Kean Hoe (M03573) on 14 February 2008
- (ii) Engr. Lee Sing Chooi (G06581) on 9 December 2008
- (iii) Engr. Dato' Hj. Abu Bakar bin Mohd. Amin (F01682) on 5 January 2009
- (iv) Engr. Azmi bin Hj. Mohd. Yusoff (M10402) on 1 February 2009

Thank you.

### Errata

It came to our notice that in one of the article (page 13, January issue) Bentang Chamang Waterfall has mispelled as Chamag. The error is regretted.

### ACPE APPLICATIONS FOR AER MEMBERS

All AER members are invited to send in applications to IEM to register as ACPE. The benefit as an ACPE Malaysia are that all applicants shall, subject to domestic laws and regulations and where applicable, not making submissions to statutory authorities of the Host Country, be permitted to work as a Registered Foreign Professional Engineer (RFPE), not in independent practice, but in collaboration with designated Professional Engineers in the Host Country, within such area of his own competency as may be recognised and approved by the Professional Regulatory Authority (PRA) of the Host Country.

The first batch of 43 ASEAN Chartered Professional Engineer (ACPE) from IEM AER Members' applications that have been approved are listed below.

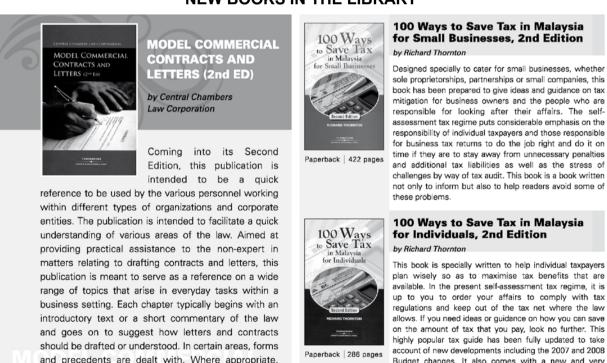
You may download the application form from the AER website at http://aer.afeo.org/.

NO	AER NO.	NAME	NO.	AER NO.	NAME	NO.	AER NO.	NAME
1	2303	Abdul Jamil Bin Mohd Hassan	16	2275	Liew Yoke Loy	31	262	Ros Shamsiah Bte Muda
2	2185	Abdul Rashid Bin Maidin	17	2259	Lim Eng Hwa	32	150	Rosaline Ganendra
3	2285	Ahmad Damiri Bin Hj. Md Noor	18	2297	Lim Chee Kiang	33	2264	Sazali Bin P. Abdul Karim
4	2301	Azharudin Bin Mukhtaruddin	19	2007	Lim Hok Lian, Eddie	34	2186	Seo Kian Haw
5	2055	Balakrishnan S/O Etty Gaunder	20	263	Lim Khoon Chuan	35	170	Shahruny Bin Mohd Akil
6	68	Cheong Chee Kwong	21	2239	Lim Meng Sen	36	2015	Sim Chin Leong
7	198	Cheong Mang Si	22	104	Lim Ming Wai	37	2244	Tan Yean Chin
8	60	Cheong Vai Yan	23	2306	Loi Yew Hua	38	293	Teong Choo Cheing
9	33	Chuah Hean Teik	24	145	Mohamed Ali Bin Yusoff	39	41	Wong Hon Thang, Rocky
10	280	Chong Kok Yuen, Eugene	25	2182	Mohd. Nor Bin Abd. Basar	40	2305	Wong Keng Mun
11	28	Choo Kok Beng	26	2289	Ng Kok Keong	41	2287	Wong Tack Chow
12	261	Dennis Ganendra	27	2269	Ng Peng Yuen	42	2256	Yim Hon Wa
13	2237	Faridon bin Talib	28	2155	Oh Kok King	43	2300	Zulkufly Bin Daud
14	166	Gue See Sew	29	2291	Ooi Teik Aun			
15	2296	Jerry Khoo Keat Huat	30	2153	Ow Chee Sheng			

### Change of Technical Division Name

Effective from 9 August 2008, the Production and Manufacturing Engineering Technical Division of IEM would be changed to 'Manufacturing Engineering Technical Division'. This was proposed and agreed by all at the 17th Annual General Meeting of the Production and Manufacturing Engineering Technical Division.

Thank you.



For more information on the above books, please contact IEM library. IEM Library is open from 9.00 a.m. to 6.00 p.m. (Mon - Fri) and 9.00 a.m. to 4.00 p.m. (Every Saturday)

### NEW BOOKS IN THE LIBRARY

and precedents are dealt with. Where appropriate, suggested checklists are also provided.

Hardcover 549 pages

plan wisely so as to maximise tax benefits that are available. In the present self-assessment tax regime, it is up to you to order your affairs to comply with tax regulations and keep out of the tax net where the law allows. If you need ideas or guidance on how you can save on the amount of tax that you pay, look no further. This highly popular tax guide has been fully updated to take account of new developments including the 2007 and 2008 Budget changes. It also comes with a new and very informative chapter packed with useful ideas for people involved with estates, trusts and settlements. If you are a beneficiary, a trustee or a guardian, see how you can maximise the inheritance which you have received or are looking after



## IEM REGIONAL BRANCHES

#### PENANG BRANCH

Level 5-5A, Northam Venture 37, Jalan Sultan Ahmad Shah, 10050 Penang Tel: 04-818 2045/818 2046 Fax: 04-226 4490 E-mail: iempenangbranch@gmail.com Chairman: Engr. Lim Kok Keong Secretariat: Miss Susan / Miss Ng

#### SOUTHERN BRANCH

24-B, Jalan Abiad, Taman Tebrau Jaya 80400 Johor Bahru, Johor Tel: 07-331 9705 Fax: 07-331 9710 E-mail: iemsouthern@gmail.com Website: www.iemsb.org.my Chairman: Engr. Sim Tian Liang Secretariat: Pn. Lina

#### PERAK BRANCH

No. 8 – 10, Jalan Tokong 31650 Ipoh, Perak Tel: 05-254 5962 Fax: 05-253 4362 E-mail: meiyu@streamyx.com Chairman: Engr. Angus Ang Mei Yu Secretariat: Mrs. Looi

#### **KEDAH-PERLIS BRANCH**

170-B, Tingkat 1, Kompleks Alor Star Lebuhraya Darul Aman 05100 Alor Star, Kedah Tel: 04-734 3420 Fax: 04-733 3962 E-mail: ijmckp@yahoo.com Chairman: Engr. Hj. Abdullah Bin Othman Secretariat: Pn. Salmah Ismail

#### NEGERI SEMBILAN BRANCH

C/O Prodesign Engineers Sdn Bhd No. 28-1, Jalan Durian Emas 4 Betaria Business Centre Off Jalan Dato' Siamang Gagap 70100 Seremban, Negeri Sembilan Tel: 06-767 7333 Fax: 06-767 7000 E-mail: prodesignsb@gmail.com Chairman: Engr. Hj. Mohamad Nor Bin Mohd Dros Secretariat: Cik Zila

#### EASTERN BRANCH

C/O KMS Ingenieur Sdn Bhd Unit 1-11 & 1-12, Wisma Ingenieur Jalan Raja Perempuan Zainab II 16150 Kubang Kerian, Kota Bahru, Kelantan Tel: 09-764 3791 Fax: 09-765 1058 E-mail: ayahmin@gmail.com / kmsingenieur@gmail.com Chairman: Engr. Nik Mohd Amin Bin Nik Taib Secretariat: Pn. Nurul Asma

#### **TERENGGANU BRANCH**

C/O The Chief Executive Officer Syarikat Air Terengganu Berhad (SATU) Jalan Sultan Ismail 20200 Kuala Terengganu, Terengganu Tel: 09-620 1103 Fax: 09-620 1104 E-mail: juliana@satuwater.com.my Chairman: Y. Bhg. Dato' Engr. Hj. Wan Ngah Wan Ali Secretariat: Ms. Juliana Najib Chua

#### MELAKA BRANCH

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#### SABAH BRANCH

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#### **MIRI BRANCH**

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#### THE INSTITUTION OF ENGINEERS, MALAYSIA

Bangunan Ingenieur, Lots 60&62, Jalan 52/4, P.O. Box 223, (Jalan Sultan) 46720 Petaling Jaya, Selangor. Tel: 603 7968 4001/4002 Fax: 603 7957 7678 Email: sec@iem.org.my Website: http://www.iem.org.my

### **CALL FOR NOMINATIONS**

### THE MALAYSIAN WATER ASSOCIATION – MALAYSIA WATER AWARDS FOR MANAGEMENT AND RESEARCH 2009

The awards are presented annually for the outstanding contributions to Malaysian individuals or institutions in the field of water and wastewater engineering either in Research and Management.

Awarded by the Malaysian Water Association, the Malaysia Water Awards honour achievements in science, engineering, technology, education or public policy that have resulted in significant impact in advancing the science and practice of water and wastewater engineering at national and international level. These contributions involve achievements in management and innovations, design, and engineering solutions which have immediate application to the industry as a whole.

The Malaysia Water Awards comes with a prize of a Challenge Crystal Trophy, a commemorative Plaque and RM 5,000.00.

Further details can be referred at The Malaysian Water Association (MWA) at 603-62019521 / 2250 or fax to 603-62015801 or email to tmwa@streamyx.com or can be download more information on the said awards at www.mwa.my.

The closing date is **31 March 2009** 

Thank you.

### NEWS FROM WELFARE AND SERVICE MATTERS

### IEM ENGINEERING WEEK 20-25 APRIL 2009 (EW09)

This year IEM will celebrate its 50th Anniversary. The Institution of Engineers, Malaysia (IEM) is pleased to announce the IEM Engineering Week 2009 (EW09) will be commencing from 20 – 25 April 2009.

This will be the thirteenth (13th) consecutive year that IEM is organising the Engineering Week with the most apt theme of "Prime Movers of Nation Building".

It represents our continuous effort to enhance the image of the engineering profession amongst the community.

A one-week programme has been arranged to promote engineering aggressively and covering all aspects; the challenges, professionalism, the exciting working environment and the wide career options available to engineers. Society must be made to understand and appreciate the versatility of the engineering profession in providing them with a high standard of living. The target groups for these strategies should be the Organisations, IEM members, Universities and Schools.

Kindly refer to the circular in the Bulletin and announcement in our Website for details or contact IEM Secretariat at 03-7968 4019 for further information.

Thank you.

The Standing Committee on Welfare and Service Matters Session 2008/2009

## Job Vacancy Advertisement at IEM's Website and Notice Board

Please be informed that IEM provides job vacancy advertisement through the IEM Website and Notice Board to its members and non-members who are looking for engineers on a full time/contract or on part-time basis to fill job vacancies in their respective companies. The 'Job Vacancy Advertisement Form' and 'Its Terms and Conditions' are available at the IEM website, *www.iem.org.my* or you may contact En. Ahmad Tarmizi, the IEM Secretariat at 03-7968 4019 for more details.

Job seekers can search for their desired employment in the IEM Website under 'Job Gallery' section for the latest job vacancy advertisements.

Thank you and best regards,

Chairman Standing Committee on Welfare and Service Matters The Institution of Engineers, Malaysia

#### **CONDITIONS OF APPLICATION**

The IEM provide this service to its members who are looking for engineers on a full time/contract or on part-time basis to fill job vacancy in their respective companies.

Please be informed that IEM will charge its members and non-members a nominal fee for job vacancy advertisement through IEM website and notice board.

Condition of application as stated below;

- Applicant to provide details and specified job to be advertised by including i.e. brief company's profile, introduction, job requirements and contact person of the company;
- Charges for IEM members will be at RM50.00 per job title and non-members at RM100.00 per job title. A maximum of not more than three (3) job titles per application;
- 3) Kindly send through e-mail to mizi@iem.org.my or sec@iem.org.my and attached together the softcopy of the job vacancy advertisement;
- 4) Publicity is only for a month in the 'JOB GALLERY' of IEM website and notice board;
- 5) The advertisement is only for engineering related job;
- 6) Once the advertisement has been published and posted on IEM website and notice board respectively, job seekers should contact the company which offers the position directly. IEM will not be held responsible for any shortcoming in the vacancy announced;
- 7) Payment MUST be made in advance, after receipt of payment the job vacancy advertisement will only be posted on IEM website/notice board/etc.
- 8) IEM webmaster will not entertain any enquiry related to the job vacancy on the website. Webmaster job will finish once the desired advertisement has been established and after the duration of one (1) month, the webmaster will automatically remove the said advertisement from the 'JOB GALLERY';
- 9) IEM does not guarantee success in finding the correct candidate. IEM website is only an alternative mode of announcing the vacancy;
- 10) IEM is not liable for any information stated in the advertisement made by the employer/employee in IEM website/notice board/etc;



## The Institution of Engineers, Malaysia

## JOB VACANCY ADVERTISEMENT FORM

To: Chairman Standing Committee on Welfa The Institution of Engineers, N Bangunan Ingenieur, Lots 60/6 P.O. Box 223 (Jalan Sultan), 46	/lalaysia		
(Kindly '✔' where necessary)			
APPLICATION			
For Job Vacancy to be advertis	ed in IEM Website and Notice Board;	Duration :	Weeks;
RM50.00 / Job Title for	IEM Members – PE only.	From (date) :	
RM100.00 / Job Title fo	r Non Members.	To (date) :	
No. of Job Vacancy to be adve	rtised		
APPLICANT'S DETAILS			
Applicant's Name :	(Dercond)	/ Company)	
Membership No. :			
Contact Details : (T)	(F)	E-Mail :	
PAYMENT			
RM		tion of Engineers, Malay	for the amount of ysia' account and crossed 'A/C Payee only'. tepted by the Committee.
Note: Payment MUST be mad Note: Kindly attach the Softco	e before advertisement. by of the Job Vacancy for IEM record purpos	e and further action.	
Declaration,			
l, complied with IEM conditions fo		lame) hereby certify that t	he above information/ documents are true and
Signature	-		Date
	FOR OFFICE	USE ONLY	
Application Date			
Payment Date to Finance	:		
Date Submitted to Webmaster			Authorised Signatory:
Date upload to IEM Website	:		
Date remove from IEM Website	:		



## IEM TRAINING CENTRE SDN BHD (127273-K)

(Wholly owned subsidiary of The Institution of Engineers, Malaysia)

No 33-1A (1st Floor), Jalan 52/18, P.O. Box 224 (Jalan Sultan P.O.), 46720 Petaling Jaya, Selangor Darul Ehsan Tel: 603 7958 6851 Fax: 603 7958 2851 Email: iemtcsb@gmail.com

Dear Members,

### IEM Motor Insurance Business – continuous source of income to IEM

The Institution of Engineers, Malaysia (IEM) is now a Corporate Insurance Agent and IEM Training Centre Sdn. Bhd., a wholly owned subsidiary and business arm of IEM, has been given the task to promote the IEM Motor Insurance products to members and their family members and friends <u>anywhere in the country</u>. The income generated from the motor insurance business would be used to offset the bank loan taken to purchase the new IEM Building and to upgrade the facilities in IEM to serve our members better.

Note: Motor insurance acceptance is now carried out electronically via E-Cover Note hence it is now possible to undertake this business.

The confidence and satisfaction of members to place their insurances with IEM are our primarily concern and the following supporting services have been established:-

- Dedicated phone line at 603-79564015.
- Dedicated fax line at 603-79582851.
- Dedicated email address at insurance@iem.org.com.my
- Dedicated SMS number at 019-2563931
- Dedicated staff, Insurance Officer with a backup to handle all enquiries including claims ONLY during office hours *i.e.* 9.00 a.m. till 5.00 p.m. from Monday to Friday.
- Dedicated office at IEM Training Centre Sdn. Bhd.
- Not more than 2 working days to submit quotation to all enquires.
- If member accepts the quotation, to hold cover within the same working day.
- Not more than 3 working days to approve or decline referred cases.
- Policy to be delivered to your correspondence address within 10 working days.

The insurer will provided IEM members the following benefits:

- 24 hours emergency towing and minor roadside repair and towing service, free of charge up to maximum RM300.00 anywhere in Malaysia. You don't have to worry looking for a mechanic!
- Assist to arrange hotel accommodation, car rental if required.

In the event of a claim, IEM Training Centre Sdn. Bhd. will request the insurer:

- to approve the repair work within 3 working days.
- for total loss, approve payment within 10 working days.
- for theft cases, approve payment within 3 months.

Please note that service for renewal of road tax service will not be provided because of the liability involves if the Motor Registration Card is lost during transit. Members are advised not to utilize unreliable source as the procedures to obtain a new Registration Card is tedious and time consuming dealing with relevant authorities.

We wish to appeal to members to support the IEM Motor Insurance. Should you have any enquiry, please do not hesitate to contact IEM Training Centre Sdn. Bhd., address, telephone, fax numbers and email address as above.

Thank you.

Engr. Yim Hon Wa Chairman, Executive Committee IEM Training Centre Sdn. Bhd.

## Personal Experience and Observations of the Development of Engineering Education and Professional Practice in Malaysia for the Past 50 Years (Part 3)

by Engr. TT Chiam, FIEM, P. Eng.

This is the conclusion of a three-parts article. The second part was published in February 2009 Bulletin, pages 18 to 28

Preamble: This is a record of my personal experience and observations of the development of engineering education and professional practice in Malaysia for the past 50 years. The aim is to record our country's development in engineering education and professional development and it is not to be a critical analysis of the development per se.

Please do not take the observations/remarks given herein personally nor as criticism of the development of engineering education and/ or professional practice in Malaysia. This is only a record of my personal observations/ remarks and my sincere apology in advance to all those who may be offended by my observations/remarks.

#### 9.0 ROLE OF BEM VIS-À-VIS IEM

IEM is a private professional body set up by its members to advance the knowledge based information and development of the engineering profession while BEM is the statutory body set up by the Government to regulate the professional practice in the country. BEM's role is not to favour any particular groups in the practice of engineering, but to protect the public in the safe practice of engineering. It must be seen that every professional engineer registered with the BEM is equal in the eye of the Registration of Engineers Act.

It is about time that these two distinctive roles of BEM and IEM be clearly defined, although there might be grey areas which need to be trashed out to avoid any further misunderstanding between BEM and IEM. There must not be any desire for one to outdo the other! Each has its rightful role to play in complimenting each other for the benefit of the profession and the public at large.

#### 9.1 WHAT'S IN A NAME?

To quote Shakespeare, 'A rose by any other name ......'

In 1975, the IEM revised its Constitution

and Bylaws completely, and provided in its Constitution that all members of IEM were entitled to call themselves 'Ingenieur' and, in short, to use the title 'Ir'. This concept aimed to create a sense of purpose and belonging to the engineering profession. So all engineers in IEM were called 'Ir', irrespective of whether they were graduates or Corporate Members of IEM.

In Europe, Indonesia, South America and many other countries in the world, all engineers are addressed as 'Ir'. In Germany, however, a special title, 'Prof Ing', was created to differentiate the 'Prof Ing' group from the general engineering practitioners. These are the 'checkers' of engineering designs as required by law.

This concept of a title for engineers was also picked up by a few local professional bodies in the country. The architectural profession adopted 'Ar' to address its members; the quantity surveyors adopted 'Sr'; and the dentists also decided to call themselves 'Dr' in line with the medical profession. Many years ago, they were addressed as 'Mr', the same for surgeons, who even now refuse to be called 'Dr'.

In Singapore, the IES decided to follow suit and initially called their members 'Engr', but then decided to abbreviate further to 'Er' to conform to the generally accepted practice of using two characters such as 'Mr' and 'Ms'.

Unfortunately in Malaysia, the BEM decided to use the 'Ir' title, in late 1989, making it a law that only professional engineers in this country are entitled to use 'Ir'. I was very surprised that nominated IEM members in the Board were not aware of the proposed change by the BEM and did not even bring this matter to the attention of the IEM Council! What is the purpose of having nominated IEM members in the BEM if they are not there to look after the interests of the IEM in particular and the profession in general?

Therefore, non-professional engineers cannot use the 'Ir' title in this country from 1989 onwards! Members of the IEM, particularly the younger members, felt that a new title should be created to identify the engineering profession, as all other professions have their own titles. The Council, in its wisdom, has created the title 'Engr' in 2006 which could be used by all members of the IEM. They have now addressed all members of the IEM as 'Engr', except for professional engineers who have written in to be addressed as 'Ir' in IEM's correspondences.

In Canada, Professional Engineers are allowed to use 'P. Eng.' after their name or 'Ing' before their name.

## 10.0 ENGINEERING ACCREDITATION COUNCIL (EAC)

Since the formation of the IEM, it was the sole professional authority assessing professional engineering qualifications for membership admission to the IEM, and hence for employment in the Government service as engineers. When the BEM was established, it also took on the role of assessing qualifications for registration in accordance with the REA.

The National Accreditation Board (LAN), established in 1989, which has been replaced by the Malaysian Qualification Agency (MQA) which was established in November 2007, was set up to control the proliferation of private institutions of higher learning (IPTS). LAN was set up to monitor and ensure that the course content and staff employed, *etc*, were adequate and sufficient.

Hence, IPTS in engineering have to submit their application to three separate bodies for the evaluation of their courses. This would seem onerous; that their professional courses have to be evaluated twice, once by the IEM and once by the BEM after obtaining permission to start FEATURE

the course from the LAN.

An Ad-hoc Committee was set up by the BEM under my chairmanship in mid 1990s to study the different roles of the BEM and the IEM. The Ad-hoc Committee was drawn from members of the BEM and the IEM, and it held regular meetings to examine the various roles of the BEM and the IEM, and also the aspects of professional practice and course evaluation, etc.

One of the major recommendations of this Ad-hoc Committee was the setting up of the Engineering Accreditation Council (EAC). The EAC was supposed to be an independent body consisting of equal membership from the BEM and the IEM, and one member each from LAN, JPA and the Council of Engineering Deans. The concept of the EAC was supposed to be similar in nature to that of the ABET (American Accreditation Board of Engineering and Technology), which should be independent of all institutions of higher learning.

The initial concept was that the EAC was to receive a launching grant from the BEM, and thereafter be financially independent of the BEM, collecting fees from engineering institutions of higher learning for evaluating their courses. The chairman of the EAC was supposed to be an independent member, appointed from among its members.

Unfortunately, the EAC has now seemed to be another committee of the BEM with all its members being appointed by the Board, including the chairman. The IEM was supposed to be an equal partner in the setting up of the EAC, but has very little say now in the composition of the EAC and its activities.

#### 11.0 THE WASHINGTON ACCORD (WA)

The IEM was approached in late 1980s to be one of the founding signatories to the Washington Accord (WA). But the IEM Council felt that although the concept of giving mutual recognition evaluated by a member signatory was good, it did not, however, want to relinquish its rights of evaluating applications for membership admission to IEM.

In 1989, as I can recall, five professional bodies, namely, ASCE (US), ICE UK, IE Aust, Engineers Canada, and IPEng NZ, were the original five signatories of the WA. Subsequently, IE Ireland (1989), IE Hong Kong (1995), Engg Council of South Africa (1999), Japan Accreditation Board for Engineering Education (2005), IE S'pore (2006), Institute of Engineering Education Taiwan (2007) and Accreditation Board for Engineering Education in Korea (2007) were admitted as signatories. All signatories to the WA are NGOs. The names of the original signatories were subsequently changed to ABET (US), Engineering Council (UK) and Engineers Australia, etc.

There are, at present, 12 signatories to the WA. Five (5) countries, namely, Germany, India, Malaysia, Russia and Sri Lanka are holding provisional status. To be admitted as a signatory to the WA, one must have the full support of all member signatories.

It is a pity that the IEM did not initially accept the invitation from ICE UK to be a signatory of the WA, and now I am told that the EAC's application has been met with some resistance from a member signatory! I do not quite understand why the BEM is so keen to be a signatory to the WA and not let IEM be the signatory. After all, the IEM, which is an NGO, is supposed to be an equal partner in the EAC.

If IEM, being an NGO, is the signatory to the WA, it will protect the interests of the country. It will provide an opportunity for the BEM to be the second line of vetting before allowing foreign engineers to register with the BEM. In fact, the Institution of Civil Engineers UK was the original signatory to the WA and not the Engineering Council UK. WA is supposed to be non-governmental in nature.

#### 11.1 SYDNEY ACCORD AND DUBLIN ACCORD

Besides the WA, which is for accreditation at the professional level, there is also the Sydney Accord for engineering technologists and the Dublin Accord for technicians. Presently, neither the IEM nor the BEM are involved in the Sydney Accord or the Dublin Accord. But it is about time that we should be thinking of the registration of sub-professionals as well to make the management of the whole construction industry complete.

A proposal was made to the Council of IEM in late 1970s and early 1980s when I was the President, to expand the membership to include the grades of Engineering Technologist and Engineering Technician. Unfortunately, the IEM Council, in its wisdom, decided then not to expand its membership grades similar to that adopted by ICE UK.

I understand that IEM has now approved the admission of the new grade

of Incorporated Member in 2002; but not the grades of Engineering Technologist or Engineering Technician, to avoid confusion in the names of membership.

A new Malaysian Society of Engineering Technologist (MSET), sponsored by Universiti Kuala Lumpur, has been established to cater for these groups of sub-professionals as well. I understand that lately, another new Malaysian Society for Engineering and Technology was registered in April 2008 to cater for all akin professions, including architects, quantities surveyors, etc.

## 12.0 UNIFORM BUILDING BYE-LAWS (UBBL)

The Constitution of Malaysia (then Malaya) defined the areas of responsibilities between the Federal Government and the State Governments. As local authorities are the responsibilities of State Governments, each state had its own local Building Byelaws (until 1984 when the new UBBL was officially implemented by the Minister) until it was decided that it would be more effective if a single Uniform Building Byelaws could be implemented for the whole country.

However, it was not practical to do so without an enabling act. Hence, a completely new Street, Drainage and Building Act (SD&B Act) was drafted and passed by Parliament in 1959. With the SD&B Act (1959) approved, a move was then taken to draft the UBBL which was to be implemented and applied by all local authorities in the country.

A Committee was set up after independence in 1959 on the initiative of the PAM, under the leadership of the late Dato' Kington Loo. With the formation of the IEM, the UBBL Committee was expanded to include representatives from the former.

The UBBL has nine parts and the IEM was assigned the responsibility of drafting Part V on Structural Requirements. In order to allow continuous revisions of the Byelaws, IEM used the technique of 'deemed to be satisfied' clause by citing the current design codes of practice in use. However, other parts of the Bye-laws did not strictly follow the IEM proposal because the design codes for other parts of the UBBL then were not available and they had to be incorporated in full in the UBBL.

Following the collapse of the fourstorey building in Jalan Raja Laut in 1969, a Royal Commission was set up to enquire into the cause of the collapse. A question was raised to the designer, a registered Part II Architect (*i.e.* a Building Draughtsman) registered under the Architects Ordinance, 'Why did he sign the Structural Plans he submitted?' The answer given was that it was only a formality as he was required under the old Building Bye-laws to sign on all building and structural plans as the submitting person.

Consequently, I was advised by the late Prof. Chin Fung Kee, who was a member of the Royal Commission of Enquiry, to ensure that a clause was inserted in Part II of the UBBL on the Submission of Plans for Approval and in Form A of the Submission Form that the submitting person 'accepts full responsibility' for his submission.

The final draft of UBBL was available by late 1970s, but the UBBL had to be translated into Bahasa Malaysia before it could be implemented by the Minister with the agreement of the State Governments. Some states, like Sabah and DBKL, took the initiative to implement the use of UBBL before it was officially implemented in 1984.

Currently, the UBBL is being actively reviewed by the IEM, but it would be quite some time before a new UBBL can be implemented, based on past experience.

## 12.1 WHO SHOULD SUBMIT WHAT PLANS

Before the UBBL was implemented nationwide in 1984, all civil/structural engineers who were registered with the local authorities or registered under the Architects Ordinance were permitted to submit building plans up to four storeys and structural plans of high rise buildings.

The engineering fraternity was unhappy with the development to bar civil/structural engineers from submitting building plans as they were originally registered with the Architects Ordinance. I used my personal contact to persuade the late Dato' Loo, past President of the PAM, to arrange for a PAM practice session to discuss with the IEM on 'who should submit what plans?' A number of meetings were held at Bangunan Ingenieur and, finally, the result was the production of three classes of building plans to be submitted by the professionals, namely:

- (a) Appendix A list of building plans to be submitted by the Architects,
- (b) Appendix B list of building plans to be submitted by the Engineers, and

(c) Appendix C list of building plans that can be submitted by either profession.

A circular letter signed by the Presidents of both Boards was issued to all local authorities informing them of the decision taken by both the Professional Boards, the BEM and the BAM, on 'who should submit what plans'.

#### **12.2 ACCREDITED CHECKERS**

It should be noted that while all architectural building plans submitted to the local authorities are thoroughly checked for compliance with the UBBL, all structural plans submitted to the local authorities are for record purposes only. They are not checked at all by the officers of the local authorities because they do not have the capacity or capability to check such structural/earthworks plans.

Following the vibration felt by the Fitzpatrick building, now known as Wisma Lim Foo Yong, caused by the partial collapse of the road in between two buildings due to the excavation of the Belmont basement construction in 1975, DBKL decided to implement the new Earthworks Regulation which requires all earthworks submissions be checked by a second designer. Initially, DBKL sent all earthworks submissions to an independent checker appointed by them. The submitting engineers objected to the unilateral departmental procedure adopted by DBKL. Hence, a new Earthworks Byelaw was implemented which requires all earthworks submissions be certified by geotechnical engineers registered with DBKL.

Following the Highland Towers collapse in December 1993, I arranged for a delegation from the BEM to visit the Singapore Building Authority to get first hand information of their experience on the Hotel New World collapse in March 1986. One of the decisions taken by the Singapore Building Authority was the use of accredited checkers to check all structural designs of buildings above five storeys and the proper registration of all contractors working in Singapore on all private sector projects.

In this country, before the formation of CIDB, anybody can be a contractor, even those without proper registration and for high-rise buildings! Many developers took advantage of this lack of registration of building contractors working on private sector projects. They even set up their own construction companies to construct their own projects. Such malpractices and conflict of interests were the order of the day! This was one of the causes of collapse for a number of two-storey buildings under construction in private housing projects! Fortunately, no lives were lost, therefore, there was no litigation and public enquiries.

Initially, the BEM was not keen to undertake the registration of accredited checkers and wanted it to be undertaken by the Ministry of Housing and Local Government (MHLG). This matter was discussed for some time and, finally, I approached the President of the Board, telling him that if the BEM wanted the local authorities or the MHLG to carry out the registration, it would be like going back to the old practices before independence, thus making the BEM superfluous as it would have negated its responsibility to the engineering profession! Fortunately for the profession, the President agreed to initiate accredited checkers registration by the BEM.

The concept of the registration of accredited checkers was for public safety and to provide a second opinion on the design concept undertaken by the designer as local authorities are not in a position to check the structural/geotechnical/ civil designs submitted by the 'submitting persons' as specified in the UBBL. It is like the 'Prof Ing' concept in Germany where all important engineering designs have to be certified by the 'Prof. Ing.'.

The registration of geotechnical checkers arose out of an IEM position paper on hill-site development in 2000 after the collapse of Block 1 of the Highland Towers in December 1993. Only Class 3 slopes with slope angle steeper than 26 degrees need to be reviewed by a geotechnical checker.

Ironically, the Highland Towers stood for 18 years until Block 1 collapsed due to a slope failure behind the block and the other two blocks were deemed unsafe for occupation by the local council MPAJ.

The court case went on from 1996 to 2006, and the High Court found that water was the main factor that caused the retrogressive slope failure. The water emanated from poor and non-maintained drainage as well as a leaking pipe culvert carrying the diverted east stream. All experts agreed that drainage was a problem. Strictly speaking, the drainage system failure was the main cause of the collapse of Block 1. Why then do we need a checker in geotechnical engineering? In light of the High Court findings, the IEM should review its position paper.

Obviously, the second design checker cannot be a designer who has just graduated. He must have some experience in works similar to the one he is checking. It is not necessary for the second design checker to have a post graduate degree such as PhD or 40 years of experience in design work. The criterion is for the second design checker to have sufficient experience to undertake the task.

But the initial concept of the registration of accredited checkers has not been fully appreciated, and some applications have been deferred for months by the BEM due to some conflict of interests in the panel of assessors! This had led to the abuse of the registration process and the BEM must rectify this shortcoming!

I understand that, recently, slopes checked by several accredited geotechnical checkers have also failed! Some checkers have accused other checkers of providing misleading information to the IEM Bulletin Jurutera. Checkers are basically businessmen who secure their work; and the actual checks are carried out by young engineers who are not professional engineers. This state of affair is highly unsatisfactory! There are also works designed by checkers that created headline news in the local newspapers as being against the Code of Ethics.

The current position of accredited checkers has not given the public any degree of confidence in the Civil Engineering profession. This was demonstrated by recent media reports and the decision by the Selangor State Government to disallow development on Class 3 slopes with a slope angle steeper than 26 degrees.

I recall that I was consulted by a client on a site next to Highland Towers in early 1980s, and I told the client then that he cannot put up any building there because from several visits to the site, I found that the slope behind his land was unstable and too dangerous for a building to be located on his land at the foot of the slope next to Highland Towers!

One of the main functions of the BEM is to monitor and advance the development of the engineering profession, hence, it should set up an ad-hoc committee to study the problems on the registration and competency of accredited checkers together with the support of the IEM. On the malpractice by Professional Engineers (PE) who had abused their PE Chop contrary to the direction of good practice of the BEM, the latter must take stern action and publicise such cases in the BEM publication and website.

#### 12.3 ONE-STOP CENTRE (OSC) AND CERTIFICATE OF COMPLETION AND COMPLIANCE (CCC)

It is most gratifying to note that after 23 years in the implementation of the UBBL in the country, that the MHLG has finally implemented the OSC and the CCC in local governments. The implementation of the OSC helps the building industry to obtain approval of development projects in a much shorter time.

Meanwhile, the CCC implementation on 12 April 2007, allows professionals to take the responsibility to issue the Certificate of Completion and Compliance immediately upon completion of the buildings without having to wait for the local authority to issue the Certificate of Fitness for Occupation (CFO), thereby cutting the red-tape and ensuring that house buyers and building owners can move in as quickly as possible without compromising their safety.

The Government should be complimented for advancing the administration of 'self regulation, which was introduced in the National Economy Growth Planning strategy to continuously enhance the delivery system.'

## 12.4 NO CERTIFICATION WITHOUT SUPERVISION

There was a BEM Circular sent out to all registered engineers in the mid 1980s, following the full implementation of the UBBL, informing them that they should not certify the completion of works without supervision. This letter was issued by the BEM at my proposal because many clients at that time only wanted the engineers to design the project, but not to supervise the construction of the project.

It should be noted that the supervision fees can be as high as or higher than the design fees for long term projects and the developer/client wants to save on the cost of supervision. Consequently, in my own practice, I had withdrawn from a number of large housing development projects when the developer/client did not want to pay for my supervision of the project. In fact, I had also declined the appointment or the design of a multi storey high rise building project in Kuala Lumpur when the contractor-developer wanted me to provide the structural design without supervision of the building construction because he could carry it out himself!

A registered engineer was recently struck off the register for errors in design as well as for not providing site supervision for the construction of a project. It is hoped that the BEM would make this case known to its members, to act as a deterrent to such negligence and misconduct!

I understand that there are still many developers/clients who are doing their own supervision, notwithstanding the BEM's directive for the design engineer to carry out the supervision work. Engineers who are not supervising their design work are doing so against the directive of the BEM and run the risk of being struck off!

#### **12.5 ENGINEERING AUDIT**

In the paramount interest of public safety and to avoid a conflict of interest, it is proposed that all turn-key contracts must incorporate the appointment of independent consulting engineers from the beginning of the project to provide an engineering audit of the project in progress. In many housing projects, where the developer is also the contractor building the project, a declaration of his interest should also be made to the local authorities so as to ensure that the requirement for the appointment of an engineering audit for the certification of the completed building projects is carried out.

The aforesaid proposal is not in the UBBL and an additional clause in Part II of the UBBL may need to be incorporated in the overall interest of public safety and to avoid a conflict of interest between the housing developers, the contractor and the designer in the same project.

I have personally carried out an engineering audit for a local housing developer on a turn-key contract designed and submitted by a foreign contractor for a high rise apartment using the prefabricated modular method of construction system.

#### 13.0 CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB)

Following his visit to Singapore after the Highland Towers collapse, the President of the BEM agreed to recommend to the Government to set up the CIDB and to register all contractors working in the country as well as all sub-professional technicians working in the construction industries.

This was a step in the right direction to regularise and control the registration of contractors for works in the private sectors as well. Although all public works contractors have been registered with the relevant authorities since independence, construction works in the private sectors were not properly regulated. Anybody can set up a limited company with a RM2 paidup capital and register with the Registrar of Companies as a business operation. Other than the business registration, there was no control over the activities of the contractors working in the private sectors.

To finance the operation of the CIDB, all contractors are required to pay a levy up front for all contracts executed in the country. The fund generated was supposed to be used for the training of contractors and sub-professional personnel. Since its inception in 2000, CIDB has amassed a huge amount of reserve and I was told that, at one stage, there was a proposal for CIDB to venture into contract works with registered local contractors on overseas projects, particularly in India.

It is, in my opinion, absolutely wrong for CIDB to use its surplus fund to venture into contract works at all! How can one be judge and jury, or be referee and player at the same time? There would definitely be a conflict of interest if CIDB ventures into any contracting work in Malaysia or overseas!

CIDB must not be in business, otherwise, it will lose its credibility as an independent body to promote and upgrade the efficiency of the construction industry, however tempting it may be, with so much surplus fund in its coffers collected from the levy.

CIDB should explore ways and means to improve the local building/construction industries by sponsoring research work in institutes of higher learning and courses for personnel in the building/ construction industries; thereby lifting the standard of the building/construction industries, similar to the efforts made by the Building Research Stations in the UK and Australia in the past.

#### 14.0 PROFESSIONAL NETWORKING AND ENGINEERING GLOBALISATION (WITH EWF – ENGINEERING WITHOUT FRONTIERS)

The IEM continues to maintain active links with its sister engineering institutions

overseas and has actively participated in regional and international organisations. These links have enabled the constant exchange of information, joint-sponsorship of conferences, and access to publications and bilateral cooperation.

The IEM is actively involved in the following organisations/activities:

- (i) Commonwealth Engineers' Council (CEC),
- (ii) World Federation of Engineering Organisations (WFEO),
- (iii) Federation of Engineering Institutions of Islamic Countries (FEIIC),
- (iv) Federation of Engineering Institutions in Asia Pacific (FEIAP),
- (v) ASEAN Federation of Engineering Organisation (AFEO), and
- (vi) APEC Engineers Register/EMF International Engineers Register.

#### 14.1 COMMONWEALTH ENGINEERS' COUNCIL (CEC)

The IEM has been a member of the CEC since 1963, sponsored by ICE UK. It has attended all CEC meetings held in various countries of the Commonwealth. The aim of the CEC was, 'to advance the science, art and practice of engineering for the benefits of mankind recognising that engineers play a crucial role in the development of our infrastructure and wealth creation'.

The last CEC biennial meeting was held in Brisbane in 2001. Since the 2001 meeting, CEC has been changed to a virtual organisation. ICE UK still provides the secretarial services for the CEC. The late Prof Chin Fung Kee was the Chairman of the CEC for quite some time.

#### 14.2 WORLD FEDERATION OF ENGINEERING ORGANISATION (WFEO)

WFEO was founded in 1968 by a group of engineering organisations, including the CEC, under the auspices of UNESCO in Paris. It is a non-governmental international organisation that brings together national engineering organisations from over 90 countries and represents about 15 million engineers around the world.

WFEO meetings were also held immediately following the CEC meetings so as to enable as many CEC members to attend the WFEO meetings. Subsequently, since 2001, WFEO meetings were held independent of the CEC. Ir Datuk Lee Yee Chong was the President of WFEO for the 2005/2007 session.

#### 14.3 FEDERATION OF ENGINEERING INSTITUTIONS OF ISLAMIC COUNTRIES (FEIIC)

The Federation of Engineering Institutions of Islamic Countries (FEIIC) was formed in 1989, consisting of members from a number of Islamic countries. Over the years since its formation, FEIIC has organised General Assemblies in Amman (Jordan 2004), Kuching (Malaysia 2002), and Almaty (Kazakhstan 1999).

Presently, the FEIIC International Secretariat is based in UPM, Malaysia.

#### 14.4 ASEAN FEDERATION OF ENGI-NEERING ORGANISATIONS (AFEO)

AFEO was founded in August 1982, following the 3rd CEISEAN meeting in 1981. As a result of the 4th CEISEAN meeting in Indonesia in 1982, it was renamed CAFEO 1. Since then, CAFEO is held annually by rotation in ASEAN member countries. CAFEO 27 was held in Bangkok from 26-29 November 2008.

AFEO has grown from five members in 1980, comprising of EIT (Engineering Institution of Thailand), IEM, IES, PII (Persatuan Insinyur Indonesia) and PTC (Philippine Technological Council), to the 10 full memberships of ASEAN, with the inclusion of PUJA (Pertubuhan Ukur, Jurutera dan Arkitek, Brunei) in 1984; VUSTA (Vietnam Union of Science and Technological Association) in 1998; MES (Myanmar Engineering Society) in 2000 and EIC (Engineering Institution of Cambodia) in 2001; Lao PDR in 2002.

## 14.5 ASEAN ENGINEERS REGISTER

Since 1998, AFEO embarked on a very important mission with the aim of spreading and facilitating the mobility of engineers within the ASEAN Free Trade Area (AFTA) with the formation of the ASEAN Engineers Register (AER). This was in line with the AFTA's AFAS programme for the liberalisation of professional services within ASEAN to prepare for globalisation under the World Trade Organisation (WTO) initiative.

## 14.6 ASEAN MRA (MUTUAL RECOGNITION AGREEMENT)

The IEM is holding discussions on the ASEAN MRA in Engineering Services and championing the establishment of a licensing board for each AFEO member country. It is looking into cultivating a working relationship with the ASEAN Secretariat for effective MRA implementation.

### 14.7 APEC ENGINEERS REGISTER AND THE ENGINEERS MOBILITY FORUM (EMF)

The IEM signed as a signatory to the Engineers Mobility Forum (EMF) Agreement on 25 June 2001 in South Africa. Ten other representative bodies from Australia, Canada, Japan, Korea, Ireland, Malaysia, New Zealand, South Africa, the UK and the US were also signatories to the agreement.

The purpose of the EMF Agreement is to establish and maintain an EMF International Register of Professional Engineers. This agreement intends to provide a framework for the recognition of experienced professional engineers by responsible bodies in each of the signatory economy.

The APEC Engineers Register and the

EMF International Engineers Register are part of the initiatives for trade liberalisation of professional services, reducing barriers and easing the process of engineers gaining access to work and practice in other economies.

Engineers in these registers shall have their competence recognised by APEC and international member economies. This is of particular benefit to engineering firms that are providing services to other APEC and international member economies, but it also adds value to individuals who may wish, at some stage, to work in the APEC and international member economies.

For the APEC Engineers Register, Malaysia is one of the eight founding members, represented by the IEM. The other country members are Australia, Canada, Hong Kong, China, Japan, Korea and New Zealand.

#### 14.8 CONCLUSION

Being a member of the engineering profession for the past 50 years and being extremely grateful to the profession for granting me such a satisfying career, I feel obligated to record my personal experience and observations of the engineering profession for half a century in this country. My sincere apology again to all those who may feel slighted or offended by my observations and remarks in the aforesaid discussion.

There appears to be some conflict of interests in the engineering profession between the BEM and the IEM. It is hoped that, eventually, a closer rapport can be redeveloped to cement back the original bond between the two bodies and to understand the different roles played by each organisation to create a win-win situation. ■

## **Reports on Activities by EETD**

by Engr. Dr Faris Tarlochan, Grad. IEM

#### REPORT 1: SEMINAR ON SUBMISSION TO AUTHORITIES MADE SIMPLE

The Engineering Education Technical Division ( $E_2TD$ ) had successfully organised a one and a half day seminar on 'Submission to Authorities Made Simple', which was held on 18-19 March 2008 at Equatorial Hotel, Bangi. The objectives of the seminar were:

- Enlighten participants on the latest submission requirements
- Disseminate information regarding submission procedures
- Help to expedite the submission and approval process
- Acquaintance with officials from various approval authorities

Overall, the response was overwhelming. A total of 139 participants from various professions including academics, consultants, contractors, designers, engineers and technologists from the field of building services, electrical, mechanical, oil and gas, production and manufacturing attended the seminar.

The participants were very pleased, and suggested that the seminar should be held again and to add submission requirements from the Fire Brigade. EETD is working on the details in order to organise this seminar again for 2009.

### REPORT 2: WORKSHOP ON 'OUTCOME BASED EDUCATION – DERIVING FROM FIRST PRINCIPLES'

The millennium has brought numerous education reforms, but few of them were a dramatic shift from what has occurred

before. Outcome-based education (OBE) is a concept which is new, even revolutionary, and is now being promoted as a new technique to ensure that engineering higher education is able to produce graduates who would be absorbed by the industry immediately upon graduation.

Outcome-based education will change the focus of institutions of higher learning; from the content to the student itself. A lecturer's role will become that of a coach aiming to move each student towards pre-determined outcomes rather than attempting to transmit the content of the present civilisation to the next generation in a scholarly fashion.

In view of this, a one and a half day workshop on 'Outcome Based Education – Deriving from First Principles' was held from 21-22 May 2008 at Residence Hotel, UNITEN. The objectives of this workshop were:

- Enlighten participants on what is OBE
- Sharing the experience of the different education styles and profession in the development and implementation of OBE
- Help participants to understand how to go about developing the program outcomes, program objectives and linking them to the learning outcomes and assessment requirements

Overall, the response was overwhelming. A total of 50 participants, comprising of academics, attended the workshop. EETD is working on the details in order to organise this workshop and a series of related workshops for 2009. ■