

## Looking Back At The Past

**Y. BHG. DATO'** Engr. Pang Leong Hoon's association with The Institution of Engineers, Malaysia (IEM) can be traced back to the past several decades, in fact, all the way back to the formation years of the institution. He is among one of the earliest Members of IEM, with a membership number 0015. He was also the President of IEM from 1984 to 1986.

These are testimonies to his loyalty and dedication to the largest professional Institution in the country. In conjunction with IEM's 50th Anniversary, JURUTERA gets Y. Bhg. Dato' Engr. Pang to share his insights on the Institution's history, achievements and growth.



### 1.0 How did you become involved with IEM?

After graduation and having worked for about two years with the Commonwealth Department of Works, Melbourne, Australia, I returned home to Malaya (now Malaysia) and joined the Drainage and Irrigation Department (DID) as an engineer in October, 1958. At that time, the Director of DID was Mr. Ow-yong Hong Chiew and the State DID Engineer, Selangor was Mr. J. G. Daniel. Both of them, my bosses, were active and founder members of the IEM. They were the ones who encouraged me to apply for membership with the newly formed IEM. I felt then that as an engineer and as a citizen, it was only right and proper that I should be a member of IEM, the learned society in the country.

It was only after my transfer to the DID (HQ) Kuala Lumpur in 1970 that I began to take an active part in the IEM activities and affairs. Already a Corporate Member of IEM since 1964, I was again encouraged by Mr. J. G. Daniel to be more involved with the IEM. In 1973, Mr. J. G. Daniel urged me to offer myself as a candidate for Council Election Session 1973/74. I was successful as the Honorary Treasurer and since then I was fully "immersed" in the activities and affairs of the IEM, holding various offices in the IEM Council, over a period of time.

I was the President of the IEM for two Sessions, 1984/85 and 1985/86 when I was still in government service. Later, as one of the Past Presidents, I was very honoured indeed to be invited by the IEM Council each year to serve in the Council. I fully appreciate the confidence and trust of the IEM Council to also appoint me (under Article 5.5 of the Constitution) as the Election Officer each year since 1989 for the proper conduct of the IEM election.

### 2.0 What do you know about the early formation of the IEM?

Before IEM was formed, Malaya was a British colony. There were many expatriate engineers who were Members of the Engineering Institutions of UK. These engineers formed a Joint Group (ICE, IMechE and IEE) to represent themselves in Malaya. At that time, it was very difficult for local engineers to be admitted as Members of the Institutions.

Soon after Merdeka, a group of local engineers felt that a national body for engineers should be formed in the spirit of Merdeka. Among the engineers, there were split opinions. Some were against the formation of the IEM, while others were sceptical that the effort would bear any result. Fortunately, the majority of engineers held firmly onto the belief of forming their own Institution.

Several meetings of the Protem Committee were held to trash out the details. The prime movers then were En. Yusoff bin Hj. Ibrahim (Chairman) and Mr. F.S. Lau (Secretary). On 1 August 1958, the Inaugural Meeting to form the Institution was held. During the Inaugural Meeting, it was decided that those who attended the meeting should be considered as founder members. However, even among the founding members, (39 engineers), not everyone joined the Institution after it was formed. The founding members were very wise to decide then that the IEM should be a single entity to cover all engineers. At that time, there were not many engineers in the country. This turned out to be a blessing in disguise.

The main factor that helped to solidify and develop the Institution during its formative stage was the strong support given by many of the heads of government



engineering departments such as the Public Works Department (PWD), Drainage and Irrigation Department (DID), Central Electricity Board (CEB) (later known as TNB), Malayan Railways and Local Authorities as well as the private consultants. As heads of government departments, they encouraged many of their officers (a majority of engineers in the country then) to join the Institution and were very supportive.

### 3.0 How different is IEM today compared to when it was first established?

Firstly, the composition of IEM members now is very different if you compare the past and the present. In the early days, the majority of members were from the government engineering departments. Today, quite a large number of them are from the private sector.

The main differences over the past years could be shown as below: -

#### (i) Engineering Disciplines

Initially, the engineers were from the traditional disciplines such as Civil, Electrical and Mechanical. Over the years and with the development of science and technology and also the market demands, the disciplines have also increased. There are now 70 headings of engineering disciplines, similar to the BEM list, on the registration of IEM.

Although the majority members of IEM are from civil engineering, members from other engineering disciplines are not sidelined. There is an unwritten understanding that the office of the President of IEM shall be rotated among the various disciplines. At no time should the Deputy President be elected from the same discipline as the President.

#### (ii) Membership

From a modest membership of 39 when the Institution was founded on 1 August 1958, it now has 16789 members. Accordingly, the increase in membership (418 folds) is accompanied by diverse interest of members.

#### (iii) The Constitution and By-Laws

To meet with time and changing situations, the Constitution and By-laws had to be amended or revised to allow for the enlargement of the Council and the creation of a number of Standing Committees to look after the specific functions of the Institution and also to allow the provision for establishing Branches.

#### (iv) The IEM Secretariat

Initially, the IEM was a “squatter” (so to speak). In October 1970, through the good offices of Allahyarham Raja Tan Sri Engr. Zainal bin Sulaiman, the IEM was offered an office space at Jalan Timur, NEB District Office. IEM now has its own building, Bangunan Ingenieur and has recently purchased another bigger building, Wisma IEM to meet its future needs.

The Secretariat staff then was mainly made up of Mr. Shan Thuraisingam, Ms. Lilian Tan and clerks in the 70s. It has now expanded to 34 with a full-time paid Executive Director.

The office management has now also been enhanced with IT facilities.

Over the years, IEM has expanded vertically as well as horizontally. The workload has also increased many folds with more activities being organised for members. It is like a small provision shop, which has over time developed into a hypermarket.

### 4.0 What are some of IEM’s greatest achievements in the past 50 years?

IEM has made some notable achievements in the past few decades. Firstly, IEM is tasked with assisting the Government in the accreditation of engineering courses at Institutions of Higher Learning. Secondly, IEM plays a very active role in engineering matters of public concern especially on landslides, earthquakes and tsunami. Very often, IEM put forward position papers to inform and

## INTERVIEW

advise the government and the public alike on current issues from an engineering point of view.

In the region, the IEM was one of the prime movers among the Asian engineering fraternity involved in setting up of the Conference of the Asean Federation of Engineering Organisations (CAFEO). IEM is also the permanent secretariat for the ASEAN Engineers Register (AER). Members of IEM play very active roles in many local and international organisations.

Although the past 50 years might appear like yesterday, it has been a very long time. To answer the above question, I would wish to recall the followings: -

### (i) Membership Development

Like any society or Institution, membership development should be the top priority. New members are the life-blood of the Institution.

The Institution has done pretty well in its membership development over the years. It has often said that the ability to attract new members is the acid test of a successful Institution. Of course, there is still room for improvements.

### (ii) The Constitution and By-laws

The first draft Constitution and By-laws were tabled and accepted by members at the Inaugural Meeting held on 1 August, 1958.

Over the years, the membership had increased and this has been accompanied by diverse interests of members. It was necessary then to carry out a major review and to make amendments to the Constitution and By-laws. The main amendments were for an enlargement of the Council and the creation of Standing Committees and the provision for IEM Branches in the states.

The revised Constitution and By-laws were accordingly adopted by members on 2 May 1975. This was a big step forward for the IEM to meet the requirements of members and the challenges.

### (iii) Learned Society Activities

To fulfil its fundamental roles in promoting and advancing the science of engineering, IEM has progressively improved its performance. This has been evidenced by the many local and international Seminars, Conferences and Specialist Courses organised by IEM. Currently, there were 11 IEM Branches in the states, 17 Technical Divisions and special groups, and the Graduates and Students Section to cater for the interest of members. The introduction and implementation of CPD programme and the CPD hours by Board of Engineers, Malaysia has enhanced the participation of members in the IEM programmed activities. It is heartening to note that all the achievements in this field have been due to the efforts and honorary services of dedicated members. Volunteerism is still around at the IEM!

### (iv) Safeguarding the Interest of Engineers

Whilst concentrating on its main role as a learned society, the IEM has at the same time played its part to safeguard the interests of engineers. IEM had and continues to represent engineers on government committees and other organisations to present its views and to put forth its stand pertaining to engineering issues and other relevant matters in the country.

At times, IEM has to lobby to protect the engineers in connection with legislations which regulate or affect engineering professional practice, welfare of

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engineers, and the protection of public interest such as the current proposed amendments to the Registration of Engineers Act 1967 (Revised 2007), the Geologists Act and the Appraisers and Estate Agents Act 1981 (VAEC Act).

### (v) Regional and International Relation

After its formation, the IEM has developed strong ties with other national and international engineering organisations, notably the UK engineering institutions, the World Federation of Engineering Organisations (WFEO) the Commonwealth Engineering Council (CEC) and Federation of Engineering Organisations of Southeast Asia and Pacific (FEISEAP). Recognising that more tangible benefits could be achieved if we concentrated our efforts on our neighbouring countries, IEM hosted the first Convention of Engineering Institutions of South East Asian Nation (CEISEAN) in Kuala Lumpur in 1978. At the second CEISEAN in Manila in February 1980, it was resolved to formalise this organisation and confine it to ASEAN countries. The new organisation then was renamed ASEAN Federation of Engineering Organisation (AFEO) and it is affiliated with the ASEAN Secretariat. It provides a prominent platform for ASEAN engineers to discuss issues and topics of common interest, thus promoting better understanding, goodwill and co-operation.

### 5.0 Who do you think were some of the greatest leaders that presided over IEM?

There were many key players who provided the push during the early formation of IEM. This included the founder President Allahyarham Engr. Tan Sri Yusoff Haji Ibrahim, who was the Director-General of JKR at

that time. His successor Allahyarham Raja Tan Sri Engr. Zainal bin Raja Suleiman, who was then the General Manager of CEB, had also provided strong support, meeting places and later the IEM's temporary office space in Jalan Timur, Petaling Jaya, Selangor (NEB District Office).

Following the earlier leaders, we had a national and international renowned leader in the late Tan Sri Datuk Engr. Prof. Chin Fung Kee. He had generously shared his extensive knowledge through various seminars, conferences and position papers. In recognition of his contributions, the IEM had set-up the Tan Sri Engr. Professor Chin Fung Kee Scholarship for deserving students to pursue a degree course in engineering.

Another great leader was the late Engr. Thean Lip Thong (Director General PWD), who during his time encouraged the IEM to hold many International Conferences in the country. As for the late Tan Sri Engr. (Dr) J. G. Daniel, he had played an important role in consolidating IEM's organisational set-up and the programmed activities. He has been the Chairman of Ad-Hoc Committee on Amendments to the IEM Constitution and By-laws over the years.

### 6.0 How can young engineers contribute towards the IEM's successes?

I would like to paraphrase a famous line from John F. Kennedy's 1961 address after being sworn in as the 35th President of USA, 'ASK NOT WHAT IEM CAN DO FOR YOU; ASK WHAT YOU CAN DO FOR IEM.' It is a fact that an Institution is as strong as the strength of its members. IEM is no exception. IEM organises many seminars and talks for members to gain knowledge and also to widen their views and understanding. At the same time, these also provide a good platform for

## CALL FOR NOMINATIONS

### 2009 MALAYSIA TORAY SCIENCE FOUNDATION (MTSF) AWARDS

- A) **SCIENCE AND TECHNOLOGY AWARD** to recognise Malaysian scientists with outstanding achievements in their fields of research and to provide financial assistance to deserving young Malaysian scientists to support their basic research in their related fields.
- B) **SCIENCE AND TECHNOLOGY RESEARCH GRANT AWARD** to recognise Malaysian scientists with outstanding achievements in their fields of research, to provide financial assistance to deserving young Malaysian scientists to support their basic research in their related fields as well as those recommended by the representatives of science institutions or universities.

Each year, the foundation will make the following awards/grants:

- (a) Maximum two (2) Science and Technology Awards of RM30,000.00 and a certificate each; and
- (b) Five (5) to ten (10) Science and Technology Research Grants each ranging from RM30,000.00 to RM60,000.00. The total amount of grants is around RM300,000.00.

Further details can be obtained from the Secretariat of MTSF at 604-390 8157 / 385 4151 or fax to 604-390 8260 or email [mtsf@toray.com.my](mailto:mtsf@toray.com.my) or view the details on the homepage [www.mtsf.org](http://www.mtsf.org). **The submission deadline is before 31 May 2009.**

Thank you.



young engineers to share their ideas and knowledge as well as to have fellowship.

To contribute towards the IEM, young engineers should be more active and provide the support. Being members of the Institution, they can voice their views and requirements to influence the leadership and also the Institution. This will make the Institution more sensitive, responsive and strong.

Currently, there are 8306 graduates and students or 50% of the total membership. The Institution's is aware of the importance of young engineers who will be future leaders of the IEM. Therefore, membership development and the recruitment drives for members, particularly the students and graduates are very important to the IEM.

The participation of young engineers in the programmed activities of the Institution is one important contribution young engineers can make. It should be taken as a professional obligation for young engineers to support the Institution. Active membership is an integral part of being a true professional. The IEM cannot provide professional status outright to individual engineers. That has to be earned through individual deeds valued by fellow engineers and other people.

#### 7.0 In what areas do you feel that IEM can further improve on?

In general, the IEM should be more vocal in the media pertaining to relevant affairs and issues such as the recent landslides and hill slope development.

One of the areas is the IEM Training Centre, the commercial arm of the Institution. The IEM should seriously review and decide what should be the future of the Centre. It is timely to review the original intention and objectives of the Training Centre (back to the basics) and to come up with an effective road map.

The IEM need to get more involved with the engineering and manufacturing industries to understand and identify their needs. IEM should work more closely with them to see how it could help them to benchmark their engineers and improve their engineers' skills and productivity.

#### 8.0 What do you hope to see IEM achieve in the next 50 years?

The next 50 years is a very long time and the IEM must be aware that the world situation is changing fast resulting in new challenges.

In the areas of management and communication, the IEM have to further improve itself with IT development. The Institution will have to find better and more efficient ways to reach out to its members to enhance greater participation.

There is a need to speed up the re-engineering of the IEM to meet the challenges ahead in areas of: -

- (i) Environment
- (ii) Sustainable development
- (iii) Climate change
- (iv) Clean fuels and renewable energy
- (v) Impact of growing population and food security

To keep pace with the changes and challenges, the IEM will have to provide guidelines and position papers to advise the authorities and for its members to meet the future. The IEM's close connections or relations with other engineering bodies or Institutions in the world could provide us the network to develop guidelines and solutions to meet our national needs.

Whatever the case, IEM should take the lead in the quest of change. As quoted by the IEM President in his Presidential Address Session 2008/2009, "to change the engineers from being nation builders to become nation movers." ■

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