New IEM President – His Vision for the Institution

By: R.G. Candiah

The Institution of Engineers, Malaysia's (IEM) new President, Ir. Prof. Dr Ow Chee Sheng is no newcomer to the Institution. Over the years, having served in the different positions of Council member, Honorary Treasurer, Honorary Secretary, Vice President and subsequently Deputy President, this learned individual is geared to implementing some new and vibrant ideas into this organisation.

Humble in nature, Dr Ow, as he is fondly referred to, declined to reveal his many achievements and went straight to outlining his goals for IEM during his tenureship as the President.

According to Dr Ow, IEM's role has changed tremendously since its birth in the beginning after Malaysia's independence and there is a need to recognise the paradigm shifts which have since taken place and take steps to address these challenges in order to remain relevant.

Amongst these steps include several local and regional initiatives which IEM should undertake as well as existing initiatives that need to be further strengthened.

Rating of Engineering Faculties

Dr Ow believes that engineering education is one of the major regional challenges facing the ASEAN Federation of Engineering Organisations (AFEO) and IEM and there is a need to rate engineering education establishments regionally and locally so that a degree of comfort is provided to the public as to which engineering faculty is best for a particular discipline for students to begin his or her pursuance of an engineering career.

"Historically, due to the practice of sending students to universities overseas, a level of comfort is achieved when such graduates returned to work within the country. This de-facto recognition grew out of respect for such qualifications due to the remarkable performance of overseas returning graduates," he said.

"Such is no longer true when commercialisation of education is in place as seen today. Whilst universities still provided the necessary education for those who qualified and needed it, the comfort level one has with these are no longer benchmark-able. Henceforth there is a dire need for rating to be conducted by professional bodies which are independent and not influenced by any party," he said.

Ir. Prof. Dr Ow Chee Sheng, IEM President for Session of 2005/2006

"The spirit of this rating includes employing a standard set of criteria agreed by members. AFEO, for example, should set the benchmark for the region. The comfort we gain from such an exercise would be similar to the Washington Accord whose purpose is to provide mutual comfort in each participating signatory's accreditation methods and standards to be achieved for graduate engineers. This exercise is one which is continuous, requiring long term commitment on the part of all signatories," he said.

Role of Regional Registers

The role played by IEM at regional and international forums is very important, according to Dr Ow. "The Standing Committee for Corporate Affairs was created to undertake this job and under this Standing Committee, the register for ASEAN Engineers, Asia Pacific Economic Cooperation (APEC) and Engineers Mobility Forum (EMF) have been developed. The ASEAN Engineers Register (AER) being a trade register for professionals within ASEAN was set up by AFEO in which IEM is a founder member. The APEC and EMF registers are separate registers set up respectively by APEC economies, namely countries which reside around the Asia Pacific rim, and from the Washington Accord countries. The aim of these registers is to benchmark professionals within each region as having substantial equivalence."

Dr Ow said that these regional benchmarks should be maintained so that a regional level of comfort can be assured when clients utilise services of professionals in these registers.

"A system of maintenance and continuous recognition of competency should be instituted so that those who are no longer in active engineering practice should be gracefully phased out," he said.

Position Statements

During the era of past president Dr Gue See Sew, many Position Paper Committees were set up to address current and future issues facing the profession.

There are presently more than 15 Position Paper Committees working within the IEM set up, the latest being on Design for Earthquake. The purpose of such documents is to express IEM's position on various issues which affect

Countless of Presidents have moulded the IEM into being the backbone of the Engineering Profession in Malaysia

the nation and the engineering profession. Members of the Position Paper Committees are drawn from IEM's membership as well as from those having the expertise outside IEM.

"As these are statements of support for certain technical issues, they also provide necessary data for writers of policy papers to quote when needed. This is an ongoing process in which reviews shall be carried out at regular intervals to update the document, albeit another long term commitment which IEM has undertaken. We have seen that some of these Position Statements have served its purpose by providing the much needed professional stand of engineers to those who needed it to make policy decisions," he said.

Meeting the Realistic Challenges

Every non-profit society faces external and internal threats. For IEM in particular, the internal threat sometimes overwhelms the external threat via differing views amongst Council and Executive Committee members with secretariat staff caught in the middle.

"I would like to put forth the idea that key positions within the IEM structure should seek the person instead of the present method of the candidate seeking the post for whatever reasons," he said.

"What are the tools available for the membership to identify future leaders and yet at the same time train the younger members to become future leaders as well? We have a constitution which is sufficiently flexible for this to be implemented but then the will to do so must prevail. How do we enhance technical relevance and competency and look after the professional well-being of our members?" he asks.

Initiatives Taken by IEM Council

According to Dr Ow, there are five pressing needs that need to be looked into, namely, to orientate new Council members, provide leadership training, identify new leaders and to promote fellowship and build teamwork amongst Council members.

"The last IEM Council had gone for a brainstorming retreat to address the above issues. The major issues discussed at the October'04 council brainstorming could be divided into four major areas although there are more issues facing the IEM council at present. Further similar activity shall target towards addressing the remaining issues in the near future," he added.

The objectives of the brainstorming were fourfold: addressing IEM's value to the general membership, IEM's leadership and the competition, IEM's nimbleness and responsiveness to current issues and IEM's issue of volunteerism, education, marketing and certification. The topics discussed included:

- Future role of IEM as a membership driven society
- Empowerment and delegation
- Council effectiveness and governance
- Products and services to meet membership/society needs

On a lighter note, Dr Ow in a traditional costume with two of his daughters on the occasion of his eldest daughter's wedding

"On the future role of IEM as a membership-driven society, the questions addressed included how IEM fared in the past, its present performance and how it should fare in the near future. The reality is that our membership has stagnated (number of delinquents equals the number of new members) and that is an immediate challenge for the IEM Council to address," he said.

"To make the society more nimble and responsive to current issues, a certain degree of empowerment and delegation is needed," adding that it was always easier said than done.

"However, with such empowerment, there must also be in place a reliability centre scheme so as to ensure that such delegation of Council's authority does not lead to lengthy litigious issues," he said.

"The Council should also address the issue of Council effectiveness and governance by the Council. Is the Council and its Executive Committee into too much micro-managing whilst missing the 'Mega' issues facing IEM? Are we providing the right kind of products and services for the members so as to retain membership loyalty? Even the more successful societies of the West do face the question of ageing membership and the loyalty of its current crop of members," he said.

Dr Ow is of the opinion that volunteerism is very much alive amongst IEM's membership both new and old.

"We need to address the role of our Past Presidents more effectively and orientate new volunteers so that they know when and how to steer clear of issues of conflict of interest," he added.

"Arising from the brainstorming, an action plan has been drawn out. I hope we can fulfil 30% of the identified critical areas, within the year," he said.

Speed of Change and Advocacy

Change is constant and if IEM is aware of the changes which surround it, it can advocate suitable responses to meet these challenges.

"A particularly important area which IEM can look at is the realm of advocacy. Engineers need to face the challenges of advocacy to achieve one's eventual objectives. Again being a learned society the issues in advocacy runs contrary to our very existence. This is another issue for the Council to address," he said.

Benchmarks

Serving the needs of members first and society second, IEM is faced with major challenges ahead, some of which require the review of existing strategies and benchmarks.

"The benchmark of engineering education standards need to be looked at. Through our accreditation practices of the past and our present involvement with the Engineering Accreditation Council (EAC) hosted by the Board of Engineers, efforts toward maintenance of minimum engineering academic achievement have been made," he said.

Dr Ow said that with the world trend of moving towards an outcome based evaluation of engineering programmes, universities will have to closely monitor the performance index of their products even after the student graduates so as to see their competitiveness and relevance to the industry.

He added that in addition to serving as a partner in the Engineering Accreditation Council (EAC), IEM should also work closely with overseas learned societies to directly accredit

engineering programmes requested by local and regional universities so as to complement the EAC's effort.

Dr Ow however is of the opinion that the EAC would be redundant if it fails to get Malaysia into the Washington Accord as a full member within a specific timeline.

"IEM has with the BEM been conducting an annual examination for the working technical sub-professional to acquire the basic qualifications for becoming a professional engineer. In this respect, the Engineering Council of UK (EC) examinations for which we adopted as a ready benchmark have served its useful purpose. With the recent sub-contracting of EC examinations to City and Guilds, a profit body with some conflict of interest, it would be wise for IEM to develop its own local benchmark with the assistance of local Institutions of Higher Learning of acceptable standards," he said.

"On the professional inter-view for corporate membership of the institution, there is a need to define the benchmark which corporate members needed to meet and not leave it to be benchmarked against the experiences of the professional interviewer so appointed," he added.

Targeting of Non-Corporate Members

Dr Ow said that the non-corporate members' category of the recently amended IEM Constitution needed to be addressed.

"We have a larger body of engineering-based workforce which IEM should embrace so that they too have a platform to voice their priorities. In the UK two models are available. The Chartered Technician and Incorporated Member category is spelt out within the Institution of Civil Engineers Charter (ICE) whereas a new Institution of Incorporated Engineers (IIE) is formed specifically to cater for members of non-civil disciplines," he said.

"The IEM has followed the ICE model in as far as the incorporated member category is concerned but much effort needs to be done to get this category of membership expanded in our register. Perhaps with the active participation of the Graduate and Student's Section we can see some movement of membership in this category," he concluded.

Diversity

Due to the diverse member-ship categories which form IEM, there is a need to constantly safeguard against fragmentation.

"As such it had been a gentlemen's agreement to rotate the Presidency amongst the 3 major disciplines, a practice in place in the past and until the present. Recent trends have tended to lean more towards Civil Engineering due perhaps to the larger number of active civil engineers within IEM's membership. We need to safeguard that the Council and Excomm speaks and expounds the views of all engineers and not one discipline alone. Our strengths and weaknesses lie in our diversity," he said.

"If we do not duplicate efforts by the formation of more institutions each representing a different discipline, we somehow have to respect the aspirations of all members other than the majority," he added.

Role of IEM and BEM

Although IEM assisted in the setting up of the Board of Engineers with the enactment of the Registration of Engineers Act, 1967 which has since been amended, the role of these two bodies are significantly different, one addressing the issue of public safety whilst IEM is the society representing the engineers themselves.

"Complementary rather than competitive functions are seen here and sometimes these functions appear to overlap. I do see the need for IEM and the BEM to work together towards fulfilling the aspiration of the nation but sometimes it is the players who need to be reminded regularly," he said.

"IEM is merely a vehicle, the subscriptions being payment for its fuel, to be steered by its membership and I wish to reiterate that one should not ask what IEM can do for you but what you can do for IEM to make it a worthy body which represents the engineers here," Dr Ow concluded. ■

The text of this article is based on an interview with Ir. Prof. Dr Ow and on the text of Ir. Prof. Dr Ow's Presidential Address delivered at the recent IEM AGM.

A BRIEF PROFILE OF DR. OW

Dr Ow graduated from the University of Canterbury (New Zealand) with a BEng (Hons) in 1972 and holds a PhD from Imperial College, London (1980).

The 56 year old father of three girls has been with the Universiti Teknologi MARA (UiTM) since 1973. Prior to that he served as a Research Assistant in the Mechanical Engineering Department, Faculty of Engineering, University of Canterbury, New Zealand.

He has contributed well over 60 papers in journals, proceedings and seminars and currently is an authority on Marine Growth Prevention in Malaysia. He is behind numerous Malaysian inventions in the field of marine growth prevention and these inventions are used worldwide by large conglomerates and governments. To the uninitiated in this unique field, the field of marine growth prevention and research saves oil and gas companies millions through the pioneering of unique marine growth control solutions for marine structures.

His area of expertise is the breaking down of the marine colonisation process by preventing the formation of microbial slime or micro fouling. Hard fouling organisms such as barnacles, oysters, and tubeworms, together with soft fouling organisms such as anemones, hydroids, and sponges are denied an environment of nutrients in which to breed and develop, resulting in a zero-growth surface finish.

Dr Ow is behind the development of "fins to drive", a specially designed apparatus, powered solely by natural ocean forces and their own buoyancy which provides continuous rolling actions over submerged structures. The repeated up and down sweeping motion prevents the settlement of micro fouling, and maintains the surface free of marine growth, thereby protecting offshore installations.

He is currently involved with the IEV Group of Companies which holds the patent in this unique marine growth control solution for marine structures.