

In Memory of Professor Tan Sri Engr. Chin Fung Kee



Ir. Yee Yew Weng

Ir. Yee Yew Weng is the organising chairman of the 25th Annual Professor Engr. Chin Fung Kee Memorial Lecture.



Engr. Dr Wang Hong Kok
IEM

Engr. Dr Wang Hong Kok is the Principal Lecturer of TAR University College. He is a member of IEM Standing Committee on Information and Publications.



Ir. Dr Ooi Teik Aun

Ir. Dr Ooi Teik Aun is the organising chairman of the Commemorative Dinner.

19 September 2015 was another important date for The Institution of Engineers, Malaysia (IEM). In the morning, Tan Sri Dato' Ir. Shahrizaila Abdullah was invited to deliver the 25th Professor Engr. Chin Fung Kee Memorial Lecture in the hall that bore the name of the great professor himself.

Earlier in the evening of 12 September 2015, a special dinner was held at the Grand Ballroom of One World Hotel, again to commemorate Professor Engr. Chin's dedication to engineering education and profession.

This is the compilation of three separate reports. The first is a brief introduction of Tan Sri Dato' Ir. Shahrizaila Abdullah's lecture. The second is a short reflection of Tan Sri Dato' Ir. Shahrizaila's lecture and the third is a short account of the life of Professor Engr. Chin.

Tan Sri Dato' Ir. Shahrizaila Abdullah is known for his long years of dedicated service in the Malaysian civil service. He was the director-general of Department of Irrigation and Drainage (DID) until retired in 1995. He is the Senior Fellow of the Academy of Sciences and is active in a number of international organisations tasked with finding solutions to sustainability issues concerning water and related matters.

TAN SRI DATO' IR. SHAHRZAILA'S LECTURE

Tan Sri Dato' Ir. Shahrizaila Abdullah delivered the 25th Professor Engr. Chin Fung Kee Memorial Lecture titled "Ensuring a Better Water Future for Malaysia". He began by saying that current global water issues were due to improper water management and overuse of water resources.

Besides that, he added, population growth, urbanisation, industrialisation and increase in production and consumption also meant an ever-increasing water demand around the globe. He highlighted in detail the major water related issues in Malaysia in terms of threats to water security, agriculture, environmental degradation and ecosystem.

As Malaysia has a total of 189 river systems, Tan Sri Dato' Ir. Shahrizaila suggested that each river should have a river basin engineer to manage and plan for the water resources development in that specific region.

"Our current water management is very fragmented because, under the Constitution,

matters pertaining to natural resources such as land, minerals, forests and water fall under the jurisdiction of the various States," he said. "Water becomes a federal matter only if a dispute arises as in the case of a river basin shared between two or more States. Otherwise, State Governments are responsible for water management including the gazettelement of water catchments."

In conclusion, Tan Sri Dato' Ir. Shahrizaila suggested that an Integrated Water Resources Management (IWRM) Body should be adopted nationally in order to improve the current situation.



Tan Sri Dato' Ir. Shahrizaila (top) and audience (bottom) at the 25th Professor Engr. Chin Fung Kee Memorial Lecture

During the question and answer session, Dato Ir. Pang Leong Hoon (an ex-DID director general) asked: "Will water as a resource, be properly used and not subjected to abuse if the water consumption rate is raised to a level reflecting its importance?"



Dr. Chan S.F. (left photo) and Y.Bhg. Dato' Ir. Lim Chow Hock (right photo) presenting a memento and Certificate of Appreciation to Tan Sri Dato' Ir. Shahrizaila

Tan Sri Dato' Ir. Shahrizaila replied in the affirmative and added: "The internationally endorsed Dublin Principles of 1992 clearly states that 'water has an economic value in all its competing uses and should be recognised as economic goods'. Water as a resource is finite. But with urbanisation and the increase in global population, there is a mismatch between demand and supply which has resulted in water shortage in many areas. In Malaysia, the problems regarding water have long been recognised. Solutions are however slow in coming."

If one may recall, events in the recent past such as the huge floods that brought the economic activities to a halt in Kelantan, Terengganu, and Pahang in 2014, indicate that unplanned clearing of jungles can destroy the balance in ecology. The illegal dumping of used diesel oil by certain illegal plants in Rawang polluted the source of water intake of a major water treatment plant. As a consequence, some 500,000 people in Selangor and Kuala Lumpur had to suffer water rationing until the polluted river was cleared at great costs.

"Clearly, recent calamities associated with water seemed to suggest there's a huge change in the environment. Previous data used to calculate 100 years flood occurrence, is no longer valid," said IEM President Dato' Ir. Lim Chow Hock, who joined the debate.

While conceding that catchment development was the main contributor to changes in the magnitude of flood recurrence, Tan Sri Dato' Ir. Shahrizaila reiterated that such findings further reinforced the case for resource regulation at the river basin level, tackling issues and problems at source both from a qualitative and quantitative standpoint, and holding to account those parties responsible for abuses to the resource.

SHORT REFLECTION ON WATER AS A RESOURCE

Should water be viewed as a common pool resource (CPR) for public policy formulation?

If, indeed, water utilisation is a governance issue, as argued by Tan Sri Dato' Ir. Shahrizaila, the use and abuse of water may be regarded as a common pool resource (CPR) management challenge. The literature on CPRs had been on-going since the 1980s in the United States, led by Professor Elinor Ostrom, a co-Nobel Prize Winner of Economic Science in 2009 and allied researchers.

Just like air, forest, grazing ground for cattle and fisheries along sea coasts, they are natural CPRs subject to abuse. For example, to ensure the sustainability of fisheries in the coastal areas, there must be an enforcement mechanism on the rules for fishing, either by State-sanction or self-sanction. Simply put, CPRs are public goods that are readily abused since they belong to open access regime. In the same manner, the haze, which is hazardous to health, is a CPR challenge which requires solutions involving policy makers in ASEAN countries.

Closer home, man-made CPRs are the common areas or common properties of strata buildings. The stories of abuse of common areas or properties by parcel holders fill the pages of newspapers at regular intervals. If they are under-managed, they belong to open access regime where regulation is dysfunctional or absent.

As is evident from Tan Sri Dato' Ir. Shahrizaila's lecture, in the absence of a credible enforcement mechanism (such as a River Basin Authority), an open access river is open to abuse. The road to a solution will be arduous, however, since the communities using the river will have to adapt to new rules. Not everyone in the communities will accept change. Each time when a new rule is introduced, it threatens the interest of existing beneficiaries.

PROFESSOR ENGR. CHIN FUNG KEE

The Dinner to commemorate Tan Sri Professor Engr. Chin Fung Kee, started with organising chairman Ir. Dr Ooi Teik Aun delivering his welcome speech, followed by a short account of the life and major contributions of Professor Engr. Chin.

On the early education of Professor Engr. Chin, Ir. Dr Ooi said: "Having won the coveted Queen's Scholarship, Professor Engr. Chin graduated with First Class Honors in engineering from Queen's University in Belfast. He proceeded to complete his Masters in the same University while working as an assistant lecturer. Upon returning to Malaya in 1954, he served as an engineer with the Department of Irrigation and Drainage (DID) on the Kubang Pasu Irrigation Scheme.

"Professor Engr. Chin resumed his academic career in 1956 as a lecturer in the Department of Engineering under the Faculty of Science, University Malaya. Seeing the need of better engineering education, Professor Engr. Chin and a few other professors went to the then, Prime Minister Tunku Abdul Rahman for help. When the team left the Prime Minister's office, they were given a cheque for RM1.5 million to construct the new Faculty of Engineering".

Under his tenure, the Faculty of Engineering went from strength to strength. The courses were given full recognition by various British Institutions as well as the IEM and he was conferred Professor Emeritus in 1974.

On the research front, he devoted a lot of time and effort to the needs and problems faced by the country. He published more than 70 technical and research papers in international journals and wrote a book titled *The Penang Bridge - Planning, Design and Construction*.

Ir. Dr Ooi said: "The book gives a first-hand account of all the important aspects of the bridge and is a treasure to our national engineering heritage."

After leaving the Faculty of Engineering, Professor Engr. Chin was equally successful as a practicing engineer. His contributions to engineering were just too many to enumerate. Ir. Dr Ooi said Professor Engr. Chin was best remembered for the "Chin Method", the concept of inverse slope method for the prediction of pile ultimate bearing capacity, without testing the pile to failure in 1970.

Ir. Dr Ooi added: "As an independent consultant for the Komtar Building foundation problem in 1977, Professor Engr. Chin developed a method for diagnosing the pile condition in the ground. This method has been widely used by practising engineers." This method is now internationally known in the piling industry. ■

IEM DIARY OF EVENTS

Title: Talk on "Energy Efficient Cellular Base Stations based on the Characteristics of Malaysia's Solar Radiation Exposure"

12 November 2015

Organised by : Engineering Education Technical Division
 Time : 5.30 p.m. – 7.30 p.m.
 CPD/PDP : 2

Title: Two-Day Course on Asset Management Standards and Assessments

17 November 2015

Organised by : Oil, Gas and Mining Engineering Technical Division
 Time : 9.00 a.m. – 5.30 p.m.
 CPD/PDP : 13

Title: One-Day Seminar on Deep Excavation

19 November 2015

Organised by : Geotechnical Engineering Technical Division
 Time : 8.30 a.m. – 5.29 p.m.
 CPD/PDP : 7

Title: IIEC 2015 - "Safe, Smart and Innovative Development in Power Systems" (Tutorial Only) (Sime Darby Convention Centre, Kuala Lumpur)

30 November 2015

Organised by : Electrical Engineering Technical Division
 Time : 8.30 a.m. – 5.00 p.m.
 CPD/PDP : 0

Title: IIEC 2015 - "Safe, Smart and Innovative Development in Power Systems" (Tutorial and Conference) (Sime Darby Convention Centre, Kuala Lumpur)

30 November 2015 to 2 December 2015

Organised by : Electrical Engineering Technical Division
 Time : 8.30 a.m. – 4.30 p.m.
 CPD/PDP : 0

Title: IIEC 2015 - "Safe, Smart and Innovative Development in Power Systems" (Conference Only) (Sime Darby Convention Centre, Kuala Lumpur)

1 December 2015 to 2 December 2015

Organised by : Electrical Engineering Technical Division
 Time : 8.00 a.m. – 4.30 p.m.
 CPD/PDP : 0

Kindly note that the scheduled events below are subject to change. Please visit the IEM website at www.myiem.org for more information on the upcoming events.