

HKAES President's Report 2013-2014

During this 20th anniversary year, the Academy spent most of its efforts in enhancing the formal engagement with HKSAR government. Significant headway was made in implementing the project which contributes to building administration policy. This and other activities are reported below. The actions were initially proposed by my predecessor Prof. Joseph Lee after the 2013 Retreat.

Government Funded Public Policy Research (PPR)

The Central Policy Unit (CPU) recently adopted a new mode of operation of the Funding Scheme for Public Policy Research (PPR). After actively exploring several areas of PPR which HKAES is in the best position to assist, the Council agreed to submit the first proposal "Enhancing Policy on Building Maintenance: Solving the Residential Seepage Problem", and appointed Prof. CC Chan to prepare the second proposal on energy policy.

The first proposal was approved in June 2014. This is the first CPU funded project awarded to a non-teaching engineering institution. In this project, water seepage in residential buildings is used as the example to demonstrate a new approach to public policy. Long standing building maintenance issues of public concern are often overlain by social-technological problems. The solution of the underlying engineering deficiency requires the new approach of integrated application of engineering research and management.

The project commenced on 15th September 2014 and is scheduled to be completed on 14th September 2015. The estimated cost is HK\$737,150. As the Principal Investigator (PI), I have invited a multidisciplinary team including experienced retirees. The study outcome will include public education materials for eradicating common misconceptions about the source of seepage, improving the current practice to avoid invalid conclusion, and providing guidelines for building professionals to use a new method of direct determination of the source. As such, the project contributes to 3 areas of public policy: Building Administration, Innovation and Technology, and Active Aging.

The second proposal for application of CPU funding is under preparation. This proposed study "System Analysis for Energy Policy in Hong Kong " will focus on the framework of the energy policy and include a scientific comparison of energy sources in Hong Kong, China and other Asian countries. As the PI, Prof. CC Chan has invited a multidisciplinary team and plans to submit the application in early 2015.

Academy Funded Public Policy Study

The 2013 Council commissioned a collaborative research project with CITY U on Nuclear Energy, leveraging on Prof. Jian Lu's dual capacity as Vice President of CityU and Fellow of HKAES. As the PI Prof Lu refined the study objectives and started work in 2014. The study will clarify certain common misconceptions about nuclear power generation and aims to help open more options of the fuel mix for HK. The study will be completed in mid 2015. It is expected that the Clean Energy Task Force will use the study results to prepare an Academy position paper.

ICEST Conference and CAETS Council Meeting in June 2014

The President accepted the invitation of the President of Chinese Academy of Engineering (CAE) to attend the “International Conference on Engineering Science and Technology 2014 (ICEST)” on 2nd to 3rd June in Beijing and to attend the CAETS Council Meeting 2014 on 4th June as an observer. A delegation was formed, members including Prof. Joseph Lee, Dr Andrew Chan, Prof. Timothy W Tong, Prof. C C Chan, Prof. J M Ko, Prof. Jian Lu, Ir H S Kwong, Prof. Charles Ng and Prof. J G Teng.

During ICEST and CAETS meeting, the delegation held fruitful meetings with CAE and other academies including EURO-CASE (Association of all the Europeans Academies of Engineering and Technology), HAE, NAE, NATF and RAE. All agreed to collaborate with HKAES and to keep in close touch.

ICEST 2014 gave the delegation first hand feel of the current development of engineering in the Mainland as well as elsewhere in the world. Two points are remarkable. At the opening address, President of China Mr. Xi Jinping underlined the role of innovation and technology in the transformation of economic structure and the importance of its applications to national development. The message echos the strategy implicit in the 12th 5-year Plan of using urbanization and new industrialization as major forces to sustain the new wave of economic growth and as a new way of redistribution. Second, the conference included a parallel session on philosophy of engineering, which is purportedly the first of its kind. In China, engineering is not only a tool but has been developing as a way of thinking. The emerging tacit value system will continue to influence different walks of life in the process of social, economic and engineering development.

The above 2 points are useful reference for the implementation of the 1 country 2 systems principle. This most important feature affects all aspects of HK's development. A new philosophy and corresponding engineering contents have to be developed to support this new feature.

The unprecedented implementation of 1 Country 2 Systems in HK will inevitably cause contradictions in society including the engineering system. Their resolution provides the opportunity for innovation. The solution will have to be guided by a value system appropriate to the new philosophy. Analogous situations in history indicate that interaction between 2 systems will result in each system taking up useful features from the other. The common components of the 2 systems promote evolution of the 2 systems and sustain the circular process of innovation, cross-fertilization and evolution. In the short term, the common components may manifest as the complementarity of strength of Mainland and HK.

During the Beijing visit, CAE and HKAES agreed to co-organize a Joint Forum in 2015. With the title “CAE-HKAES Forum on Innovation and Technology Industry in Hong Kong and Pearl River Delta (PRD)”, the Forum aims to provide a platform to explore directions for the future development of industry in Hong Kong and the PRD through technology and innovations using the respective expertise and strengths of the two sides

To follow up the proposal, the Council accepted the kind offer of the Hong Kong Polytechnic University to underwrite the cost up to \$1M as the Host Organizer of the event. The Forum is planned to be a 1 ½-day event held on 13 – 14 April 2015 in Hotel ICON, Hong Kong. Chinese University of Hong Kong, City University of Hong Kong, Hong Kong University of Science and Technology and University of Hong Kong have agreed to be Sponsoring Organizations.

After the CAETS council meeting in Beijing, the Academy hosted a dinner meeting with EURO-CASE Secretary General Dr. Jacques LUKASIK on 5th June 2014 at the Hong Kong Jockey Club. There was a good exchange of views at the meeting and the President was invited to give a keynote presentation in the EURO-CASE's Annual Conference which was to be held on 3rd December 2014 with the theme "Evidence-based Policy Advice and Innovation Policy beyond Horizon 2020". Prof. Otto Lin kindly accepted the President's invitation to attend the Conference and give a keynote on behalf of HKAES.

Visit to HMO and MOST

Endorsed by the Council before the Beijing visit, the delegation paid a formal visit to the Hong Kong Macao Office of the State Council (HMO) and the Ministry of Science and Technology (MOST) to develop ties. The visit was very useful and successful. HMO and MOST both agreed to establish regular contact with HKAES and supported our joint activities with CAE which aim to contribute to public policies of HK and the national government with the expertise of the respective organizations.

Website Improvement Initiative

The 20th Annual General Meeting held on 16th December 2013 endorsed Ir T C Chew's proposal of enhancing the Academy Website to raise the public profile of the Academy. A team was formed in early 2014. Taking account of input by Council and Fellows, the new Website was launched on 1st July 2014 with more information available for public viewing.

New Fellows, Council meetings and Academy Dinners

Seven new Fellows were elected at the 20th AGM, including 2 practicing engineers. The current roll of membership is 61.

The Council met 4 times during the year. Academy Dinners were held after the last 3 Council meetings, each attended by over 20 Fellows.

This is a full year of my presidency. I would like to take the opportunity to express my appreciation to my colleagues in the Council, Committees and project teams for their cooperation, support and valuable work which culminated in this year's fruitful results.

Submitted by

Prof. Y L Choi

President

Hong Kong Academy of Engineering Sciences

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