

HKAES President's Report 2016-2017

It has been a busy year for my presidency of the Academy and I have pleasure in reporting the following:-

1) New Fellows:

At the 23rd Annual General Meeting held on 8th December 2016, five new Fellows were elected, bringing the register of HKAES Fellows to 70. They are:

1. Prof. Hill, David John
2. Prof. Lau, Kei May
3. Prof. Leung, Wallace Woon-Fong
4. Prof. Tang, Ching W.
5. Prof. Yeung, Raymond W.

2) Four Council Meetings were held during the session:

87th Council Meeting on 16th January 2017

88th Council Meeting on 28th April 2017

89th Council Meeting on 20th July 2017

90th Council Meeting on 31st October 2017

3) Three Academy Dinners were held during the session:

Academy Dinner	Guest of Honour
1 st Academy Dinner on 28 th April 2017	Ir Prof. Daniel M. CHENG, Managing Director, Dunwell Enviro-Tech (Holdings) Ltd; Chairman, Federation of Hong Kong Industries; President, Hong Kong Environmental Industry Association
2 nd Academy Dinner on 20 th July 2017	No external guests were invited but HKAES Fellows Ir James Blake and Ir Paul Poon took the opportunity to share the design of

	the Kai Tak Sports Park Project and the initiatives of the CLP Power Academy respectively.
3 rd Academy Dinner on 31 st October 2017	Prof. Tieniu Tan, Vice Minister, Liaison Office of the Central People's Government in the HK S.A.R.; Director, Centre for Research on Intelligent Perception and Computing, CAS Institute of Automation (CASIA)

Each of the Academy Dinners was held after a Council Meeting and was well attended by HKAES Fellows, who also took the opportunity to engage in active dialogues with the Guest of Honour.

4) The Twelfth Guanghua Engineering Science and Technology Award

HKAES was once again invited by the Chinese Academy of Engineering (CAE) to be the organization in Hong Kong SAR for the nomination of candidates for the captioned award. A Nomination Committee was formed with Prof. Timothy Tong as the Chairman and with the following members: Dr Andrew Chan, Prof. CC Chan, Prof. HS Kwok, Prof. CF Lee, Prof. Victor Li, Prof. Mai Yiu-Wing, Dr Otto Poon, Prof. WS Wong, Prof. Raymond Yeung; Prof. JG Teng served as the Secretary.

Nine universities/organizations were invited to submit their nominations by 25th September 2017. We received 8 nominations and selected the following 6 candidates for submission to CAE: Prof. Chao LU, Prof. Jian LU, Prof. Charles NG, Prof. Xiaoming TAO, Prof. Ed X. WU and Prof. You-lin XU. We sent the nominations to CAE by Fedex together with an email with all soft copies on 26th October 2017. The result will be announced by CAE in May 2018.

5) Regular Breakfast Meetings with FHKI, ASHK and HKIS

Three breakfast meetings between HKAES, ASHK (The Academy of Sciences of Hong Kong), HKIS (Hong Kong Institution of Science) and the Federation of Hong Kong Industries (FHKI) were held on 14th February at HKUST, 14th June at Hotel ICON and 21st

November 2017 at the Jockey Club, to discuss issues of common interest and potential collaboration among the four parties. Mr Nick Yang, Secretary for Innovation and Technology of the HKSAR also joined the three breakfast meetings as before.

The meeting in February was hosted by HKIS. Dr Andrew Chan, Prof. W S Wong and Prof. J M Ko attended the meeting on behalf of HKAES. This meeting was mainly about the organization of InnoCarnival 2017 in October. (For further details of this event, please refer to point 9 of this report)

The meeting in June was hosted by HKAES. Dr Andrew Chan, Prof. Joseph Lee and Prof. JG Teng attended the meeting on behalf of HKAES. Mr Nick Yang updated on what he and the government had done in the last few months on promoting Innovation and Technology in Hong Kong, in particular in areas related to the “One Belt, One Road” initiative of the Central Government. HKAES also took the opportunity to report what we had done in early 2017.

The meeting in November was hosted by ASHK. Dr Andrew Chan, Prof JG Teng and Prof W S Wong attended on behalf of HKAES. Activities of the participating parties were reported and reviewed.

6) CAE-HKAES Collaborative Project on Policy Research

As part of the CAE-HKAES Joint Policy Study on Integrative Development of Innovation and Technology in Hong Kong and the Pearl River Delta, the CAE-HKAES Forum was organized on 24th May 2017 at the Headquarters of the HKSAR government, mainly to disseminate the findings. A CAE delegation led by Prof. GAN Yong, Former Vice President of CAE, visited HKSAR from 22nd-25th May 2017 to attend the Forum.

Details of the Forum and its programme can be found on the HKAES website. The Forum was addressed by the Financial Secretary of HKSAR Government, Mr Paul M P Chan and attracted more than 120 participants from various sectors of Hong Kong. A Shenzhen government delegation also attended the Forum. It was noted that the Forum received very positive responses.

As a result of the CAE-HKAES Collaborative Project on Policy Research, HKAES held fruitful discussions with the CAE delegation, leading to the submission of a “院士建議” to the Central Government in June 2017. Essentially, it was an advocacy to elevate the I&T development in the Bay Area to a national strategising level (with the corresponding benefits to Hong Kong).

Following on from this collaboration with CAE, HKAES was also invited to send Fellows to attend a forum on 8th September 2017 organized by 广东院士联谊会. Eleven members

of HKAES attended the forum. All members shared views on the development of the Guangdong-Hong Kong–Macau Greater Bay Area. It was an important event and the dinner was hosted by the mayor of Shenzhen.

This forum was held against the background of the Memorandum of Understanding on jointly developing the Lok Ma Chau Loop (Loop) into an Innovation and Technology Park signed between the HKSAR Government and the Shenzhen Municipal Government. This long-term project will offer excellent opportunities for development of science and technology innovation.

Our Project Co-ordinator, Prof. Joseph Lee, planned to complete the report by the end of the year for printing in English. A Chinese version would be produced later.

7) InnoTech Expo 2017

HKAES was once again invited by Our Hong Kong Foundation to be one of a Strategic Co-organizers for the InnoTech Expo 2017 (創科博覽 2017). It was held from 24th September to 2nd October 2017 at the Hong Kong Convention and Exhibition Centre.

The HKAES President was invited to serve on the Advisory Group. The event showcased China's significant technology and innovation achievements covering periods from ancient (5,000 years ago) to present times in three major areas, namely 天、訊、海. The event also formed part of the 20th anniversary celebrations of the return of sovereignty of Hong Kong to China as well as the anniversary of the 68th National Day of the People's Republic of China.

The President also chaired the 天、訊、海—香港科技羣英匯, and our Fellow Prof. KL Yung gave a presentation. Most of the work was done by the Ministry of Science and Technology who put in a lot of effort.

8) CAE-NAE-RAE Global Grand Challenges Summit 2017 Student Day

The CAE-NAE-RAE Global Grand Challenges Summit 2017 was held on 18-20th July 2017 at George Washington University. The aim of this Summit was to inspire the next generation of engineers, policymakers, and the public to creatively address some of the most pressing issues and promising innovations of the time: the Grand Challenges for Engineering—including virtual reality, artificial intelligence, health care, climate change, and education of future engineers who will take on such challenges.

A local competition was held on 11th March 2017 in Hong Kong to select the best team to be one of the five teams from China to join the Summit in Washington. The panel of judges unanimously decided that The Hong Kong University of Science and Technology had the best team and would receive HK\$100,000 from HKAES as a cash prize.

The other four teams (City University, The Chinese University of Hong Kong, Hong Kong Polytechnic University and The University of Hong Kong) were given equal rankings in the local competition. Except the team from PolyU, the other three teams submitted a research poster to the Summit's Poster Session, each with one student representative attending the Washington event.

Prof. CC Chan attended the Summit on behalf of HKAES. This year HK team did not win any award.

9) InnoCarnival 2017

InnoCarnival 2017 was funded and organized by the Innovation and Technology Commission. Prof. Tony Chan chaired a committee for participation and with members drawn from ASHK, HKAES and HKIS. This Carnival was successfully held on 21st-29th October 2017 at the Hong Kong Science Park where HKAES had a booth and HKAES fellows were invited to attend the event and forum.

Dr Alex Chan and Prof. Wing Shing Wong worked on identifying projects for display. Six projects were displayed. Dr YL Choi contributed a quotation which was displayed at the venue. Many projects on display in other booths were also engineering projects. Along with presidents of ASHK and HKIS, the President of HKAES, Dr Andrew Chan gave a talk to share his career experience. Many families visited the exhibition.

A distinct feature of the Exhibition is to offer pro-bono mentorship to around 100 students who are committed to taking science and technology as their career. A mentorship programme for 2-3 years is being set up. Each of the three co-organisers, i.e. ASHK, HKAES and HKIS shall provide around 10 mentors. 12 HKAES fellows indicated their willingness to join this Mentorship Program in late July. Each mentor will be assigned several mentees (up to 4), and each mentor shall meet their mentees at least once a year. This Mentorship programme is extremely well received and apparently oversubscribed by the schools.

10) Sir S Y Chung's Centennial Birthday

The President, Dr Alex Chan, Professors Joseph Lee and J M Ko met with Sir S Y Chung, one of the Academy's founders over lunch, and presented him with a plaque to commemorate his 100th Birthday. A congratulatory video by the President was also played at Sir SY's 100th Birthday Dinner on 3rd November 2017.

Concluding Remarks

In the past year, with strong support from HKAES members, we have made encouraging progress in enhancing the position of HKAES in the local community through participating in, and contributing to, a series of events aimed at promoting science and technology development in Hong Kong. This and our own activities represent a step forward in establishing HKAES' top-level advocacy and advisory position both with the government and the public.

The joint study with CAE on policies, which could help catapult Hong Kong toward greater success in innovation and technology, is now near completion, with many of our Fellows having contributed to its success. We look forward to a report with lasting impact.

A few topics concerning the future development of HKAES have been noted in the last Council Meeting for discussion sometime in the near future: (a) need for manpower support and resources for the Academy; (b) secretariat office accommodation in the Science Park; and (c) possible change of name of HKAES to "Hong Kong Academy of Engineering (HKAE)". Fellows are encouraged to give more thoughts on these important issues, and I consider it important to have a well thought through written proposal on each item for members' deliberation in a retreat in early 2018.

By the end of 2017, I would have served as the President of HKAES for two years. I have considered most carefully and consulted with a number of you and decided that it is appropriate for me to step down at the end of the year. The reason for my decision is as follows:

1. I believe the development of our Academy has arrived at a stage where its status and recognition in the community must be lifted to a higher level rapidly and this will need higher profile and stronger leadership than I, a retired practitioner, could offer.
2. Looking forward, the Academy's standing in the community will depend a lot on our visible and substantive contribution to several topics, chief amongst which is the development of innovation and technology in Hong Kong. In this regard, it is essential that the Academy is led

and represented by someone from the academia, well versed in research frontiers and activities in our universities.

3. Personally, recent medical check-up indicated a couple of issues which will require some further investigations and follow-up actions. This will create demand of time and attention from me.

4. I have discussed on several occasions with Senior Vice President, Professor Timothy Tong, who is clearly ideal for the mission ahead, and he has kindly consented to my proposal that he takes over the presidency from 2018 if approval at our AGM is received. The proposal has been supported by the Council in the most recent council meeting.

The Academy is what our Fellows are. The recognition we deserve and the impact we can make are dependent on the participation and contribution from our Fellows. We have been fortunate to be able to count on the tremendous support from Prof JG Teng, the Honorary Secretary, and his team, and Ir Otto Poon, Honorary Treasurer, and his team. Similar gratitude must also go to other outgoing council members for their contributions.

Dr Andrew Chan Ka Ching
President
Hong Kong Academy of Engineering Sciences
December 2017