

Final Update on CAE-NAE-RAE Grand Challenges Summit – Student Competition

By Joseph Hun-wei Lee 18 October 2015

- 1) The Chinese Academy of Engineering (CAE) organized a Global Grand Challenges Summit (GGCS) jointly with the US National Academy of Engineering (NAE) and the Royal Academy of Engineering (RAE) in Beijing during 15-16 September, 2015.
- 2) Before the GGCS summit, on 13 September, 2015, a student competition day was organized to encourage students to become the next generation of leaders to address grand challenges. Each country selected 4-5 student teams (China, USA, UK). Each team of 6 undergraduate (UG) students had to present a proposed idea (in English) to address one of the themes of the NAE grand challenges: sustainability, infrastructure, energy, health, and joy of living. Each team could select from a number of topics; the proposed ideas must be accompanied by a business plan. Each team was given 15 minutes for the oral presentation (Q&A included); 7 minutes presentation and 8 minutes Q&A.
- 3) From China there were 5 student teams: Tsinghua University, Peking University, Zhejiang University, Shanghai JiaoTong University, and a “Hong Kong Universities Alliance” team organized by HKAES at the invitation of CAE. All return air travel and accommodation of the six students and two team leaders were covered by CAE. The chosen topic was related to urban infrastructure and sustainability – “the use of drones for external building defect inspection.” The team leveraged our learnings from HK as one of the highest density cities in the world as we strive to deploy practical smart cities technologies for the benefit of our citizens as well as connect as an international hub between China and the rest of the world.
- 4) The HK Alliance team represented three universities (CUHK, HKU, HKUST), and was led by Dr. Michael Sung and Donny Siu of the HKUST Entrepreneurship Center. Other advisors include Prof Po Chi Wu (veteran entrepreneurship expert), HKAES Senior VP Dr. Andrew Chan, and HKAES Fellows Prof HS Kwok and Prof Charles Ng. On September 5, 2015 a lunch was hosted by HKAES for the students. The guest of honor was Mr Nick Yang, Chairman of the Hong Kong Steering Committee on Innovation and Technology. The students gave a mock presentation and received many useful feedback from Mr Yang and HKAES Fellows.
- 5) The team performed very well in the contest and came third among 14 highly competitive teams from three countries. The results were: (1) First prize: Zhejiang University; (ii) Second Prize: Shanghai Jiaotong University and University of Southern California; and (iii) Third Prize: HK Alliance, MIT, Duke (see attached photo). This is quite an achievement considering the short span of time available for forming and training the student team.

第二届全球重大挑战峰会 CAE/NAE/RAE
Global Grand Challenges Summit, September 15-16, 2015, Beijing
Student Competition day, September 13, 2015

