# NEWSLETTER ISSUE 2018



H.K.U. Engineering Alumni Association

香港大學工程舊生會



Executive Committee Session 2017 - 18

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Dear Engineering Alumni and Friends,

It has been my great honour and pleasure to serve as President of the H.K.U. Engineering Alumni Association (HKUEAA) Session 2017-2018. I have enjoyed working with the enthusiastic, passionate and talented team on its Executive Committee, and it has been a wonderful year to be associated with our alumni and students. Let me just highlight some of our major achievements in the year.

On 31 December 2017, HKUEAA held its 42nd HKUEAA Annual Dinner and Dance at Kowloon Shangri-La, Hong Kong with over 400 alumni and guests attending. The Oscar themed ADD was a huge success and many participants had a lot of fun at this countdown party. It was our honour to have Ir Chan Fan, Frank, JP (the Secretary for Transport and Housing) to be the guest of honour at this grand occasion. We are also grateful for the presence of Ir Wai Chi Sing, GBS, JP (Managing Director of the Urban Renewal Authority), Ir Liu Chun San, JP (the Under Secretary for Development), Ir Ma Siu Cheung, GBS, JP (the Principal Consultant of HKSTP), and Professor Norman C. Tien (the Dean of Faculty of Engineering, HKU). Aside from having reunion with alumni, we were pleased to celebrate the last moment of 2017 and welcome 2018 with all other attending friends at this gala dinner! It was a wonderful evening which will be remembered for a long time.

We established the new Advisor System this year as a major initiative to foster a stronger and close-bonding alumni network. Distinguished fellow alumni of HKU Engineering in both private and public sectors are invited to serve as HKUEAA Advisors in respective organizations to strengthen the connection between HKUEAA and the organizations, as well as to provide advice to Executive Committee of HKUEAA on an ad hoc basis. In addition, we also established a Class Representative System to serve similar purpose.

On 13 December 2017, we hosted the HKUEAA Reception cum Advisor Appointment Ceremony at our alma mater to officially appoint 27 Advisors and as of end August 2018, a total of 30 Advisors were appointed. On 12 April 2018, we held the HKUEAA Reception cum Class Representative Appointment Ceremony at the historic Hung Hing Ying Building of the University of Hong Kong and appointed around 40 class representatives from different graduation years and engineering disciplines.

We also signed the Memorandum of Understanding (MOU) with the Faculty of Engineering to start the important collaboration between the engineering alumni community and our alma mate, which include our donation of a total of over HK\$660,000 over three years to the "HKUEAA Experiential Learning Fund" to support the Faculty in offering equipment and opportunities for students to explore innovative technologies outside of the classroom including the facilities and activities at the newly established Innovation Wing in the Faculty of Engineering.

HKUEAA is always committed to contributing to the development of the next generation. We continued with our yearly programme for students – the Graduate Mentor Scheme (GMS) which is jointly organised by HKUEAA and Engineering Society, HKUSU (ENS, HKUSU). This is one of the most important annual events where we connect students with our alumni. Past experience demonstrated that the privileged mentees have been enlightened and inspired by our mentors through their guidance. They have become better equipped to face the challenges ahead because of the GMS. This year, around 60 mentors joined the scheme with over 100 engineering students selected as mentees. We also organized activities including wine-tasting workshop and poolside BBQ Party enabling the mentors and mentees to get along and share their personal experience. To express our appreciation of mentors' efforts on the GMS, we sponsored a casual dinner for our mentors, joined with the Executive Committee members.

Other events and activities we organised included seminars, career talks, technical visits, hiking, study tour, etc., to suit the different interests of alumni and students.

To enhance students' career and personal development, we have organized a job shadowing programme with Towngas in March 2017 and 10 engineering undergraduates attended the programme. They attended different business functions of the company including various site visits. In addition, each student was assigned to a mentor for two days. The mentors were young and promising professional engineers, and the students gained both career and life advice from them. All students expressed satisfaction with the various activities. They especially treasured the networking opportunities both with the job shadowing mentorship, and with their peers. We would continue to collaborate with different organizations to nurture students becoming engineers.

Furthermore, we organized two Distinguished Talk: "re-Engineering URA" and "Land Creation – Topside Development of Kwai Tsing Container Terminals" on 9th November 2017 and 12 June 2018 respectively with our past president Ir Wai Chi Sing, Managing Director of the Urban Renewal Authority (URA) as the distinguished guests of first talk, and our Founding and Honorary Life President Ir Dr. Joseph Chow and our Founding Secretary and Special Advisor Ir Professor CK Mak as the distinguished guests of the second talk. Ir Wai shared his view in reengineering approach with concerted effort by the Government, URA, market players and community stakeholders for the urban renewal challenges, while Ir Chow and Ir Mak shared their idea of 1-Land-2-Uses, putting private and public residential developments as well as community and commercial buildings on top of a podium covering the container storage yards. The alumni from various professional fields met and exchanged views. The industry gathering received enthusiastic response and attendance.

We arranged an one-day short China Visits to Pearl River Delta, visiting the companies with rapid growth in revenue in recent years including Huawei and Tencent. The visit was a great success and the participants were able to learn and inquire local experts about the state of Mainland China's leading engineering companies and technologies, in particular in the field of information technology.

Coming up with new ideas is essential to success. With this in mind, this year our overseas study tour travelled to Germany, the well-known industrialized country for their advancement in innovation, boasting leading universities and research institutes alongside major engineering, IT and Industry 4.0. The 9-day tour, including visits to Siemens Headquarters, IBM Watson IoT Centre, Unternehmer TUM - the Munich-based Start-up incubator founded by Technical University of Munich, MakerSpace, Europe's largest publicly accessible high-tech workshop, BMW Museum, etc., allowed participants to learn about the new advancements Germany are making in different fields, such as Internet of Things(IoT), Artificial Intelligence (A.I.), Power-to-Gas system, geothermal energy, adoption of Industry 4.0 in automobile manufactory, etc. It was an invaluable journey that participants also explored the Germany heritages and enrich their cultural knowledge. Participants would share their insights and learnings in the upcoming AGM, as part of their development through the study tour.

In addition, we organised the Football Fun Day at HKU Stanley Ho Sports Centre Complex Fitness Centres on 21 April 2018. HKU Engineering Alumni, graduates and students were invited to form 15 teams to participate in the 7-a-side football tournament. Positive responses were received from over 200 participants including alumni, students, friends and family members. This was a great opportunity for us to get together.

Throughout the past four decades, our Association has built strong ties with the Faculty and the University. We need this continuous support so that we can do more for the students, the alumni and our Association.

The strength of the HKUEAA comes from our members' connection to each other and with the University and the industry. I take pride in announcing that over the past year we exceeded 1,330 members. The stronger our ties are, the stronger the networking platform we can build and the more value-adding events and activities we can organize for the well-being of the HKU Engineering students and alumni. We are very grateful to our sponsors and donors who have year-on-year supported our work and development unfailingly.

Looking ahead, I trust our HKU engineering community will continue to grow and contribute to the community and University in a significant way. My heartfelt appreciation must go to all members of the Executive Committee for their unfailing support and invaluable contributions. I wish HKUEAA every success in its future endeavours.

Our 44<sup>th</sup> AGM will be held on 28<sup>th</sup> September 2018. I look forward to seeing you there!

Ir KWAN King Fai, Alex 關景輝工程師 President

H.K.U. Engineering Alumni Association Session 2017-2018



### **Messages from Executive Committee**

Mr. Vincent C H LAU Ex-co Member, Student Affairs

All started from the Sydney Study Tour 2013. Hoping to contribute to HKU, I joined Student Affairs Sub-committee of HKUEAA after my graduation. This year was a great success to Student Affairs. With the help from various Chairpersons and voluntary helpers, we have successfully organized 18 events including mentor-mentee gatherings, various technical visits and career talks, mock interview workshop, job shadowing program, Mainland visit, Germany Study Tour, etc. It is our faith that our engineering students can broaden their horizons, both engineering and global vision, through these activities. I would like to take this opportunity to thank the President Ir. Alex KWAN, the Vice-Presidents and other Ex-co Members for their endless support and precious advice. It is worthwhile serving HKUEAA to promote engineering and foster the future development of our engineering fellows, as well as to build the network amongst students and alumni.

I would also like to express my deepest gratitude to all members of Student Affairs for their dedicated efforts.



#### **42nd Annual Dinner and Dance (31 December 2017)**

The 42nd Annual Dinner and Dance (ADD) of HKUEAA took place on 31 December 2017 at Kowloon Shangri-La, Hong Kong with over 400 alumni, friends and students. The Oscar themed ADD was a huge success and many participants had a lot of fun at this countdown party. Aside from having reunion with alumni, we were pleased to celebrate the last moment of 2017 and welcome 2018 with all other attending friends at this gala dinner!

It was our honour to have Ir Chan Fan, Frank, JP (the Secretary for Transport and Housing) to be the guest of honour at this grand occasion. We are also grateful for the presence of Ir Wai Chi Sing, GBS, JP (Managing Director of the Urban Renewal Authority), Ir Liu Chun San, JP (the Under Secretary for Development), Ir Ma Siu Cheung, GBS, JP (the Principal Consultant of HKSTP), and Professor Norman C. Tien (the Dean of Faculty of Engineering, HKU).









The opening speeches given by Ir Kwan King Fai, Alex (the President of HKUEAA), Ir Luk Wai Hung, JP (The Chairman of Event Organising Committee), Ir Chan Fan, Frank, JP and Professor Tien marked the fabulous start of ADD. This year, some new entertainment elements were added to the event, such as the Awards for the Best Costume, the Best Couple and the Best Posture, Facebook Live and the Oscars Bingo. Participants enjoyed the games and performances. Some students dressed up as super heroes for photo shooting and many others loved their fancy costumes so much! All these new elements made the ADD more amazing and memorable.

We would like to take this opportunity to express our heartfelt gratitude to the old and new friends for their enthusiastic participation, to sponsors for their generous donation, and to the volunteers for their dedicated contributions to make the event happened. Let's look forward to next year's ADD and see you there!

#### **Graduate Mentor Scheme**

HKUEAA has launched the "Graduate Mentor Scheme (GMS)" since 2000. It is a mentorship programme opened for HKU engineering students and fresh graduates. GMS serves as a platform, allowing knowledge transfer through inheritance. It also strengthens the bonding among HKU alumni, engineers and students.

With HKUEAA' extensive network of HKU engineering alumni and friends, we gather a wealth of renowned and socially experienced mentors from all walks of life. Mentors act as role models and share their professional knowledge and life experiences with mentees. With mentors' guidance and support, mentees could excel and improve his or her abilities and skills. In all these years, the programme successfully expands students' social network, gain confidence and enhances their career and personal growths.



#### **Mentor-Mentee Gathering – Wine-tasting Workshop (7 October 2017)**

We successfully held a wine appreciation workshop on 7 October 2017 in Vinex Wine Academy. It was aimed at facilitating communication between alumni and students while learning the wine tasting basic techniques.

Around 20 members were in attendance. Participants were given different types of wine to know and develop wine palate through looking, smelling, tasting and thinking processes. The workshop facilitator also taught us a couple of wine and food matching examples which could enhance the dining experience.

At the end of the workshop, all participants were able to appreciate the art of wine tasting as they enjoyed themselves socially without getting drunk. It was indeed an excellent setting to make new friends while rekindling the old friendships. Cheers!





GMS Inauguration Ceremony 2018 (24 March 2018)



The remarkable Inauguration Ceremony of HKUEAA GMS was launched on 24 March 2018. With an inspiring opening speech delivered by Ir SS YUEN (Vice-President of HKUEAA, Student Affairs) and Mr. Vincent PUN Fan (Chairperson, ENS, HKUSU), they shared their views and expectation on the GMS 2018. We were also honoured by the presence of Ms Janet CHUNG, Director (Alumni Affairs) of Development & Alumni Affairs Office, Ir CHAN Wing Kin, Alfred BBS (Managing Director of The Hong Kong and China Gas Company Limited), Ir POON Wai Yin, Paul (Vice Chancellor of CLP Power Academy), Ir LUK Wai Hung (Assistant Director, Water Supplies Department) and many alumni and friends. This year, we have over 60 mentors and over 100 pairs of mentor and mentee have been formed. Distinguished engineers such as Ir Alex KWAN, (Executive Director, Engineering and Technology, Hong Kong Airport Authority) and Ir LAI Hon Chung, Harry, JP (Deputy Director, Electrical and Mechanical Services Department) also joined the GMS this year, passing on knowledge and experience to our engineering students. This remarkable programme can never be a success without our helpful alumni's continuing support and effort.

After the ceremony, participants enthusiastically joined the ice-breaking tea gathering organized at Postgraduate Hub in HKU Graduate House. All mentors and mentees had a fruitful and enjoyable afternoon. Past mentees came back to express their gratitude to GMS and mentors. They shared their experiences and gave tips in developing a relationship of trust with mentors. Students surely had gained a lot in this precious moment. The event was successfully held and ended with joy.



# Sharing on the 7 Habits by a HKU Engineering Alumni (31 August 2017)

The talk "Sharing on the 7 Habits Book" was successfully held on 31 August. HKUEAA has honorably invited Mr. Charles L. C. HO (HR Training & Development professional of a public utility company) to be the speaker and he shared how we can see, think and act differently with effective principles. As a result, effective habits can be built, which lead to highly effective individuals and leaders.







The responses and feedback from the participants were highly positive. They were inspired by the speaker and his case sharing. And these insights would be useful to enrich their personal and professional lives.

We would like to thank Charles for making this event a great success!

Technical Visit to Liantang/Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure Works (23 September 2017)

Technical Visit to Liantang/Heung Yuen Wai Boundary Control Point (BCP) and Associated Works was successfully held on 23 September 2017. The resident site staff first gave the 16 participants a comprehensive introduction about the scope of the project, the construction method of the Lung Shan Tunnel, the main section of the connecting road to the new BCP. During the guided tour, the participants visited the Tunnel Boring Machine (TBM) section between Loi Tung and Lau Shui Heung.

To tackle the challenges of excavating in a geological area with multiple faults and mixed ground conditions, the project team adopted earth pressure balanced TBM with a diameter of 14.1 metres, currently the biggest earth pressure balanced TBM in Hong Kong. Participants showed interest in real-time cutter disc wear measurement which could enhance the cutterhead maintenance works during the intervention times, thus significantly enhancing the safety and efficiency of works

We would like to express our greatest gratitude to the Civil Engineering and Development Department and the project team for supporting the event!



#### Career Expo 2017/18 – Pathfinder(21 October 2017)

Career Expo-Pathfinder was successfully held on 21 October 2017 with 24 students participating in the event. Pathfinder was co-organized by Engineering Society, HKUSU, Faculty of Engineering and H.K.U. Engineering Alumni Association, aiming at providing career insights to students through the sharing from guest speakers and the interaction among the guests and a small group of students of year 2 or above.

Ir. LEE Ping Kuen, JP, Ir. Victor Hon NG, Ir. Raymond SZE, Ms. Mandy LAI, Dr. Paddy CHAN and Ms. Katie MAK were invited as the guest speakers for 6 different engineering disciplines, including Civil Engineering, Computer Science, Electrical and Electronic Engineering, Industrial Engineering, Mechanical Engineering and Medical Engineering. Each speaker conducted a 20-minute sharing about their career field. A 15-minute break with drinks was provided to offer participants a chance to interact freely with the guests to learn and acquire valuable advice from our guests.







#### **Mock Interview Workshop (21 October 2017)**

It was a workshop with the purpose of enhancing the competitiveness of HKU engineering students and equipping them with hands-on skills in job interviews.

A talk about the skills for CV writing and interviews was conducted by a Human Resource professional. After that, 25 final-year students were assigned into five groups for the mock interview practice. Students expressed their thankfulness about the workshop and the valuable advice from the experienced interviewers in the industry. We believed that our students would have better preparation and performance in the real job interviews.





#### **Technical Visit to Lamma Power Station (18 November 2017)**

Visit to the Lamma Power Station was successfully held on 18 November 2017 to understand the operations and future development plans of Lamma Power Station.

A talk about the facilities in the power station and electricity distribution facilities in Hong Kong Island was delivered. Subsequently, the participants visited the generator sets, solar energy system and coalfield. All the participants were enthusiastic about the facilities and were eager to learn more from the representative of HK Electric.





Technical Visit to Jockey Club Museum of Climate Change (MoCC) (23 December 2017)

A technical visit to guided-tour of the Jockey Club Museum of Climate Change (MoCC) + an eco-tour (賽馬會氣候變化博物館 x 生態行) at the Chinese University of Hong Kong was organized on 23 December 2017.

The MoCC showcases valuable specimens, pictures, interactive simulators and multimedia information on global warming and climate change to arouse public awareness of the severe impact on individuals and the world. In the MoCC, students and alumni from HKU enjoyed a presentation related to the effect of climate.

After the visit to MoCC, an eco-tour was conducted by students from CUHK. The function and values of trees in Lake Ad Excellentiam were introduced during the eco-tour.



Technical Visit to Hong Kong Observatory, Tsim Sha Tsui (6 January 2018)

On 6 January 2018, HKUEAA organized a joint technical visit with HKIE Student Chapter to the Hong Kong Observatory (HKO).

20 HKU alumni and students joined the visit to understand the routine works of HKO. The HKO staff arranged a talk on the tropical cyclone weather and forecasting to us.

After the talk, we had a mini tour to Central Forecasting office and TV studio to experience the feeling of being a weather reporter. Furthermore, a minitour to the meteorological garden was arranged to understand the wind and temperature measuring equipment.





# Technical Visit to Happy Valley Underground Stormwater Storage Scheme(24 February 2018)

The event was successfully held on 24 February 2018 with over 20 students and alumni. With the presentation, illustration and site walk in storage tank, students know more about the background, design and operation of the scheme.

In general, the scheme included the construction of an underground stormwater storage tank. With the implementation of water harvesting systems, the reclaimed water would be used for on-site irrigation and for toilet flushing.

The award gaining project also shows the power of engineering from its sustainable design and public engagement.



#### Job Shadowing Program — Towngas (6-8 March 2018)

Since 2017, HKUEAA has co-organized a job shadowing programme with engineering companies to allow students to experience daily duties of an engineer. This year, our partner was The Hong Kong and China Gas Company Limited (Towngas).

On the 6th to 8th of March, 10 students participated in an exciting and bountiful programme that brought them to different business functions of the company.

In addition to the various site visits, each student was assigned to a mentor for two days. The mentors were young and promising professional engineers, and the students gained both career and life advice from them.

Overall the programme was a great success, and students all expressed satisfaction with the various activities. They especially treasured the networking opportunities both with the job shadowing mentorship, and with their peers.

We will strive to continue this annual activity and will look for more activities within our engineering alumni network to assist students and members in their career development.







#### Mentors' Night (23 January 2018)

To express our appreciation to mentors' effort on the GMS, a causal dinner was held at Hong Kong Football Club, Happy Valley on 23 January 2018. Mentors and Ex-co members shared experience and had a joyful dinner.



# Career Expo 2017/18 – Career Talk on Job Searching Skills (17 March 2018)

The second part of Career Expo 2017/2018 was the career talk about job searching skills, which took place on 17 March 2018. The talk aimed at enhancing the job searching skills of our engineering students for their competiveness, as well as resolving their confusions and enquires about job searching.

It was our great pleasure to have Miss Pearl CHAN (Vice-President of Group Human Resources of Hong Kong Telecom) and her team to share the useful and valuable tips on preparation for job searching, interview, resumé and cover letter with our students.





#### Mainland Visit to Huawei and Tencent (31 January 2018)

The mainland visit was successfully held on 31 January 2018. The first stop of the visit was Huawei – Industry Solutions Executive Briefing Centre. A tour for the latest technology and the corresponding enterprise solutions in the center was provided to the participants, which included smart city architecture, 3rd generation command center and face recognition and trajectory tracking system.

We had lunch together with Huawei's representative and they told us more about the latest development of Huawei as well as the industry in China.

In the afternoon, the participants visited the headquarter of Tencent. Firstly, a tour was provided in the exhibition center with the brief of company's background, history of development and latest technology.

After that, a talk for Artificial Intelligence (AI) technology was provided to the participants, which included face recognition, speech recognition or natural language processing. For example, AI technology was utilized on insurance claim in animal husbandry to reduce the time and resource in claim process.

In addition, a second talk for Tencent payment architecture, Wechat Pay that everyone may use every day was introduced to participants.

The participants of mainland visit have leant the latest technology from visiting Huawei and Tencent.



#### **Enginnovate'18**

On the 17th of March, the final round of the "Enginnovate" competition organized by the H.K.U.E.A.A. Education foundation was held at the iDendron community space at Knowles Building HKU. The Competition brought together 13 teams of undergraduates and postgraduates students together to develop and present their innovative projects and ideas, on a diverse range of topics from self healing materials to automatic medical dispensaries, in front of an esteemed panel of judges.

Before proceeding to the final round, teams refined their ideas and projects with the help of their mentors arranged by HKUEAA. These mentors are expertises working in Hong Kong on the respective industries of the students' projects. After months of hard work, teams were finally ready to pitch their projects in an intense competition setting.

After an exciting round of presentations on event day, the scores were tallied up and the winners were announced. The first prize was won by Nitin Pendkar's team who developed surgical robots for dental applications. The second prize was won by Shelton Cheung's team who brought forward a unique idea of using Artificial Intelligence and Virtual Reality in medical applications while the third prize was given to Kaifeng Han's team that presented an innovative IOT based positioning system.

The purpose of the event was to promote an innovative mindset among the students, as well as to cultivate their communication skills, including report writing and exciting presentations. The students also got the unique opportunity to include the industry knowledge to their projects as well as to build up their networking skills by interacting with seasoned expertises from the industry who acted as mentors for them.

The event proved to be very successful and was appreciated by the students, mentors and judges alike.





# Germany Study Tour 2018 – Industry 4.0, Sustainable Growth and Innovation (26 May – 3 June 2018)

Every year, HKUEAA organizes an overseas study tour to visit a city outside Hong Kong with the aim of providing HKU engineering alumni and students with the opportunity to explore the state-of-the-art engineering technologies and innovative ideas from different countries.

Innovation, Sustainability and Industry 4.0 were the main theme of the study tour this year. Germany was selected as our destination, which could fulfill the theme as it is a world leader in innovation, boasting leading universities and research institutes alongside major engineering, IT and Industry 4.0.

Our delegation of 35 alumni and students arrived in Munich on the 27 May 2018 for our 9-day trip. In the morning after a long flight, we visited Marienplatz where it became the city's main square since 1158 and New Town City Hall which hosted the city government including the city council, offices of the mayors and part of the administration, which are located at the city centre of Munich. In the afternoon, we went to Deutsches Museum which is the one of the first and largest museums of science and technology in the world.



Marienplatz - City Centre of Munich

Germany Study Tour 2018 – Industry 4.0, Sustainable Growth and Innovation (26 May – 3 June 2018) (cont')



Deutsches Museum - explanation by local tour guide



Ir Alex KWAN, President of HKUEAA, delivered a speech in Headquarters of Siemens



Headquarter of Siemens



IBM Watson IoT Centre - introduction on IoT



Laboratory Tour at Electrochaea



Plant Tour at Geothermie Unterhaching GmbH & Co KG

Germany Study Tour 2018 – Industry 4.0, Sustainable Growth and Innovation (26 May – 3 June 2018) (cont')

Sustainability was one of the main theme in the tour. The new Siemens Headquarters we visited in Munich is one of Europe's most sustainable buildings. It has been shortlisted at this year's MIPIM Awards in the "Best Innovative Green Building" category and received Platinum certification from "Leadership in Energy and Environmental Design" (LEED). Latest technologies are used in the building: lighting, building security and the photovoltaic system are continuously monitored and adjusted to optimize heating, cooling, ventilation and protection from the sun, which results in 90% less electricity consumption, 90% reduction in emissions and 75% less water consumption.

Internet of things (IoT) is a hot topic in these years. IBM Watson IoT sets up its global headquarter in Munich in response to the soaring demand of emerging technology. In the visit to IBM Watson IoT Centre which is the first IoT collaboratory where clients and partners can work together with IBM, introduction of emerging technology such as IoT and Artificial Intelligence (AI) was given to our delegation.

Founded by the support of the Technical University of Munich in 2002, Unternehmer TUM, the Munich-based Start-up incubator, offers services to founders and start-ups to realize their small yet innovative ideas. With the broad network from Unternehmer TUM, founders can seek for advice and assistance from experts in their respective fields to develop their project. MakerSpace, Europe's largest publicly accessible high-tech workshop, enables companies, start-ups and creatives to produce prototypes and small batches using state-to-the-art machines.

Unstable supply is one of the stumbling blocks of renewable energy source. To overcome such limitation, Electrochaea has developed a solution for energy storage by using Power-to-Gas System. With the aid of microorganisms, biomethane can be produced from carbon dioxide and hydrogen as alternative natural gas. Electrochaea has launched its project 'BioCat' in 2014, which is to build a 1-MW power-to-gas plant. A laboratory tour was provided to explain the mechanism to produce Electrochaea's proprietary biocatalyst, called archaea.

Germany Study Tour 2018 – Industry 4.0, Sustainable Growth and Innovation (26 May – 3 June 2018) (cont')

Established in 2002, Geothermie Unterhaching GmbH & Co KG aims at utilizing geothermal energy in Molasse Basin. The company launched a project intended to extract geothermal energy and partially converted to electricity for daily usage. The plant is designed with maximum output of 38 MW thermal energy and 3.36 MW electricity. The plant tour with explanation on principle of utilization of geothermal energy was given by the specialists.

Founded in Germany, BMW is one of the leading companies of motorcycles and automobiles. With over 100-year history, BMW expanded its business to different countries. In BMW Museum, models of past vehicles are displayed in the exhibition centre, where visitors can know more about the history of the company as well as the model of vehicles in the past. Besides, during visiting production plant in Munich, our delegation came across the press shop, body shop, engine shop, production of interior equipment and assembly shop, which enabled us the deeper understanding on how BMW adapts to the trend of Industry 4.0.

Fraunhofer Society for the Advancement of Applied Research is the leading organization for applied research in Germany. The research activities are conducted by over 25,000 employees from 72 institutes and research units throughout Germany. At the heart of Industry 4.0 is the integration of cyber-physical systems. Communication between machines is one of the key features. Fraunhofer provides services to help companies to adapt and implement Industry 4.0 in this area. Our delegation was given an informative seminar on Industry 4.0.



Introduction to Electric car at BMW Museum



Fraunhofer - Introduction to Industry 4.0

Germany Study Tour 2018 - Industry 4.0, Sustainable Growth and Innovation (26 May - 3 June 2018) (cont')

ACATECH, another research institute we visited, is a working academy in science and engineering field. Established on 1 January 2008, ACATECH aims at providing scientific recommendations for policy-makers and the public on technology advancement, as well as to facilitate the knowledge transfer between sciences and business field. To achieve their aims, ACATECH organizes activities such as forums and workshops to foster the connection between business and academic field. Also, working groups with its members and external experts are established to conduct multidisciplinary research for the sake of future.

Apart from technical visits, our delegation also took this chance to gain knowledge in historical and cultural aspect of Germany. We visited several attraction points. One of them was Eagle's Nest which is located on top of ridge at Kehlstein and was built by Nazi Party in 1938. The building was designed for governmental and social meetings at that time.

Concentration Camp Memorial Dachau is the memorial site established to the memory of the Concentration Camp Dachau during WWII. Opened in 1933 by Nazi Party, the camp was built to prison political prisoner in Germany. The camp was eventually liberated by US army in 1945 and became a memorial site in 1962. Exhibitions and guided tour are provided to educate visitors about the history of the camp.



Visit to ACATECH

Germany Study Tour 2018 – Industry 4.0, Sustainable Growth and Innovation (26 May – 3 June 2018) (cont')



Eagle's Nest - Cultural visit



Visit to Concentration Camp Memorial Dachau



Tour at Allianz Arena Stadium



**BMW Museum** 

Allianz Arena Stadium is a football stadium with 75,000 seating capacity, which has been the home court of FC Bayern Munich since 2005. It is the first stadium in the world that uses ETFE plastic panels as its exterior facade.

To conclude, our trip has achieved our goal, and our delegation gained new ideas about Innovation, Sustainability and Industry 4.0 and how these ideas can be applied in Hong Kong. The representative will share the learning outcomes in the upcoming AGM.

HKUEAA Reception cum Class Representative Appointment Ceremony (12 April 2018)

As one of the major initiatives of HKUEAA this year, the new Class Representative System has been established which aims to foster a stronger and close-bonding alumni network. On 12 April 2018, an appointment ceremony was held at the historic Hung Hing Ying Building of the University of Hong Kong. It was well attended by engineering alumni and staff members from the Faculty of Engineering. Around 40 class representatives from different graduation years and engineering disciplines were appointed to their capacity.

The evening also marked the signing of the Memorandum of Understanding (MOU) between the HKUEAA and the Faculty of Engineering, which signifies the start of an important collaboration between the engineering alumni community and our alma mater. This collaboration will see HKUEAA donate a total of over HK\$660,000 over three years to the "HKUEAA Experiential Learning Fund" to support the Faculty in offering equipment and opportunities for students to explore innovative technologies outside of the classroom.



The event was well attended by over 70 alumni and faculty staff

Signing of the MOU to mark the collaboration towards the Experiential Learning Fund by Ir Alex Kwan – President of HKUEAA (right) and Professor Norman Tien – Dean of the Faculty of Engineering (left)

#### Hiking at Cheung Chau (8 April 2018)

HKUEAA has been arranging the annual hiking event consecutively for the 5th year. This year the hiking at Cheung Chau was held on 8 April 2018 with over 50 participants. Thanks to the nice weather on that day, all participants had an enjoyable weekend.



Over 50 participants had an enjoyable weekend at Cheung Chau

#### **Distinguished Talk and Dinner (12 June 2018)**

We were honoured to have Ir Dr. Joseph Chow – the Founding and Honorary Life President of HKUEAA and Ir Professor CK Mak - the Founding Secretary and Special Advisor of HKUEAA, to share with us on the topic "Land Creation – Topside Development of Kwai Tsing Container Terminals". The idea of 1-Land-2-Uses, putting private and public residential developments as well as community and commercial buildings on top of a podium covering the container storage yards was discussed.



Sharing by Ir Dr. Joseph Chow (front) and Ir Professor CK Mak (back)

#### **HKUEAA Football Fun Day 2018 (21 April 2018)**

The second Football Fun Day was held on 21 April 2018 at the Stanley Ho Sports Centre. With the experience from last year, the event was more well-organized, and the number of competing team was increased from 8 to 15. Positive responses were received from over 200 participants including alumni, students, friends and family members. This was a great opportunity for us to get together.

#### Results of 7-a-side competition:

WITH	Professional Group	Open Group
Champion	CLP Engineering	Airport Authority
1 <sup>st</sup> Runner-up	Water Supplies Department	MTR
2 <sup>nd</sup> Runner-up	Drainage Services Department	AECOM
3 <sup>rd</sup> Runner-up	Electrical & Mechanical Services Department	New Chi Shun Lap



15 teams joined the 7-a-side competition



Professional Group Champion

– CLP Engineering



Open Group Champion – Airport Authority

#### **Technical Visit to the CLP Power Academy (24 March 2018)**

HKUEAA arranged two visits to the Academy on 20 January and 24 March 2018 respectively for around 60 members and students. The Vice Chancellor, Ir Paul Poon, introduced to the participants the vision and mission of the Academy, as well as the various academic programmes in collaboration with local institutions. Together with the visits to the world-class training facilities incorporating the latest technology such as Virtual Reality and Augmented Reality, all participants were impressed by the commitment of the Academy in further raising industry standards and nurturing the talent we need for Hong Kong's future growth.

A visit to CLP Power Academy was conducted on 24 March 2018 with over 25 students participating in. Ir Paul POON (Vice-Chancellor of CLP Power Academy) first gave us an introduction about courses provided by the Academy.

After that, visit to the InnoPower Hall at the Academy was arranged for students. They experienced the work of electrical technicians through various Virtual Reality (VR) workshops, such as removing the kite from the overhead cables.

Introductory workshop of cable jointing, electrical fitting and HV switching were also arranged for the students with the aim of broadening students' horizons about the equipment and facilities in the power distribution system.





**Technical Visit to Cathay Pacific City (16 June 2018)** 







A technical visit to Cathay Pacific City was organized on 16 June 2018. More than 60 applications from engineering students and alumni were received and 30 applicants were selected.

In the visit, applicants were able to understand the daily training of pilots in flight training center. The recruitment method and career path of a pilot were also introduced. Applicants showed interest in the visit and interacted actively with the speaker.

Furthermore, the daily operation of an airport including the check-in and mock-up procedures were presented in inflight service training center. At the end, the applicants had a chance to realize and experience the interior design including the seats of different cabin classes.

We would like to take this opportunity to express our gratitude to Cathay Pacific for arranging this visit for HKUEAA.

#### Mentor-Mentee Gathering – Poolside BBQ Party (30 June 2018)

The Poolside BBQ Party was successfully held on 30 June 2018 at the Hong Kong Cricket Club. The gathering aimed at providing an engagement opportunity to alumni and students in a casual environment.

16 pairs of mentors-mentees along with many members of HKUEAA shared a great summer night together. Students were able to interact with experienced alumni during the party. Mentors and mentees participated in exciting water game together to train up their bonding. Others could join the game by guessing who the winner would be. "Refreshing" penalty was prepared for those who lost their bet on the final winner!

After this year's gathering, the linkage between the two generations has been strengthened. Some participants even watch the World Club semi-final together after the party.







### Appreciation to our voluntary helpers

Each year, with the help from Engineering Society, HKUSU, we recruit students helpers from undergraduate and post-graduate students in engineering faculty. We also seek help from the alumni for assisting various events. As such, we would like to express our appreciation the helpers who voluntarily offered their fruitful help to the planning, arrangement and holding of the event mentioned above, which were crucial and essential for the success of these events!





### Appreciation to our voluntary helpers

Here are some feelings from our helpers:

Being a helper in HKUEAA Student Affair is definitely a fruitful experience for me. I gradated from HKU last year, at the same time, I start my duty as a vice-chairperson in GMS. Members in GMS organizing committee are very nice and helpful. We formed a great team and achieved goal that have never been done before. I really appreciate the support of mentors, who willing to share their knowledge and experience to student. I am also grateful to EAA committee members for giving me many advices on my career as I am still green in the industry. HKUEAA is like a family to me and I wish the coming session a great success.



**Jimmy SIN** 



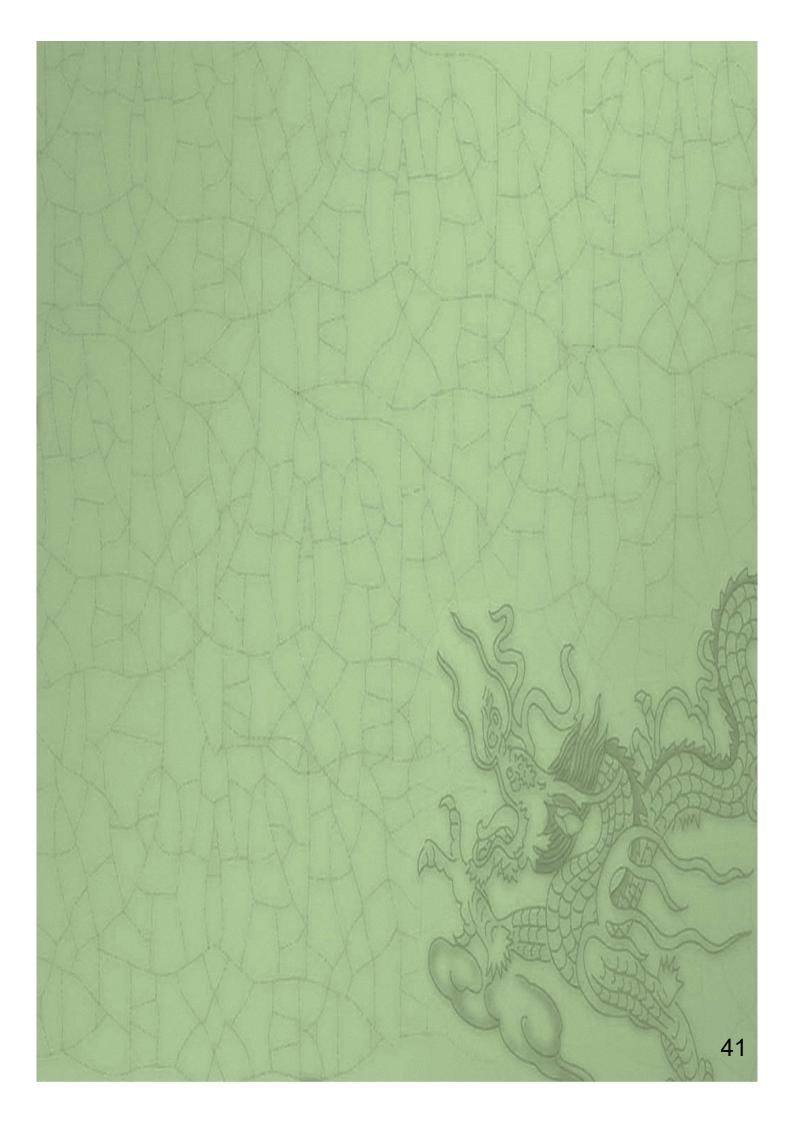
Keiko KAM

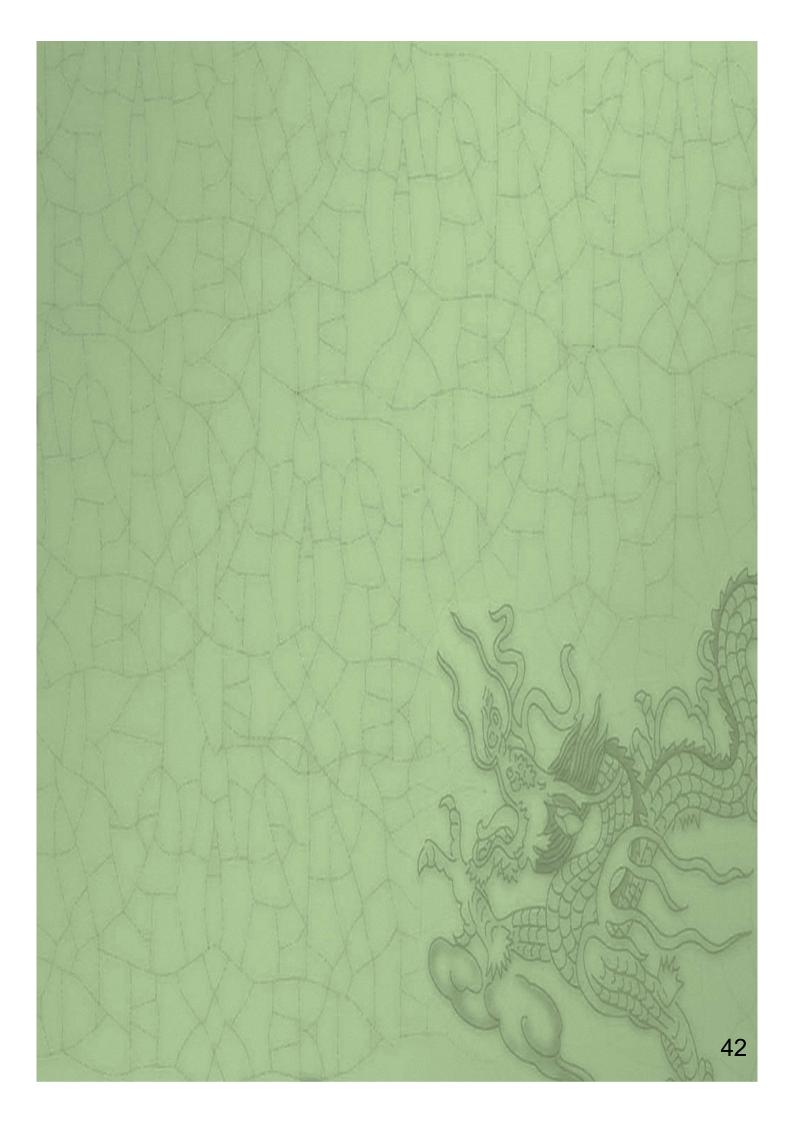
Being a HKUEAA helper is an invaluable experience in terms of scope and depth of events. Through organising various activities, ranging from technical visits to delegations and job shadowing programmes, I can help students get more familiar with the engineering field. One of our major duties is to act as a bridge between HKUEAA and HKU students. I think this is really meaningful as I can help foster strong bonds and collaborations among the members, as well as to raise the awareness of the engineering students to their future career path. Last but not least, I would like to take this opportunity to thank all EXCO members and helpers for their guidance and support through the year.

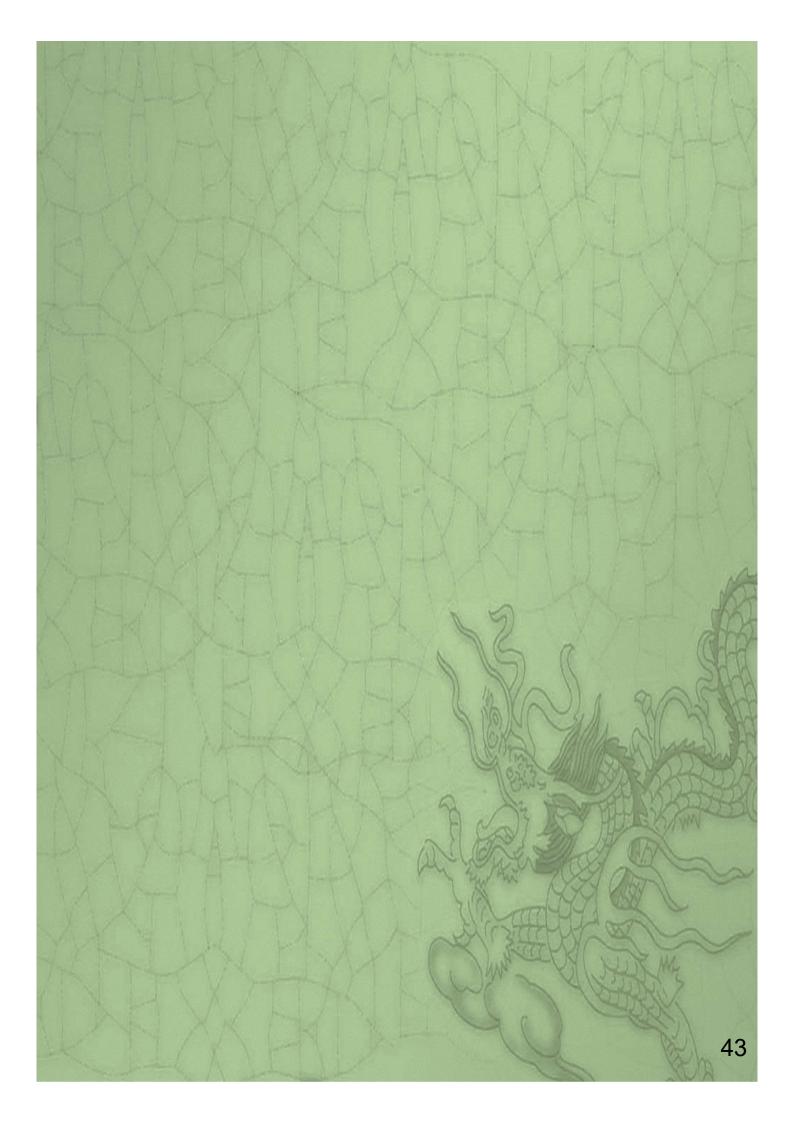
It is my honor to be one of the subcommittees in Student Affairs of HKUEAA last year. I was mainly responsible for organizing various technical visits including Cathay Pacific City, Hong Kong Observatory and mainland visit to Huawei and Tencent etc. Organizing technical visit is challenging especially on the time management and communication between students and the companies that we want to visit. Luckily, I got a strong subcommittee team and backup from student helpers to overcome the challenges. If you are feeling unsatisfied apart from academic, you are encouraged to join HKUEAA and I believe we can enrich your school life and broaden your horizons. Let's fill up your memories with HKUEAA!



**Oliver TSE** 









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