

# Report from Divisions and Other Committees 2018/2019



- 1 **Ir Ben C H LEUNG**  
Chairman, Building Division
- 2 **Ir Brian W L CHENG**  
Chairman, Building Services Division
- 3 **Ir CHIANG Tung Keung**  
Chairman, Electrical Division
- 4 **Ir Jacky K Y CHIONG**  
Chairman, Fire Division
- 5 **Ir Dr Stephen W K LAM**  
Chairman, Logistics & Transportation Division
- 6 **Mr Tommy F K CHAN**  
Chairman, Associate Members Committee
- 7 **Ir Kevin TANG**  
Chairman, AP/RSE/RGE Committee
- 8 **Ir TANG Whai Tak**  
Chairman, Young Members Committee



- 1 **Ir Alain S W TANG**  
Chairman, Control, Automation & Instrumentation Division
- 2 **Ir Norman C P CHENG**  
Chairman, Environmental Division
- 3 **Ir Ian ASKEW**  
Chairman, Geotechnical Division
- 4 **Ir Dr Ritz M H LAU**  
Chairman, Manufacturing & Industrial Division
- 5 **Ir CHAN Ming Yau**  
Chairman, Mechanical, Marine, Naval Architecture & Chemical Division
- 6 **Ir Prof Vincent Simon HO**  
Chairman, Nuclear Division
- 7 **Ir Dr LIU Yuk Shing**  
Chairman, Safety Specialist Committee
- 8 **Ir TSE Kam Leung**  
Chairman, Structural Division

Note: Ir Dennis K W HUI (Chairman, Aircraft Division), Ir Prof Daniel H K CHOW (Chairman, Biomedical Division), Ir Alfred W H LEUNG (Chairman, Civil Division), Ir Wilson W S KWOK (Chairman, Electronics Division), Ir Eric Y H PANG (Chairman, Gas & Energy Division), Ir Dr NG Chak Man (Chairman, Information Technology Division) and Ir Prof Joseph Y W MAK (Chairman, Materials Division) were not available at the photo sessions.

## June 2018

### Information Technology Division:

The annual Robocon contest is an opportunity for young science and engineering talents in Hong Kong to showcase their innovative robotics design and knowledge. Held at the Science Park in June 2018, 12 teams from six local tertiary institutions built their robots and competed in the Robocon 2018 Hong Kong Contest. The winning team from The Hong Kong University of Science and Technology earned the right to represent Hong Kong at the ABU Asia-Pacific Robot Contest 2018 held in Vietnam in August 2018.



2018. The event, held to highlight STEM education, aimed at fostering secondary school students' interest in the structural engineering profession through hands-on experiential learning. Some 30 teams of around 150 secondary school students were given two hours to design and build a 700mm high wooden tower for loading test.



### Information Technology Division:

The Information Technology Division organised the Mini Robocon 2018 competition for secondary school students. The game rules were adapted for secondary students based on Robocon 2018. A total of 38 teams from local secondary schools joined the competition and built mini-robots.



## July 2018

### Associate Members Committee, Control, Automation & Instrumentation Division, Environmental Division and Geotechnical Division:

Around 70 participants attended the joint technical seminar on "Fuel Cell Basics, Applications and Recent Advances" on 9 July 2018. The speaker was Dr Minhua Shao, Associate Professor of Chemical and Biological Engineering, The Hong Kong University of Science and Technology.

### Structural Division:

The Structural Engineering Competition for Youth 2018 — Wooden Tower Challenge 「九層之臺，始於“壘木”！」 was held on 14 July

## August 2018

### Building Division and Structural Division:

The Building Division and Structural Division jointly organised a technical visit to the Greater Bay Area (大灣區考察團) from 31 August to 2 September 2018. A delegation of 40 participants joined the visit and also took the opportunity to visit the Humen Second Bridge.



### Electronics Division:

The Electronics Division ran several events under the Smart Innovation Series to provide opportunities for members to explore the latest technologies in areas such as airport, lift and escalator. Entitled "The Future Vision", the first event was held on 24 August 2018 while two seminars in the Series, respectively on "Smart Airport" and "Smart Elevator", were organised in October and November 2018. The whole Series attracted around 150 participants.



## September 2018

### Safety Specialist Committee:

The 13th Joint Safety, Health and Environment Seminar 2018 was co-organised by the Safety Specialist Committee and other organisations. The theme of the seminar was "Innovation and Collaboration for Safety, Health and Environment Enhancement". Various industrial leaders and government officials shared their valuable experience at the seminar. The event was well received, attracting more than 700 participants, including members of HKIE, engineering students of the Vocational

Training Council, safety professionals and the management team of various companies in the industries.



## October 2018

### Civil Division:

The Civil Division co-organised a technical seminar on “Drone Powered Aerial Solutions for the Construction Industry” to give an overview of the latest commercial drone technologies specific to enterprise and industrial development. The talk covered some real-world examples and discussed the regulatory environment for commercial drone operations in Hong Kong and Asia.

### Electrical Division:

More than 300 participants attended the Division’s annual symposium, held under the theme of “Electrical Engineering Digitalisation — A, B & C”, where A, B and C stand for Artificial Intelligence, Big Data and Cloud Services. Nine papers were presented on the occasion. Immediate Past President Ir Thomas Chan gave the opening address while Mr Donald Mak, Assistant Government Chief Information Officer and Ir Prof Christopher Chao, Dean of Faculty of Engineering, The University of Hong Kong delivered the keynote speech and closing address respectively.



### Environmental Division:

The Division arranged a delegation of 20 participants to the Greater Bay Area on 20 - 21 October 2018. The study mission enhanced participants’ understanding of the development and opportunities available in the Greater Bay Area. The delegation visited Guangzhou, Foshan and Zhaoqing and met with representatives of the Guangdong Institute of Testing and Analysis, the Guangdong Science and Technology Association and Guangdong Fuxin Technology Co Ltd.



### Manufacturing & Industrial Division:

A total of 50 tertiary students in manufacturing and industrial engineering participated in a series of local visits and technical seminars organised under the Young Engineers Programme (YEP) from October 2018 to April 2019. The events aimed to help students better understand the path to becoming a professional engineer while fostering ideas relevant to their careers and professional development. The major theme of YEP this year was Cyber-Physical Systems (CPS) for industrial and manufacturing applications.



### Mechanical, Marine, Naval Architecture & Chemical Division:

A group of 20 Hong Kong delegates participated in the Advanced Maritime Engineering Conference held concurrently with the 8th Pan Asian Association of Maritime Engineering Societies Meeting in Busan, Korea, on 9 - 12 October 2018. In addition to participating and presenting papers at the conference, delegates made technical visits to the shipyard, the research institute of ships and ocean engineering, the university, the liquified natural gas terminal and the Society of Naval Architects of Korea in Busan.



## November 2018

### Aircraft Division:

The Aircraft Division organised a technical visit to the Airshow China 2018 in Zhuhai on 7 November 2018. Around 30 participants gained access to the Airshow through the Hong Kong-Zhuhai-Macao Bridge which was newly opened in October 2018, experiencing the world class mega-construction work.



### Biomedical Division:

Representatives of the Biomedical Division presented a seminar on “Know More about Biomedical Engineering and Technology” at the InnoCarnival 2018, held under the theme of “Innovation for a Smart Future”.

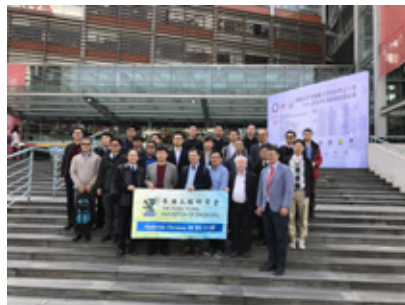
### Young Members Committee:

Four young members represented the Young Members Committee at the 36th Conference of the Association of Southeast Asian Nations Federation of Engineering Organisations (CAFEO 35) which was held in conjunction with the 25th Meeting of Young Engineers of ASEAN Federation of Engineering Organisations on 11 - 15 November 2018 in Singapore. The theme of CAFEO 36 was “Engineering Rail Connectivity & Fostering Excellence in Engineering Education”. The activity enabled the young members to learn more about new engineering developments and network with fellow engineers, while promoting the HKIE and Hong Kong.



### Materials Division:

A group of 23 delegates joined a three-day technical visit to Shanghai from 29 November to 1 December 2018 to learn about the development of Modula Integration Construction in Shanghai. The delegation also visited the BASF Admixture Technology Research Center, the Baoye Precast Factory, the College of Civil Engineering, Tongji University, the National Engineering Technology Research Centre for Prefabrication Construction and a construction project.



## December 2018

### Environmental Division:

Representatives of the Environmental Divisions participated in the Joint University Career Talk. Held on 21 December 2018, it attracted more than 50 students eager to know about the various channels available for becoming a member of the HKIE.



### Gas & Energy Division:

More than 30 participants joined a technical visit to Macau on 1 December 2018. The visit enabled participants to gain a good understanding on the uses of natural gas in Macau and how data analytics was used for energy saving in some major energy plants.



### Nuclear Division:

Around 50 members attended the technical seminar entitled “Beginning, Development, Innovation and Outlook of China General Nuclear in the Four Decades Since the Open Door Policy” held on 5 December 2018. The seminar was delivered by Mr Changshen Lu, Director of China General Nuclear.



### Safety Specialist Committee:

Held for the 13th year since 2006, the Safety Specialist Committee Students Project Competition aimed at promoting safety engineering and science innovation while providing an open and competitive platform for engineering students to demonstrate their engineering capabilities and share the learning process in safety regime. A total of 10 students were selected and recommended by their colleges to take part in this year's edition of the Competition, and winners were presented the award certificates.



## January 2019

### Building Services Division:

Established in Session 2018/2019, the Women in Building Services Engineering (WBSE) Group held its first gathering on 11 January 2019. Around 50 participants joined the “Happy Hour” to share stories about the challenges, difficulties, tears and joy experienced by women engineers over the course of their career development journeys across different building services roles including academia, consultants, contractors, government sectors and public utilities.



## February 2019

### Control, Automation & Instrumentation Division:

The Control, Automation & Instrumentation Division held its annual symposium on 20 February 2019 under the theme of “innovation and new momentum in control, automation and instrumentation”. More than 250 guests, members and sponsors attended the event.



### Electronics Division:

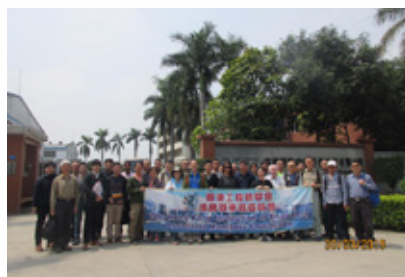
With a theme of “Innovation for Tomorrow”, the Hong Kong Electronics Project Competition 2019 received an enthusiastic response, attracting more than 40 teams from the industry and tertiary education sectors. Shortlisted teams demonstrated their systems/products and shared their ideas with the judging panel, comprised of senior executives, experts and prominent academics.



## March 2019

### Associate Members Committee:

A 20-member delegation made a technical visit to the MESAN Group in Dongguan on 20 March 2019 to learn more about the design and latest technological advances in the manufacturing process of evaporative cooling equipment.



### Geotechnical Division:

A technical visit to New Zealand was organised on 2 - 9 March 2019, with the aim of broadening young professionals' experience in the delivery of geotechnical construction projects in a different market. The 26-member delegation gained hands-on experience on the practical application of digital tools in earthquake remedial works during the visit.



### Electrical Division:

More than 300 participants joined the four professional short courses covering various aspects of electrical engineering delivered by the Electrical Division in March 2019. These courses were endorsed by the Electrical and Mechanical Services Department as satisfying the requirements of “CPD Module 2: Technical Knowledge Training” for the registration of Registered Electrical Worker.



### Mechanical, Marine, Naval Architecture & Chemical Division:

More than 30 teams totalling around 120 secondary students participated in the Young Inventor Competition (YIC), co-organised by the Mechanical, Marine, Naval Architecture & Chemical Division. The annual flagship event of the Division included a “Treasurer Hunt” this year, where participating teams were required to build automatic vehicles to go into a cave and retrieve the “treasure” to win.



### Nuclear Division:

A technical visit to the Yangjiang Nuclear Power Station was arranged for 20 participants on 9 March 2019. As part of the tour, participants also had the opportunity to visit the interior of the containment building, which holds the primary cooling system for the reactor.



### Structural Division:

Entitled “Innovation in Structural Engineering and Construction”, the annual seminar 2019 of the Structural Division was held on 5 March 2019, attracting more than 200 participants. The event aimed at promoting innovation and new technologies to drive forward productivity, efficiency and enhanced project delivery in the construction industry. Distinguished overseas and local speakers from academia and prominent practicing professionals shared their insights, experience and innovative ideas from recent research covering structural engineering and new applications in construction projects.



In the same month, the Structural Excellence Award 2019, organised to promote excellence in structural engineering and to give professional recognition to fellow structural engineers for their outstanding achievements in the field of structural engineering, received 13 project submissions and eight research submissions. All of them were of excellent quality, demonstrating very high standard of works by our engineers and researchers in Hong Kong.



### Young Members Committee:

A delegation of 16 young engineers joined an overseas visit to Israel. Centred around the theme of “Innovation • Infrastructure • Investment”, the delegation studied Israel’s advanced technology and startup ecosystem and their potential applications in Hong Kong. In association with this visit, a series of 10 local seminars and visits, attended by more than 300 members, were subsequently organised.



## April 2019

### Aircraft Division:

The Aircraft Division held a Lecture Dinner after its Annual General Meeting on 30 April 2019, with a record-high attendance of more than 300 participants. Entitled “Capacity Challenge — How Technologies Help” the lecture was delivered by Ir Simon Li, Director-General of Civil Aviation.



### Building Division:

The 18th Building Division annual seminar entitled “Innovation and Technology for Productivity Enhancement” was held on 8 April 2019. It was a successful and fruitful event attracting more than 250 participants keen to share insights and exchange views on innovations and technologies in the building industry.



In the same month, the Building Division contributed as one of the booth subscribers at The HKIE Engineer Day, an event held to promote the HKIE and engineering applications to the public in relaxing atmosphere and the Division's game booth attracted more than 500 visitors.



#### Building Services Division:

The Building Services Division jointly organised a one-day seminar entitled “New Horizons in BS Technology & Sustainability” with The Hong Kong Polytechnic University on 12 April 2019. Bringing together eight speakers from various aspects of building services engineering, the event drew an audience of 230 participants.



#### Electronics Division:

More than 300 participants attended the Hong Kong Electronics Symposium (HKES2019) organised by the Electronics Division. The theme of HKES2019 was “Engineering the Building Blocks of a Smart City”, and Mr Victor Lam, Government Chief Information Officer, was invited to

present the keynote speech on the occasion.



#### Environmental Division:

The annual forum of the Environmental Division convened various stakeholders including the government, academics, research institutions, entrepreneurs and environmental startups to explore the opportunities and challenges of promoting environmental innovations in Hong Kong. More than 200 participants attended the Forum, which featured Mr K S Wong, Secretary for the Environment, as the guest of honour.



#### Fire Division:

Held on 25 April 2019, the Discussion Forum 2019 of the Fire Division featured officials from the Buildings Department and the Fire Services Department, authorised person and fire practitioner who shared their views with participants on various aspects of fire engineering report submissions including the quality of the submissions by the fire practitioners and the occasionally long processing time taken by the authorities. The event drew an attendance of more than 270.



#### Geotechnical Division:

The Geotechnical Division's 39th annual seminar entitled “Transformation in Geotechnical Engineering — Technology, Digital and Innovation” was well received by around 410 participants. The event provided an opportunity for practitioners to share experiences on advances in digital technologies that bring new insights into the delivery of ground engineering projects.

#### Logistics & Transportation Division:

Under the theme of “How Smart Mobility Analytics are Changing the Transport and Logistics Industry?”, the Logistics & Transportation Division's annual symposium offered an interactive platform for professionals from the industry and representatives from the government to share insights on the latest applications and development of smart mobility. The symposium was attended by 115 participants and featured Mr Michael Law, Assistant Commissioner, Urban Transport Department of the HKSAR Government, as guest of honour.



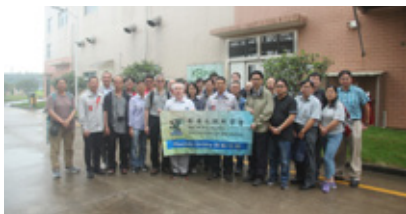
### Manufacturing & Industrial Division:

Aimed at nurturing future talents for Industry 4.0 and smart manufacturing in Hong Kong, the Industry 4.0 Education Forum constituted the Manufacturing & Industrial Division's flagship event this year. The Forum, with Vice President Ir Dr P L Yuen and Ir Dr the Hon W K Lo serving as guest of honour, attracted more than 200 participants.



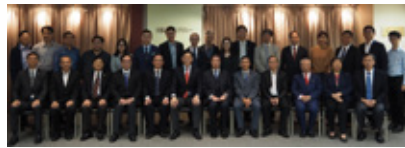
### Materials Division:

A 16-member delegation made a technical visit to the PVB (Polyvinyl Butyral) Factory of Kingboard Holdings Ltd in Qingyuen on 20 April 2019 to learn about the manufacturing process of PVB glass production and their logistics arrangement for quality control of the glass production.



### Nuclear Division:

A total of 60 participants attended the technical seminar on "Development and Application of Radioactive Waste Technology for Nuclear Power in Taiwan". They were introduced to the technical projects, technical methods, treatment effects and the effectiveness of minimising solid radioactive waste in Taiwan, while current problems related to the disposal of international nuclear radioactive waste were also discussed.



## May 2019

### Associate Members Committee, Control, Automation & Instrumentation Division and Environmental Division:

Held on 27 May 2019, the joint "Occupation, Safety and Health Seminar: Design, Installation, Telescoping and Dismantle of Tower Crane in a Construction Site" attracted around 120 participants. The seminar covered topics like the design of tower cranes, considerations for the location of the cranes in construction sites, as well as safety precautions and related code of practice on installation, telescoping and dismantle procedures of cranes.

### Control, Automation & Instrumentation Division:

Organised to promote control, automation and instrumentation technologies and to encourage young/potential engineers and technologists to join the field, the Paper Award Competition attracted an overwhelming response. More than 20 quality papers were received with 12 of them being awarded in various categories at the award presentation ceremony held in May 2019.



### Fire Division:

The 11th Annual Symposium cum Fire Engineering Excellence Award (FEEA) 2019 was held on 31 May 2019. Mr Daryl Li, Director of Fire Services, served as guest of honour for the event. Distinguished speakers were invited to share their insights and ideas on the theme of "Excellence in Fire Engineering", and the grand award winners of FEEA 2019 were invited to share their achievements. The FEEA is the first of its kind to reward excellence in fire engineering design and research.



### Gas & Energy Division:

Following the two-session workshops on "From Thinking to Critical Thinking" held in December 2018, the Gas & Energy Division organised another workshop on "From Critical Thinking to Communicating" on 18 May 2019. These workshops, delivered by Ir Lewis Ho, helped participants develop and apply critical thinking skills and communicate effectively.



### Logistics & Transportation Division:

Held on 4 May 2019, the Best Student Paper Awards 2018 Seminar was a meaningful event where young members were invited to share their inspiring ideas with the audience. Five outstanding students in transportation engineering were awarded the 2018 Award and each of them gave a three-minute presentation. Ir Dr Stephen Lam, Chairman of the Logistics and Transportation Division also delivered a welcome address.



liquefied natural gas (LNG) carrier, LNG re-gasification equipment and advanced gas turbines. They also visited the world's largest automated container port manufacturing plant.



### Young Members Committee:

The International Young Engineers Exchange Forum was the first ever international event for young engineers organised by the Young Members Committee. Gathering participants from eight different regions including Hong Kong, Japan, Macau, Malaysia, the Philippines, Singapore, South Korea and Taiwan, it aimed at building a global perspective among our members. With the theme of "Gear Towards the Future: Innovative and Sustainable Cities", the event attracted more than 150 young engineers.

### Materials Division:

A delegation of 22 participants joined a four-day visit to Kaohsiung, Taiwan on 8 - 11 June 2019, and visited a paint factory, a steel factory, a corrosion protection company, a construction site and some new constructions in Kaohsiung.



## June 2019

### Electrical Division:

Held for the tenth academic year since 2009, the Energy Innovation for Smart City Competition aims at providing opportunity for secondary students to propose and implement innovative projects related to the promotion of sustainable energy usage for modern smart city. The Competition attracted more than 250 participants this year, and the Final Competition was held in June 2019.



### Safety Specialist Committee:

Held on 13 June 2019, the annual symposium 2019 of the Safety Specialist Committee entitled "Best Practice in Safety Engineering" attracted more than 80 participants. Speakers from the government, Construction Industry Council and other stakeholder groups in occupational health and safety shared their insights and valuable experience on the enhancement of workplace safety and productivity through embracing technologies, collaboration, innovative management and control.

### Gas & Energy Division:

A delegation visited Shanghai to explore "New Technologies of Value to Hong Kong's Future" on 2-6 June 2019. The 28-member delegation visited manufacturing facilities for

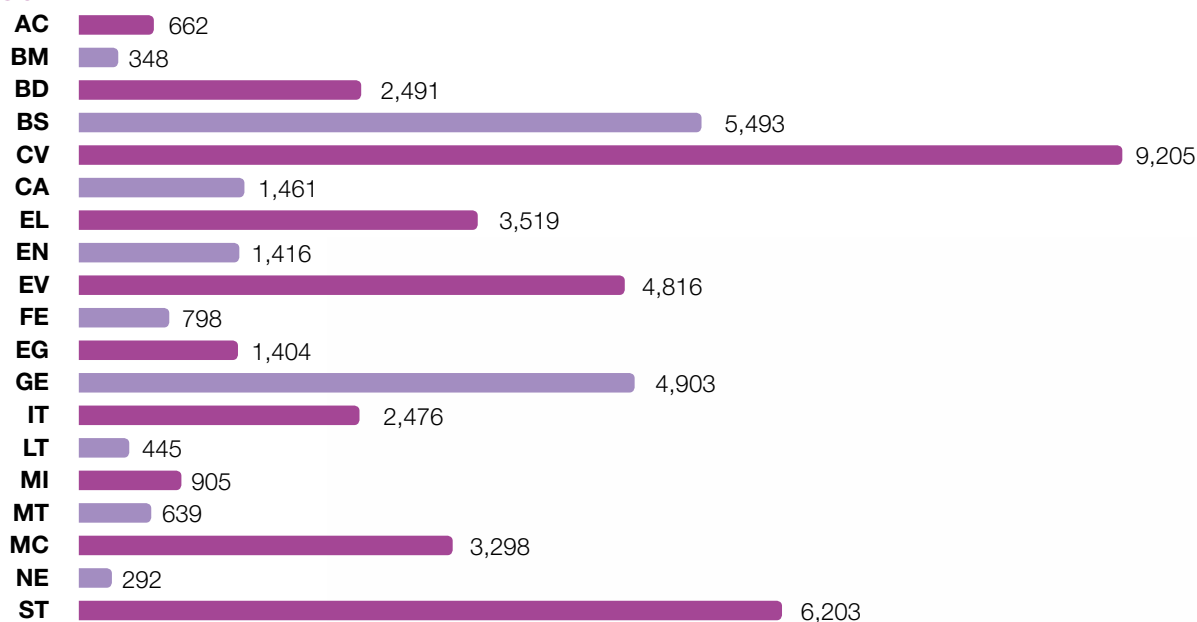
## Membership of Divisions/Committees

(As at 18 June 2019)

Division		Membership
Aircraft Division	AC	662
Biomedical Division	BM	348
Building Division	BD	2,491
Building Services Division	BS	5,493
Civil Division	CV	9,205
Control, Automation & Instrumentation Division	CA	1,461
Electrical Division	EL	3,519
Electronics Division	EN	1,416
Environmental Division	EV	4,816
Fire Division	FE	798
Gas & Energy Division	EG	1,404
Geotechnical Division	GE	4,903
Information Technology Division	IT	2,476
Logistics & Transportation Division	LT	445
Manufacturing & Industrial Division	MI	905
Materials Division	MT	639
Mechanical, Marine, Naval Architecture & Chemical Division	MC	3,298
Nuclear Division	NE	292
Structural Division	ST	6,203

Committee		Membership
Associate Members Committee	AMC	887
Safety Specialist Committee	SSC	6,783
Young Members Committee	YMC	4,261

### Division



### Committee



Membership 0 2,000 4,000 6,000 8,000 10,000