

Electrical Division 電機分部

## **Annual Report for Session 2017/2018**

## 1. <u>Foreword</u>

Session 2017/2018 was a very fruitful year of the Electrical Division. Including the upcoming Division AGM scheduled for 4 May 2018, the Division Committee held eleven meetings in Session 2017/2018 to plan, implement, and review activities (both locally and overseas) for HKIE members.

## 2. <u>Technical Programme Sub-committee (Chaired by Ir Dr Bryan PONG)</u>

The Sub-committee had organised/ co-organised a total of fifteen (15) technical seminars/ talks/ tutorials in the session. There were 75 attendees on average for each event.

Date	Торіс	Speakers
14July 2017	"Construction of Wind Power Prediction Intervals: An advanced Approach" Co organized with Electrical Engineering Dept, Polytechnic University	Prof Kit Po WONG of the University of Western Australia
23Sept 2017	"Driving Force in Electric and Hybrid Vehicles", Video presentation entitled "Innovation driven green economy and green mobility"	Prof KT CHAU, & Prof CC CHAN (in Putonghua) the University of Hong Kong Co organized with HKU
16 Oct 2017	"Major Revision of the Code of Practice for the Electricity (Wiring) Regulations (2015 Edition) and Case Sharing of Recent Electrical Incidents", Co organized with IET	Ir SIT Kin-Ka, EMSD
19 Oct 2017	"民用建筑电气设计能效指标的 研究与应用"	李炳华-电气总工程师,悉地国际建 筑设计顾问有限公司
14 Nov 2017	"Toward Multi-Dimensional Elevator Systems" Co-organize with HKU	Dr Albert So
27 Nov 2017	Second seminar on "Major Revision of the Code of Practice for the Electricity (Wiring) Regulations (2015 Edition) and Case Sharing of Recent Electrical Incidents"	Ir SIT Kin-Ka, EMSD
30 Nov 2017	"HKAA Smart Cities Forum" as supporting organization	
28 Nov, 4 Dec, 5 Dec, 12 Dec 2017	Technical Seminar Series on "Retro-commissioning in Hong Kong From Stakeholder Engagement to Implementation" as	



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	supporting organization	
5 JAN 2018 (FRI)	"Nurturing Power Expertise for a Smarter Hong Kong Future" jointly organized with HKIE-MMNC and HKIE-AMC	Mr. Paul Poon of CLP Power Academy
8 Feb 2018 (Thur)	"Traffic Control & Surveillance System of the Wanchai bypass", co-organized with HKU	Mr. Paul Yim of Delcan, A Parsons Company
5 March (Mon)	"Indoor Positioning System, Deliver value beyond illumination"	Mr. Ken Lo & Mr Ralph Lui from Philips
19 Mar 2018 (Mon)	"Partial Discharge measurement on MV switchgear and cable", co-organized with HKU	Carl Eastham of IPEC Ltd.
13 Apr 2018	"From Kai Tak to Chek Lap Kok The Construction and Historical Development of Hong Kong Int'l Airport"	Ir James Ng
14 May 2018	"Collect the Smart Data and use them Smartly in Electrical Systems"	Mr. Travis Kan of Schneider Electric
24 May 2018	Innovation, Technology and Entrepreneurship : Future of Hong Kong	Ir Albert Wong, CEO of HKSTP

# 3. <u>35<sup>th</sup> Annual Symposium (Chaired by Ir CF CHAN)</u>

The 35<sup>th</sup> Annual Symposium was held on 12 October 2017 at Sheraton Hong Kong Hotel & Towers. The Symposium Organising Committee was chaired by Ir CF CHAN, with Ir YK CHU as the Symposium Secretary. The Symposium theme was "Engineering a Climate-ready City" for which ten papers were presented. The HKIE Vice President, Ir Ringo S.M. Yu delivered an opening address on behalf of the HKIE President. Ir Paul W.Y. Poon, CLP Power Academy Vice Chancellor and Ir C.S. Ho Hong Kong BEAM Society Ltd. General Manager delivered the keynote speech and closing address respectively. Over 300 participants attended the Symposium and their responses were overwhelming.

## 4. Local Technical Visit Sub-committee (Chaired by Ir Andrew Yan)

The Sub-committee had organized six technical visits to places of technical interests for members up to end April. Another one was scheduled for 12 May 2018. This year, a series of environmental related visits were held with an aim to arouse the interest and awareness of the members about the waste re-cycling industrial and the green energy in Hong Kong. Response for each visit was enthusiastic and about 26 attendees on average attended each visit.

Date Place of Visit
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15 July 2017	Technical Visit to Ecopark Hong Kong
25 November 2017	Technical Visit to Hong Kong Jockey Club Shatin Communications and Technology Centre
2 December 2017	Technical Visit to Conghua Pumped Storage Power Station
24 February 2018	Technical Visit to WSD Floating Photovoltaic System at Plover Cove Reservoir
21 March 2018	Technical visit to the $T \cdot Park$
21 April 2018	Technical Visit to DSD Happy Valley Underground Stormwater Storage Scheme
12 May 2018	Technical Visit to CLP Power Academy

## 5. <u>Mainland China Technical Visit Sub-committee (Chaired by Ir WS TAM)</u>

In the 7-day technical visit to Gansu (甘肅) during 16-22 September 2017, 23 participants visited Qinghai Province Hainan Tibetan Autonomous Prefecture Photovoltaic (PV) Power Station (青海省海南藏族自治州光伏發電站) with solar-power system and complementary power system between hydro-power & solar-power. Total installed power capacity of the Power Station is 2,700 MVA and its site area is about 80 km<sup>2</sup>.

## 6. <u>Overseas Technical Visit Sub-committee (Chaired by Ir Edward YEUNG)</u>

A delegation of 31 had visited Portugal and Spain from 1 to 13 July. On 3/7/17, we had visited a smart city project in Evora of Portugal, which is an innovative project, to provide the electricity grid with information and equipment capable of automating its management. This project will improve the quality of service, cut operating costs, help to reduce emissions and enhance energy efficiency as well as environmental sustainability.

On 7/7/17, the delegation visited the Schneider Electric Plant in Grinon near Madrid of Spain. This plant manufactures various types of air insulated switchgear (AIS) (up to 24kV)/gas insulated switchgear (GIS) (up to 60kV) equipment and components. They also produce many compact substation units using metallic or cast concrete casing for various trackside and underground applications.

On 10/7/17, the delegation visited the Fermator Factory at Reus near Barcelona of Spain. Fermator Group is the largest mono-product manufacturer of automatic doors for lifts. Both robotic and manual processes are used for electric door production to meet various customer demands. The delegation was interested to see the impact and endurance tests on these electric doors.

## 7. International Conference on Electrical Engineering (ICEE) 2017 (Led by Ir Prof CC CHAN)

The International Conference on Electrical Engineering (ICEE) 2017 Weihai, China during 4-7 July 2017. It offered a very good and precious opportunity for electrical engineers from all over the world. The conference covered a wide range of topics such as flexible power transmission, power system analysis, renewable energy technologies, intelligent mechatronics, power electronics, machines, electric vehicles, high voltage technologies, distribution network and information technology. 569 abstracts and 373 full papers were presented by electrical engineers and students from 11 countries and regions.



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#### 8. <u>Membership Drive Sub-committee (Chaired by Ir YH CHAN)</u>

Five career seminars were organized in 2017/2018 session at IVE (Chai Wan), IVE (Tsing Yi), IVE (Haking Wong), HKU and HK PolyU. The presentation included an introduction on the HKIE and Electrical Division, career opportunities in the Government, power utilities, consulting and contracting sectors, the need and path of joining HKIE. The responses were enthusiastic.

#### 9. <u>Energy Innovation for Smart City Competition (Chaired by Ir HO Siu Kwong)</u>

The programme was sponsored by the CLP Power Hong Kong Limited and have been organised yearly since 2009 for secondary students. It aimed to provide an opportunity for the students to propose and implement innovative projects on energy efficiency initiatives and promote energy efficiency to the community. It was firstly launched as the "Energy Innovation Project Competition" and was re-named as "Energy Innovation for Smart City Competition" to give more focus on smart use of energy in modern city. Over 400 students joined the Competition in 101 teams this year, with 39 teams competing in the second round. Ten teams would then enter the Competition Final on 12 May 2018.

## 10. <u>Electrical Model Design Competition (Chaired by Ir Tony YEUNG)</u>

For the past 6 years, the Division had been organizing a contest for lower form secondary school students with an aim to promoting electrical engineering, enhancing the knowledge and awareness of renewable energy and encouraging low carbon living among them. This year, the Division continues to organize the same event with the main theme of solar energy. The event was supported by the Education Bureau of the HKSAR Government and the HK PolyU with encouraging sponsorships from The Hongkong Electric Co., Ltd. and CLP Power Hong Kong Ltd. In 2017/18 session, over 120 lower form secondary school students and more than 30 teachers from 32 schools participated in the contest. The contest will be held on 6 May 2018.

#### 11. Professional Short Courses in Electrical Engineering (Chaired by Ms Candy LEUNG)

Four professional short courses covering various aspects of electrical engineering were held in March 2018. As in previous years the courses attracted 328 registrations and the Committee was greatly encouraged by the overwhelming response. The professional short courses of 2017/18 continued to be endorsed by EMSD as satisfying with the requirements of "CPD Module 2: Technical Knowledge Training" for the registration of Registered Electrical Worker. The Division also invited EMSD to conduct a seminar on "CPD Module 1: Safety Law and Regulation" scheduled for late June 2018.

#### 12. Annual Dinner (Chaired by Ir TK CHIANG)

To conclude the series of activities celebrating the 40th anniversary of the Electrical Division, the Annual Dinner 2018 was scheduled for 19 June 2018 to commemorate with fellow members our achievements over the past four decades. Results of the competitions were exhibited and winners appreciated at the dinner. This was also a perfect opportunity for fellow members to network with each other and enhance the tie with Division and the industry.



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## 13. <u>The HKIE Boards and Committees</u>

The Division actively participated in the work of the Institution and had representation/ ex-committee members in the following Board and Committees:

- Council (represented by Ir HO Siu Kwong)
- Discipline Representative (represented by Ir Gary KO)
- Learned Society Board (represented by the Chairman, Ir Dr Edward LO)
- Public Relations Committee (represented by the Deputy Chairman, Ir TK CHIANG)
- Community Service Committee (represented by the Hon Secretary, Ir Tony YEUNG)
- Continuing Professional Development Committee (represented by Ir Stanley LEUNG and Ir Raymond SZE)

## 14. Learned Society Board (LSB) (Represented by the Chairman, Ir Dr Edward LO)

Ir Dr Edward LO co-ordinated learned society activities and represented the Division to participate in the LSB to provide recommendation to the Council at strategic level. Two past Chairmen joined the Mainland visit organized by the LSB under the Belt and Road Initiative.

#### 15. Public Relations Committee (PRC) (Represented by Ir TK CHIANG)

Ir TK CHIANG represented the Division in the Public Relations Committee and led Division members to support the activities in promoting public relations of the HKIE.

## 16. <u>Community Service Committee (CSC) (Represented by Ir Tony YEUNG)</u>

Ir Tony YEUNG served as a link between the CSC and the Division to provide prompt and constructive comments to consultation papers issued by the HKSAR Government and other statutory/professional bodies.

## 17. <u>Continuing Professional Development Committee (CPD) (Represented by Ir Stanley LEUNG</u> and Ir Raymond SZE

Ir Stanley LEUNG and Ir Raymond SZE represented the Division in the CPD Committee providing updates to Division members on all matters relating to CPD requirements.

#### 18. Publication and Communication with Members (Chaired by Ir Steve CHAN)

Ir Steve CHAN served as the authorised representative of the Division to notify members the activities and events of the Division through HKIE e-newsletter, journal of the HKIE (*Hong Kong Engineer*) divisional website (<u>http://el.hkie.org.hk</u>) and the newly launched Facebook page.

19. <u>The 40th Anniversary of HKIE Electrical Division (Chaired by Ir CF CHAN)</u>

Ir CF CHAN led the Organizing Committee of celebrating the 40th Anniversary of the Electrical Division. Major events have been completed and to be held are listed below:

- Cocktail Reception (held on 12 Oct 2017)



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- Facebook Page (launched since 12 Oct 2017, over 37,000 hit times)
- Photo Competition (organized in March & Award Ceremony held on 15 Mar 2018)
- Calligraphy Competition (held on 28 April 2018)
- Electrical Division 40th Anniversary Dragon Boat Cup (to be held on 18 Jun 2018 in Sha Tin, 8 teams registered)
- 40th Anniversary Logo (in used)
- Souvenirs (in use Ties and Scarves)
- 50-page publication and Journal Article (being prepared)
- Electrical Division 40th Anniversary Dinner (to be held on 19 June 2018)

#### 20. Concluding Remarks

The Committee of the Electrical Division has been organising activities to promote and advance the profession of electrical engineering. Technical talks, visits, short courses, seminars, conferences and reach-out programmes as reported above were only some of the works of the Committee. The Committee not only served over 3,000 members of the Electrical Division, but also formulated and implemented plans to introduce the profession to the younger generation, and arranged visits to and exchanges with overseas and Mainland learned society counterparts. We would continue the missions of the Division to nurture the youth and provide a platform for the development of HKIE members.

21. I would like to thank all Committee Members for their devotion to the Division. Only with their unfailing support and active participation, I was able to lead the Division to another successful session. Immersed in a culture of dedication and continuous improvement, the Division is prepared to meet the needs and aspiration of all members in the coming sessions.

(Ir Dr Edward LO) Chairman, Electrical Division Session 2017/18 4 May 2018



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#### Electrical Division 電機分部 Electrical Division Committee Session 2017/2018

Chairman	Ir Dr Edward LO		
Immediate Past Chairman	Ir CF CHAN		
Deputy Chairman	Ir TK CHIANG		
Honorary Secretary	Ir Tony YEUNG		
Honorary Treasurer	Ir YK CHU		
Members	Ir Steve CHAN Ir Alex FU Ir WI HO Ir Tommy LAM Ir YH CHAN Ir Stanley LEUNG	Ir Dr. Bryan PONG Ir Andrew YAN Ir Peter TANG Ms Candy LEUNG Ir CL WONG Ir Raymond SZE	
Ex-officio Members	Ir SK HO Ir Gary KO Mr Indi WONG Ms June YIP Ir Simon TSUI	(Council Member (Division)) (Discipline Representative) (AMC Representative) (YMC Representative) (SSC Representative)	
Co-opted Members	Ir Walter AU Ir Kit CHAN	Ir YH LEUNG	
In Attendance	Ir Simon CHUNG Ir Sai King HO Ir Geoffrey CHAN Ir KM LEUNG Ir Albert TO Ir CL LEUNG Ir PK CHAN Ir PK CHAN Ir Dr FC CHAN Ir Dr FC CHAN Ir Hugo CHAN Mr Jason CHAN Mr Jason CHAN Mr Ryan CHAN Ir Tony LAU Ir Ian LEE Ir Dr Tony LEE Ir Dr Tony LEE Ir Gordon WOO Ir SS Tang Ir Stephen Yip Ir Sherman TONG Ms Karen WONG Ms Yani KO Ms Jacqueline LO	Past Chairman as advisor Past Chairman as advisor Ir Dr. Ken CHAN Ir W.K. LEE Ir Joseph LEUNG Ir Vincent LEUNG Ir Vincent LEUNG Ir Henry NGAI Ir Dr. Philip PONG Ir Venus TAM Ir W.S. Tam Ir W.H. Yan Mr Smith TSAI Ir Edward YEUNG Ir Mandy LEUNG Mr Wilson Kot	