

Annual Report for Session 2020/2021

1. **Foreword**

The novel coronavirus disease (COVID-19) has been affecting the entire world over the past year. Social and physical distancing measures and restrictions imposed in many countries caused lockdown of businesses, schools and overall social life and physical activities globally including Hong Kong SAR. Due to COVID-19 impact, some of the events and activities planned by the Electrical Division for Session 2020/2021 were inevitably limited, postponed and even cancelled, which included Division's Annual Dinner, Local Technical Visits, Overseas Technical Visit, Mainland Technical Visit etc.

Although the Division was confronting with the challenges caused by the COVID-19 pandemic, the Division Committee (the Committee) had unceasingly held twelve (12) meetings including the Division AGM and a Committee meeting scheduled for 30 April 2021 and 9 June 2021 respectively in this Session to provide valuable support and immeasurable services to our members for broadening technical knowledge and promoting professionalism in electrical engineering.

With enlightenment and guidance of the past Chairmen, and great effort of the Committee members, we had completed most of the tasks successfully planned for the Session, including the flagships of Division - Annual Symposium, Electrical Model Design Contest, Energy Innovation for Smart City Competition, Membership Drive presentations to students of universities and higher education institutions, technical webinars and Professional Short Course with four classes for the members etc. The Division was also supporting and participating in the HKIE's initiatives and activities such as the HKIE Innovation Expo to be held in June 2021, the ICEE Conference to be held in July 2021 in Dalian, China, etc. Activity details for this Session are summarized in the following sections.

2. **38th Annual Symposium** (Chaired by Ir Tony Yeung)

The 38th Electrical Division's Annual Symposium was successfully completed on 13th October 2020. The theme of Symposium was "AI⁴ in Electrical Engineering", in which A stands for Actualization, and I⁴ represents Inspiration, Innovation, Intelligence & Integration.

The Symposium was special and more impressive among those we had held so far because it was not only the first ever conducted in combination of online and face-to-face event for coping with the situation of pandemic at that time, it was also challenged by the hoisting of typhoon signal No. 8 concurrently which never happened during past events. Almost 300 participants joined the online conference, which was overwhelmingly more than the turn up rate we expected in the beginning of the Symposium.

The Symposium was kicked off by an opening speech from the HKIE President, Ir Prof. PL Yuen, followed by the keynote speech by Ir Ricky Leung, Executive Director, Engineering & Technology, Airport Authority Hong Kong. The Speakers who delivered nine (9) technical papers were from different public and private sectors, academic institutes, power utilities and mass transit. The Symposium was concluded by Dr. David Chung, JP, Acting Secretary for Innovation & Technology, The Government of the Hong Kong SAR.

Electrical Division
電機分部

3. **Technical Programme Sub-committee** (Chaired by Ir Joseph Leung)

Due to the COVID-19 epidemic situation, online technical webinars were adopted instead of face-to-face seminars. The Sub-committee had organized/ co-organized a total of ten (10) technical webinars in the Session. There were more than 300 attendants on average for each event. Local and overseas experts in various areas of electrical engineering were invited to give the state-of-the-art developments in the field. The programme themes ranged from traditional electrical systems such as integrated energy storage system and the revolution of low voltage industry, to future innovations like emMiC, AIPV and industrial cyber security. All webinars and sharing received enthusiastic support and served to foster continuous professional development of our members.

Date	Topic	Speaker(s)
18 Aug 2020	Renewable Integration Using Energy Storage	Dr. George Garabandic
15 Sept 2020	How new technology could help Electrical Engineers throughout the Building Life Cycle	Ir Ian Lee
8 Oct 2020	Pathway to Growth of Solar Power in Hong Kong	Mr. Barry Chu & Mr. Roger Yang
17 Nov 2020	Optimizing people flow in a building	Mr. Karl Tang
15 Dec 2020	Drive into the World of EV Charging	Mr. Siddhant Gupta
19 Jan 2021	Digitalise Electrification - The Revolution of Low Voltage Industry	Mr. Keith Wong
23 Feb 2021	First Electrical and Mechanical Modular Integrated Construction (emMiC) and Air Improvement Photovoltaic (AIPV) System in Hong Kong	Ms. Gigi Kam & Mr. Tony Ip
3 Mar 2021	Modernization on Lift Safety	Ir KL Lee
30 Mar 2021	Industrial Cyber Security	Mr. Beat Kreuter
21 Apr 2021	Achieving Net Zero: The Role of Mitigation	Ms. Ding Li, Mr. Alan Hung & Ir Paul Chan

Electrical Division
電機分部

4. **Membership Drive Sub-committee (Chaired by Ir Ian Lee)**

Five (5) online membership drive presentations were organised by the Sub-committee in March and April 2021 for students of University of Hong Kong (HKU), The Hong Kong Polytechnic University (HKPolyU), School of Professional Education and Executive Development (SPEED), Technological and Higher Education Institute of Hong Kong (THEi) and the Hong Kong Institute of Vocational Education (IVE) in Chai Wan, Tsing Yi and Haking Wong.

The presentations included an introduction on the HKIE and the HKIE Electrical Division, career opportunities in the sectors of Government, power utilities, consulting and contracting, and the need and path of joining membership of the HKIE. The Sub-committee also jointly organised a presentation with the HKIE Young Members Committee (YMC) to help the candidates to prepare for the professional assessment interview.

5. **Energy Innovation for Smart City Competition 2020/2021 (Chaired by Ir Kit Chan)**

The programme was sponsored by the CLP Power Hong Kong Limited and the Division has been co-organising this event yearly since 2009 for higher form secondary students. It aims 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 “Energy Innovation for Smart City Competition” to give more focus on smart use of energy in a modern city.

Nearly 100 applications joined the Competition in 48 teams this year to develop their ideas into projects. Screening exercise was held on 17 April 2021. Teams were interviewed online and answered the questions raised by the judges on the project details. The screening exercise shortlisted 15 teams for final competition on 15 May 2021.

6. **Electrical Model Design Contest (Chaired by Ir Stephen Yip)**

For the past 9 years, the Division had been organizing a contest for lower form secondary school students with the aim of promoting electrical engineering, enhancing the knowledge and awareness of renewable energy and encouraging low carbon living among them. After the cancellation of the event in Session 2019/2020 due to the COVID-19 pandemic, the Division continued to organise the same event with the main theme of “Solar Energy” in Session 2020/2021. The event was being supported by the Education Bureau and Construction Industry Council (CIC). Even under difficult situation of COVID-19 pandemic, overwhelming application responses were received from 75 lower form secondary school students in 19 teams for the Contest. The event would be held at Zero Carbon Building of CIC on 9 May 2021.

7. **International Council on Electrical Engineering (ICEE) Conference**
(Led by Ir Dr. Edward Lo)

The ICEE Conference is an event jointly organised by the Hong Kong Institution of Engineers (HKIE), the Chinese Society for Electrical Engineering (CSEE), the Institute of Electrical Engineers of Japan (IEEJ) and the Korean Institute of Electrical Engineers (KIEE). The purpose was to offer a very good and precious opportunity for electrical engineers from all over the world with various specialties to meet with and inspire each other, and share vision towards our sustainable future.

Electrical Division
電機分部

The ICEE originally planned to be hosted by the IEEJ in Takamatsu, Japan from 28 June to 2 July 2020 was cancelled due to the threat of widespread of COVID-19 pandemic. The next ICEE Conference would be hosted by the CSEE in Dalian, China in hybrid (both online and on-site) mode from 5 to 8 July 2021.

8. **Professional Short Course in Electrical Engineering** (Chaired by Ir Vincent Leung)

The professional short course with four classes on the theme of “Latest Regulation and New Technology in Electrical Engineering” was held in March to April 2021.

Experienced engineers, lecturers and industry practitioners from academic institution, government department, contractors, suppliers and utility power company were invited to give our members updated knowledge of technology and regulations in electrical engineering. Four (4) classes of the course were arranged as online broadcasting in view of the current pandemic situation in Hong Kong. It was encouraging that over 100 participants on average attended each class of the course.

11 Mar 2021	Class 1:	MEP Design Approach and IoT Solutions for EV Charging Facilities
15 Mar 2021	Class 2:	Smart Energy: The Digital Era of Low Voltage Assemblies
25 Mar 2021	Class 3:	Major Revisions of Code of Practice for the Electricity (Wiring) Regulations 2020 Edition
1 Apr 2021	Class 4:	PV System Design and Performance Optimization

9. **Annual Dinner** (Chaired by Ir YH Leung)

The Annual Dinner which was scheduled right after the Division AGM on 30 April 2021 to provide an opportunity for annual gathering of members was cancelled due to the COVID-19 situation.

10. **Local Technical Visit Sub-committee** (Chaired by Ir Andrew Yan)

Due to the outbreak of COVID-19 and the implementation of anti-epidemic measures and social distancing requirements of the Government, no local technical visit could be arranged up to end April 2021. Subject to the relaxation of anti-epidemic measures, technical visit to some newly commissioned infra-structure projects would be arranged in May and June 2021.

11. **Overseas Technical Visit Sub-committee** (Chaired by Ir Edward Yeung)

An overseas technical visit to Russia had been planned from 23 May to 3 June 2020, and 42 participants had enrolled. However, the scheduled trip was postponed due to the global outbreak of COVID-19. The overseas technical visit could only be resumed when the pandemic situation improves and international travel is allowed.

Electrical Division
電機分部

12. **Mainland China Technical Visit Sub-committee** (Chaired by Ir WS TAM)

Similar situation as the Overseas Technical Visit, the Mainland technical visit which was planned in September 2020 was cancelled due to the outbreak of COVID-19. This event could only be resumed when the pandemic situation improves and restrictions on cross border travel are further relaxed.

13. **The HKIE Boards and Committees**

The Division was actively supporting and participating in the work of the HKIE and had representation/ ex-committee members in the following Boards and Committees:

- Learned Society Board (represented by the Chairman, Ir WS Tam)
- Public Service Committee (represented by the Deputy Chairman, Ir YH Leung)
- Council (represented by Ir YH Chan)
- Discipline Representative (represented by Ir Dr. Edward Lo)
- Continuing Professional Development Committee (represented by Ir Raymond Sze)

14. **Learned Society Board (LSB)** (Represented by the Chairman, Ir WS Tam)

Ir WS Tam represented the Division to participate in the LSB to coordinate learned society activities and provide recommendation to the Council at strategic level.

15. **Public Service Committee (PSC)** (Represented by Ir YH Leung)

The Public Service Committee is responsible to the Learned Society Board for developing and co-ordinating public relations policies; reviewing/ revising these policies from time to time and enhancing the HKIE's public image. In addition to the tasks in school ambassadors programme, editorial contributions, relationship with District Council etc., two working groups of the Public Service Committee were overseeing the co-ordination and planning of these activities.

16. **Council** (Represented by Ir YH Chan)

Ir YH Chan represented the Division in the HKIE Council for Session 2020/2021 updating Division members of the implementation of the Council's policy and direction.

17. **Discipline** (Represented by Ir Dr. Edward Lo)

Ir Dr. Edward Lo is the Discipline Representative who chairs the Electrical Discipline Advisory Panel. Being responsible to advise on aspects in relation to Qualifications and Professional Membership, major tasks of the Discipline in Session 2020/2021 including reciprocal recognition agreement of professional qualification between professional bodies, accreditation of engineering-related Bachelor and Master degree programme in Hong Kong and overseas, etc.

18. **Continuing Professional Development Committee (CPD)** (Represented by Ir Raymond Sze)

Ir Raymond Sze represented the Division in the CPD Committee and provided update to Division members on all matters relating to CPD requirements.

Electrical Division
電機分部

19. **Publication and Communication with Members** (Chaired by Ir Stanley Leung)

Ir Stanley Leung served as the authorised representative of the Division to coordinate, notify and publish activities, events and event reports of the Division, via the HKIE eNewsletters, the journal of the HKIE (*Hong Kong Engineer*) as well as the divisional website (<http://el.hkie.org.hk>).

20. **Concluding Remarks**

The Electrical Division has a fruitful and successful Session 2020/2021 with the Committee Members' effort and contribution despite the challenges of the COVID-19 pandemic throughout the past year. The Committee organized and completed technical events including symposium, conferences, technical webinars, professional short courses etc., for broadening our members' technical knowledge to keep pace with the latest technologies.

Professional talks were organised for universities and higher education institutions to share our members' working experience with students in different sectors of electrical industries, and to provide students with a wide range of career information for career choices and job application. The talks also introduced the HKIE and encouraged the students to participate in the HKIE's activities.

Energy Innovation for Smart City Competition and Electrical Model Design Contest were organised and conducted for secondary school students to promote energy saving, understanding on the application of renewable energy in modern city and to arouse students' interest in electrical engineering.

In addition, the Division was actively supporting the initiatives and participating in the events of the HKIE to enhance the Institution's status and public image. The Division was also nominating our Committee members to join the External Boards and Organisations for enhancing professionalism and standard of the works in electrical industries.

Being the Chairman of this Session, I would like to thank the Past Chairmen and Committee Members for their guidance, dedication, contribution and commitment to the Division. Without their unfailing support, I would not be able to lead the Division through this challenging and yet successful session. In the meantime, I would also like to extend my sincere thanks to our members and sponsors for their continuous support in the Division's activities.

Last, but not least, I am confident that the Electrical Division will be able to upkeep the momentum in serving the electrical engineering stakeholders in the coming sessions.



(Ir WS Tam)

Chairman, Electrical Division Session 2020/2021
30 April 2021

Electrical Division
電機分部

Electrical Division Committee Session 2020/2021

Chairman	Ir WS TAM	
Immediate Past Chairman	Ir Tony YEUNG	
Deputy Chairman	Ir YH LEUNG	
Honorary Secretary	Ir Bryan PONG	
Honorary Treasurer	Ir YK CHU	
Members	Ir Walter AU Ir Kit CHAN Ir Alex FU Ir Steve CHAN Ir Ian LEE Ir Joseph LEUNG Ir Mandy LEUNG	Ir Hugo CHAN Ir Stephen YIP Ir Stanley LEUNG Ir Raymond SZE Ir Andrew YAN Ir Yani KO Ir Vincent LEUNG
Ex-officio Members	Ir YH CHAN Ir Dr. Edward LO Mr. Indi WONG Ms. Amanda LEUNG Ir Simon TSUI	(Council Member (Division)) (Discipline Representative) (AMC Representative) (YMC Representative) (SSC Representative)
Co-opted Members	Mr. Keith WONG Ir Banson LAM	Ir Tom LEUNG
In Attendance	Ir TK CHIANG Ir CF CHAN Ir Dr. FC CHAN Ir Geoffrey CHAN Ir Simon CHUNG Ir CL LEUNG Ir Sai King HO Ir Siu Kwong HO Ir Gary KO Ir Albert TO Mr. Henry CHAN Mr. Jason CHAN Ir Dr. Ken CHAN Mr. Sheung CHAN Mr. Jackie CHOI Ir WI HO Ir Ben LAM Ir CL WONG Ms. June YIP Ir Dr. Tony LEE Ir WK LEE	Past Chairman as advisor Past Chairman as advisor Past Chairman as advisor Past Chairman as advisor Past Chairman as advisor Past Chairman as advisor Past Chairman as advisor Past Chairman as advisor Past Chairman as advisor Past Chairman as advisor Past Chairman as advisor Mr. Stan MOU Ir Henry NGAI Ms. TT SUEN Ir WH YAN Ir Edward YEUNG Ir SS TANG Ir Sherman TONG Mr. Smith TSAI Mr. Franky WONG Ir Dr. KC WONG Ms. Karen WONG

Electrical Division
電機分部

Ms. Jenny LIN
Ms. Jacqueline LO

Ir Gordon WOO