

**ENVIRONMENTAL DIVISION
ANNUAL REPORT FOR SESSION 2014/2015**

Chairlady's Message

I am honoured to serve as the Chairlady of the HKIE Environmental Division to HKIE members since July 2014. With the strong and solid foundation laid by the predecessors, an organisation structure well established under their chairmanships enabled me to operate the Division in a highly efficient way.



This year the Environmental Division works closely with HKIE Headquarters to promote and echo the theme “Inspire the Young”. We expanded the Job Shadowing Programme from secondary schools in the past to higher education institutions this year. For the technical aspects, solid waste treatment and management, water and wastewater technology, air quality and climate change, green building, circular economy and energy efficiency are the highlights of the year. With these in mind, we successfully organised activities for HKIE members, focusing on the state-of-the-art technologies and their integrated technology solution for problem solving in achieving environmental targets and improving environmental quality. Our two full-day workshop on the application of building information modelling (BIM) on environmental protection held in March 2015 truly demonstrates our enthusiasm to train our members in new technology and practical application.

It is my great privilege to work closely with a good team of committed committee members. With their unfailing support, we arranged a diversified programme with numerous activities for various stakeholders. For example, we partnered with 5 private and public sectors for the Job Shadowing Programme for students, invited an academic faculty and a private industry for offering the BIM workshop for practicing engineers, organised a 1-day Annual Forum exploring the potential breakthrough of environmental industry in HK and introducing the new concept of circular economy and other drivers for a new wave of environmental industry, and organised the environmental paper award for recognizing engineers' efforts in environmental research and projects. This session is fruitful in terms of both quality and quantity, similar to previous years. We trust that these events were beneficial to our members and the community at large. Apart from the above, we often work with other divisions/associations in co-organising or supporting their activities. This form of collaboration has proved to be a synergy for mutual benefits of our members. I also highlight some of our events in the “Activities” Section.

Last but not least, I would like to express my heartfelt thanks to all committee members, our collaborating associations and the HKIE Secretariat, without their endless support this session would not be successful. As we embark on the next stage of Environmental Division's journey under a new Chairman, I look forward to your continued support to our activities. I would certainly value any points you raise for betterment of the profession of environmental engineering.

Ir Prof Irene LO Man Chi
Chairlady of the HKIE Environmental Division (2014-2015)

The Committee

The Committee of the Environmental Division includes the following members who have greatly contributed to discussions and organising various activities for the Division in this Session. A number of young helpers also sit in at regular meetings.

Committee Members

Ir Prof Irene LO Man Chi	Chairman, LSB Representative
Ir IP Tat Yan	Immediate Past Chairman
Ir LO Pak Cheong	Deputy Chairman
Ir Dr Shelley ZHOU Wenwen	Honorary Secretary
Ir Flora MOK Yee Ting	Honorary Treasurer
Ir LAM Chi Sing	Committee Member, CSC Representative
Ir Stephen LEE Ming Ching	Committee Member, CPDC Representative
Ms Catherine LEUNG Wai Man	Committee Member, PRC Representative
Ir Elvis AU Wai Kwong	Committee Member
Ir Herman AU Tak Ki	Committee Member
Ms Jacqueline CHAN	Committee Member
Mr. Benjamin LAM Yau Bun	Committee Member
Ir Anthony KWAN Lok Fong	Committee Member
Ir LEE Ping Kuen	Committee Member
Ir Dr Louis LOCK Fat Shing	Committee Member
Ir Kenny WONG Siu Wai	Committee Member
Ir Andrew YUEN Ngau Yin	Committee Member

Ex-officio and Co-opted Members

Ir Prof POON Chi Sun	Ex-officio Member – Discipline Representative
Ir LAM Cheuk Fung	Ex-officio Member – Council Member (Division)
Mr. Patrick LEE Wood Wei	Ex-officio Member – AMC Representative
Mr. Ambrose CHEN Hao Ting	Ex-officio Member – YMC Representative
Ir Norman C P CHENG	Co-opted Member
Ir C M CHOI	Co-opted Member
Ir Kelvin S K TANG	Co-opted Member

Helpers

Ir Dr Alicia K J AN	Helper
Mr. Kevin CHAN Wai Kit	Helper
Mr. Ted YEUNG Tit Yu	Helper
Miss Nikita CHAN Ho Hoi	Helper
Ir Dr Alex Enagnon GBAGUIDI	Helper
Dr Dickson YAN	Helper
Ir Samuel LIP	Helper
Mr. Tahoe CHOW	Helper
Ms Mandy WONG Sze Man	Helper
Ms. Trista LAU Tai	Helper

Publication in HKIE Monthly Journal

We continue to act as a coordinator which works closely with potential writers for preparation of articles related to climate change issues from different perspectives for publication in Climate Change Corner under HKIE monthly journal. Apart from these, we also achieved the target of preparing two articles about the activities organised by us with a view to promoting sharing and communication among members. Young members are awarded with book prize coupons if their articles are selected for publication.

HKIE Environmental Division Website

The HKIE Environmental website (<http://ev.hkie.org.hk/>) has performed an excellent function in keeping members up-to-date with major and important events. These include the activities for which we are the supporting organisation. The photos and the PPT files presented in the seminars can be downloaded from the website to facilitate easy sharing useful information.

The photo gallery stores photos taken in the current and past activities were unloaded for sharing among members, which brings back wonderful memories and joyful moment in the various event and activities.

Finance

The Environmental Division Committee began the 2014/2015 financial year with a balance of HK\$336,798.70 and received a total allocation of HK\$119,917.00 from the HKIE Headquarters. The Division's account held a total of HK\$431,574.43 by the end of March 2014. The status of EVD's Accounts is considered healthy. According to the Rules for Division Accounts, after the Division has received its "End of Year Account" for the 2014/2015 financial year from the HKIE Headquarters, two assigned Corporate Members will audit the account. After the audit, the account will be available for inspection.

Activities

In addition to organising high quality technical meetings and visits, in this session we also involved in other activities, such as making presentations to professionals and general public, attending and responding to consultations, and representing HKIE on external committees / panels so as to further boost up the professional standing of HKIE Environmental Division. The activities organised and co-organised by the Committee are summarized in the **Annex 1 and 2** of the report. Some signature activities of this session are highlighted below:

The Annual Reception was held on 17 October 2014 at Craigengower Cricket Club with Ir Cary CHAN as the Guest of Honour who shared his experience and views on green practice and how to nurture the young engineers in this field. There were over 120 participants attending the reception.

We organised the Job Shadowing Programme and extended the out-reaching from high school to tertiary education students in this Session, and thus we received over 100 students from 3 higher education institutions and 2 secondary schools attending this Programme. With the support from 5 host organisations/companies, namely CLP Power Hong Kong Ltd., Swire Group, Hong Kong Productivity Council, Environmental Protection Department and Hong Kong Electric Co., Ltd., the programme provides an opportunity for young people to explore first-hand skills needed to succeed in today's and future job markets and to enhance their environmental awareness. The programme was welcomed by the students, who have expressed strong interest in the environmental engineering profession and they were also able to appreciate the knowledge and ability required to develop their careers as environmental engineers.

A 2-day workshop on Building Information Modelling (BIM) in Environmental Protection, with Hong Kong Construction Industry Council (HKCIC) as our supporting organisation, was held on 24 (Tue) and 25 (Wed) March 2015. The workshop is the first of its kind in Hong Kong or even in the world, focusing on the environmental applications with hands-on exercises on the use of BIM for reduction of water consumption, carbon footprint and energy use, minimization of C&D waste, and application of computational fluid dynamics for air ventilation. The workshop was well received by the participants.

The Annual Forum entitled "The Future Directions and Breakthroughs of Hong Kong's Environmental Industry" was held at the Hong Kong Convention and Exhibition Centre on 17 April 2015. It aimed to promote and facilitate the discussion on the future direction of environmental industry in Hong Kong by bringing together various stakeholders including professionals and experts, academics and research institutions, businesses and policy makers. The Forum comprised the keynote session and four other sessions including (1) regional perspectives on the overseas experiences of environmental industry; (2) green business in Hong Kong; (3) circular economy as a cross-cutting policy driver for growth and development of environmental industry; and (4) a closing panel discussion on future direction of environmental industry in Hong Kong. This year we break a record and bring in a new feature by getting the highest registration and sponsorship as well as establishing green event guidelines for organizing a low carbon or carbon offset and green event, respectively. A

technical report for this seminar will be posted on the website of HKIE Environmental Division for sharing among the community at large.

The 2015 Environmental Paper Award was organised to recognize engineers' efforts in any environmental research and projects in environmental pollution control and sustainable development. This year we received an overwhelming submission from academics, private and public sectors on various topics from management to technology development such as carbon footprint reduction, waste to renewable energy, energy saving in buildings, solid waste management, water and wastewater treatment, waste separation and recycling. This Award is intended to encourage widespread emergence of environmentally sound projects.

Public Consultation

We offered our views and comments to the following consultation papers

- Future Fuel Mix for Electricity Generation (June 2014)
- EIA Report for the Expansion of the Hong Kong International Airport into a Three-Runway System (July 2014)
- Consumer Council's Study of the Hong Kong Electricity Market (Jan 2015)

Environmental Discipline Advisory Panel

This was a fruitful year for the Discipline Advisory Panel (DAP) in terms of membership as the Discipline has nearly 300 members as at Mar 2015. The Panel held five meetings in this session. Apart from processing various qualification and training matters and degree programme accreditation, the Panel also worked on several key issues including:

- Contributing to the HKIE Working Group on the Implementation of Competence Based Approach in Assessment of Experience and Professional Competence;
- Disseminating the guideline on professional assessment criteria to assessors following the briefing session on 15 Feb 2015;
- Contributing to the accreditation of the new 3-3-4 engineering degree and IVE HD course curricula;
- Contributing to Task Force on Minimum Core Subjects required for a Discipline; and
- Recruited new Panel members contributing to DAP work.

Annex 1– Schedule of Activities: technical seminars, meetings/forum, visits, and training course/workshop/symposium organised / participated by Environmental Division in 2014/2015

Date	Title
8-9 Jul 2014	Soft-landing Series: Technology-Industry Matching Seminar on International Consumer Electronics Innovations
12 Jul 14	Technical Forum: Airport Three Runway System EIA
23 Jul 14	Technical Seminar: Tolerance of Activated Sludge to Cadmium, Zinc and Nickel
28 Jul 14	Workshop on Environmental Product Declarations and Life Cycle Analysis for LEED V4
31 Jul 14	Technical Seminar: Algal-based Technology with Semi-continuous System for Biomass Cultivation and Nutrient Removal in Photobioreactor from Primary Settled Sewage
18 Aug 2014	Training Course: Construction Industry Council Carbon Labelling Scheme for Construction Products Awareness
19 Aug 2014	Training Course: Construction Industry Council Carbon Labelling Scheme for Construction Products Auditor-for Steel
20 Aug 2014	Technical Seminar: U.S. Green Building Council's LEED in Greater China
25 Aug 2014	Technical Seminar: Micro-mini Pulsed Electric Field Technology for Point-of-Use Disinfection of Tap Water
26-28 Aug 2014	IAS Symposium on Activated Sludge – Past and Next 100 Years
19 Sep 2014	Technical Seminar on Declared and Graded Historic Bridges in Hong Kong
20 Sep-9 Nov 2014	The International Coastal Clean-up – Hong Kong 2014
23 Sep 2014	Implementation of District Cooling System at Kai Tak Development
27 Sep 2014	Technical Visit to XRL at Mai Po to SZ section
30 Sep 2014	Symposium: Soundscape-shaping Better Acoustical Environment for Hong Kong
9 Oct 2014	CLP Power Green Building Symposium 2014
10 Oct 2014	Chinachem Sustainable Development Conference 2014 Venue: L'hotel Nina et Convention Centre
13 Oct 2014	Seminar on Energy Efficiency under Climate Change Uncertainty
18 Oct 2014	Technical Seminar: "Exploring Alternative Fuel Vehicles in Hong Kong – Seminar 2: Electric Vehicles"
22 Oct 2014	Technical Seminar: Turning Waste Glass Bottles to Eco-friendly Construction Materials
28 Oct 2014	Technical Seminar: Technology and Development of Green Refrigerants for HVAC
30 Oct 2014	Canadian Environment & Green Building Mission Partnering Seminar
1 Nov 2014	Technical Visit to CLP Power's Castle Peak and Black Point Power Station
Nov/Dec 2014	Forum on "Experience Sharing of Water Conservation Measures from Hotel and Catering Industries"
8 Nov 2014	Technical Visit to Odour Assessment Lab at Poly University
12-14 Nov 2014	DSD International Conference 2014 on Sustainable Storm water and Wastewater Management
19 Nov 14	Technical Seminar: Wastewater Treatment Plant Upgrading in Shanghai
25 Nov 2014	Technical Seminar: From Sustainable Building to Net Zero Impact – Swire Sustainability Case Study
27 Nov 2014	Technical Seminar: Sustainable Stormwater Management through Low Impact Development
27-29 Nov 2014	Conference: Urban Adaptation to Climate Change – Building Resilience in Hong Kong and Asia's Major Cities
27-29 Nov 2014	工程師大會 (澳門論壇)
29 Nov 2014	Technical Visit to Hysan Place
5 Dec 2014	Best Practices for Waste Reduction and Management in Hong Kong

Date	Title
	Venue: Business Environment Council Building
10 Dec 2014	Technical Seminar: Sewage Treatment in Hong Kong: Past, Present and Future
18 Dec 2014	Technical Seminar: Key Success Factors in implementing ISO50001 Energy Management System
13 Jan 2015	Conference on Intelligent Systems, Structures and Facility 2015 (ISSF 2015 Conference)
24 Jan 2015	Forum on Food Waste Management in Hong Kong
24 Jan 2015	JCEIA Annual Conference: Municipal Solid Waste
27 Jan 2015	Technical Seminar: Membrane Technology for Clean Water, Energy, and Beyond
12 Feb 2015	Technical Seminar: Exhaust after Treatment Technology for Emission Control of Diesel Engines
16 Feb 2015	Technical Seminar: Simulation of Near-field and Far-field Dispersion of Pollutants in Coastal Waters
28 Feb 2015	Open Forum on Voluntary Health Insurance Scheme (VHIS) (「自願醫保計劃」公開論壇)
7 Mar 2015	Technical Visit: Heavy Vehicle Emission Testing and Research Centre
14 Mar 2015	Technical visit: Hong Kong-Zhuhai-Macao Bridge, Hong Kong Boundary Crossing Facilities
18 Mar 2015	Technical Seminar: Engineering for Green Building
20 Mar 2015	Regulatory Compliance for Environmental Legislation of Hong Kong (2 nd intake)
24-28 Mar 2015	CIWEM HK Study Mission 2015 – Environmental Management and Facilities in Qingdao, China
24-25 Mar 2015	Training Workshop: Application of Building Information Modelling in Environmental Protection Venue: HKCIC Centre, Computer Room
26 Mar 2015	Technical Seminar: Testing, Inspection and Certification Services on Environmental Monitoring in Hong Kong
28 Mar 2015	HKIE Engineering and You Programme 2015
1 Apr 2015	Technical Seminar: DSD Happy Valley Underground Stormwater Storage Scheme
11 April 2015	Technical Visit: Hong Kong's first commercial-scale standalone Renewable energy (RE) generation and storage system
18 Apr 2015	Technical Visit: DSD site in Happy Valley
9 May 2015	Technical Visit: Central - Wan Chai Bypass and Island Eastern Corridor Link on
16 May 2015	Technical Visit: HK Electric Smart Power Centre and Power Quality Centre

Annex 2– Schedule of Activities: technical seminar, forum/conference, and training course co-organised by Environmental Division in 2014/2015

Date	Co-organised activities	Other organisers
21 Aug 2014	Technical Seminar: E-saving Technology “Heat and Chill Recovery” for Laundry	CAD & AMC of HKIE
9 Oct 2014	Technical Seminar: Odour Pollution and Odour Impact Assessment in Hong Kong	CAD, ITD & AMC of HKIE
10-11 Oct 2014	Forum: 第七屆粵港澳可持續發展研討會	CAD & CVD of HKIE and 廣東省科協及澳門工程師學會
15-16 Oct 2014	Conference: 5th International Conference on Energy – Sustainable Energy Policies and Technologies	BSD, EGD, CityU & EI
22 Nov 2014	Forum: 「國家環境保護法規」論壇 國家環境保護部政法司法規處副處長:李靜雲女士	HKGSA
10 Dec 2014	Technical Seminar: Management Options for Energy-from-Waste: Air Pollution Control Residues	PolyU & HKWMA
5 Jan 2015	Technical Seminar: An Overview of the Physical and Urban Environment of Hong Kong Waterfront	CAD & AMC of HKIE
21 Jan 2015	Technical Seminar: An Overview of the Physical and Urban Environment of Hong Kong Waterfront – Part II	CAD and AMC of HKIE
6 Feb 2015	Technical Seminar: Young or Ready Series 2: A Route to become a Professional Environmental Engineer	YMC of HKIE
21 Mar 2015	Technical Seminar: Sustainable Waste Management Policy and Implementation - Plastic Shopping Bag Levy and Others in the Pipeline	HKGSA, HKWMA, IMechE HK, CIWEM HK, HKBEE, BPA & HKPASEA
21 Mar-6 Jun 2015	Training Course: Waste and Environmental Management	HKWMA, IMechE & PolyU
16 Apr 2015	Technical Seminar: From Solid Waste Control to Sustainable Materials Management in Taiwan	NTU Alumni Association (Civil and Geology)