

# ASHRAE Link

Mar 2015



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## Presidential Message



On behalf of ASHRAE Hong Kong Chapter, I would like to welcome you all this year in joining ASHRAE as a member of this lifelong learning Institution with more than 54,000 members worldwide in more than 100 countries.

ASHRAE is one of the global leaders in supporting research and making standard for advancing the heating, ventilating, air conditioning and refrigerating system design and operation. Many of the design standards were widely adopted or referred worldwide, e.g. 90.1-Energy Standard for Buildings except Low-Rise Buildings; 189.1-Standard for the Design of High-Performance Green Buildings and HVAC Design Manual for Hospitals and Clinics, etc. Some of the standards were also referred in BEAM plus certification scheme in HK.

As an ASHRAE member, each of us is delegated to promote advanced technology and standard in order to shape our future built environment to be more green and sustainable.

Over the last 30 years, Hong Kong Chapter has been building up a strong network with the Industry and promoting highest standard training course and seminars for every one of you. We will continue to improve ourselves and serve you better. We will also prepare some more social activities for you and your family so as to encourage member to join the event and have fun with other ASHRAE members.

I hope you will enjoy the program this year. Wishing you all a Happy 2015 and hoping that we will meet with you in some of the coming events.

**Yours Faithfully,**

A handwritten signature in black ink, appearing to be "Thomas Chan".

**Thomas Chan**  
**President (2014-2015)**  
**ASHRAE Hong Kong Chapter**

## Retreat 2014-2015

Retreat for year 2014-15 was held in HKU Centennial Campus on 14 June 2014. At first, our Chapter President, Mr. Thomas Chan had a presentation about his planning in this year term. After that, he formed groups on discussion of 'Do more; Do Less; New Initiatives' among the topics of member communication, institutions liaison and Macau development. Committees discussed in the group and highlighted main issues on their views for discussion.

In second session, Dr. CS Wong introduced the Presidential Award of Excellence (PAOE). After the presentation, he modulated the group tasks on reviewing PAOE planning and brainstorming. Committees enjoyed the discussion and made short presentations to share their prospects on planning events in this year term with gaining the PAOE points efficiently.

Prepared by : Dr. CS Wong



## **Committee 2014-2015**

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*Technical Seminar on  
“Environmental Control in High Performing Buildings”  
by Mr. Brian P. Monk, The ASHRAE Distinguished Lecturer  
on 28 August 2014*

We are honored to have Mr. Brian P. Monk, The ASHRAE Distinguished Lecturer, to become our honorable speaker of the first DL Talk Series in the year of 2014-2015. The seminar is held on 28 August 2014 in the University of Hong Kong Centennial Campus. This seminar is organized by ASHRAE HK Chapter and supported by other four professional bodies (CIBSE-HKB, HKIE-BSD, SOE-HKR and Platinum).

The technical seminar highlighted environmental control system and its application in high performing buildings. Brian further discussed ANSI/ASHRAE Standard 62.1-2004, in its current form, which has two procedures to provide acceptable indoor air quality (IAQ) in buildings. These are the Ventilation Rate and Indoor Air Quality (IAQ) Procedures. This standard further endeavors to achieve the necessary balance between IAQ and energy consumption by specifying minimum ventilation rates and IAQ that will be acceptable to human occupants. He also explained and elaborated the Air Handling Unit design, with proper selection of air filters be considered to not only maintain adequate IAQ, but minimize static pressure drop and therefore AHU operations cost.

In the morning of same day, the Technical Seminar on “Hospital Filtration Systems and Airborne Contaminant Control” was co-organised with BEAM Society. The seminar presented the “Hospital Filtration Systems and Airborne Contaminant Control” by Mr. Brain P. Monk and “Airborne Transmission Route of the Exhaled Bio-aerosol Contaminants from Patients in SARS Isolation Wards” by Dr. Benny Chow.

Prepared by : Mr. Patrick Huang



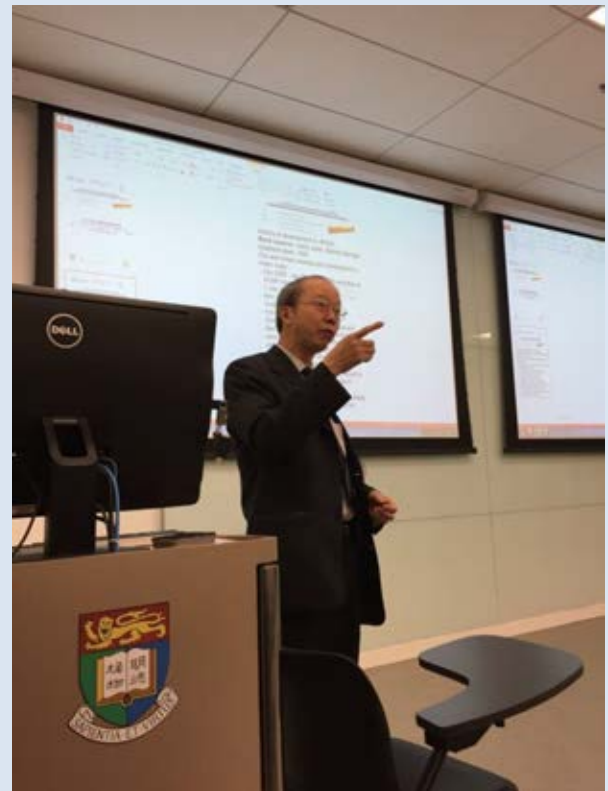
*Technical Seminar on  
“HKSAR is going for integrated Underground + Aboveground development:  
The challenge for Engineers”  
on 24 September 2014*

The seminar was held on 24 September 2014 in the University of Hong Kong and was delivered by Mr. KP Cheung, Associate Professor, Department of Architecture, HKU.

HKSAR government is going to adopt “Underground + Aboveground development” as a policy, for future HKSAR development, to make the optimized use of land, as HKSAR is seriously lacking land. HKSAR government has appointed consultants to study “Underground + Aboveground development” for the major parks of the city centre, for the Boundary Crossing Facility artificial island of the HK-Macau-Zhuhai Bridge near the airport, for selected areas of the HK-Shenzhen border areas at the many boundary crossing points, as well as other 40 locations in HKSAR district wide. This “Underground + Aboveground development” policy will also be used in all reclaimed land outside Victoria Harbour in the future.

This seminar presented the overall updated scope of this “Underground + Aboveground development” policy in HKSAR, and the related sustainable development challenges to ASHRAE members on planning of district sea water provisions underground developments, district cooling possibilities, underground ventilation innovations, overall energy saving optimization on “Underground + Aboveground development”, etc.

Prepared by : Mr. Patrick Huang



***Half-Day Course on “District Cooling & Heating Systems Central Plants” By Dr. William P. Bahnfleth  
on 27<sup>th</sup> October 2014***

The half-day course on “District Cooling & Heating Systems Central Plants” was held on 27th October 2014. We are honored to have immediate past president of ASHRAE, Dr. William P. Bahnfleth to deliver the half day course. He is the professor and the director of the Indoor Environment Center in the Department of Architectural Engineering at The Pennsylvania State University-University Park. Dr. Bahnfleth has been a member of ASHRAE since 1981 and is an ASHRAE Fellow and Distinguished Lecturer.

In the course, he described and demonstrated the design principles for an efficient, reliable district cooling/heating plant that serves multi-building facilities. He addressed each component of equipment and the relationship with other equipment within the plant. The course also reviewed the types of equipment and the choices available within a type such as chillers and the criteria for selection. Lastly the course covered a short discussion of special applications such as thermal storage, combined heat and power, and deep lake water cooling.

This course received positive replies with over 80 participants made full house of HKIE Headquarters. The organizer wish to thank all the committee members who have contributed to make the course a very successful function.



Prepared by : Mr. Patrick Huang



**5th Greater Pearl River Delta Conference on Building Operation and Maintenance**

As a long term supporting partner of the Macao Institution of Electrical & Mechanical Engineers (AEEMM), ASHRAE was invited to attend “the 5th Greater Pearl River Delta Conference on Building Operation and Maintenance Conference” on 28th November, 2014 in the Macao Science Centre.

Nowadays, there is a growing concern about climate change as well as greenhouse gas emission. The building operation and maintenance shall meet not only the building user needs in terms of function and comfort but also the social expectation such as low emission and less harmful to the environment. It is the trend and also the responsibility of the industry to develop the society in a sustainable way.

As suggested by the theme this year “Smart Management System in Building Facilities for Sustainability of Low Carbon Environment”, the conference focused on the application of innovative technology in building facilities management, use of smart building facility management system and formulation of the regulation/standard. Professionals and academics from Hong Kong, Macau and Guangzhou presented and shared their successful experience and key strategy toward zero-carbon.

It is a great pleasure for the ASHRAE representatives to exchange the knowledge and experience with the professionals from the Pearl River Delta during the conference. In addition, it is a valuable opportunity to strengthen our working relationship with AEEMM.



Prepared by:  
Mr. Gary Cheung





## Research Promotion (RP) Walk 2014

Organized by the Research Promotion (RP) committee, the captioned event was held on 25 October at Sai Kung National Geopark to raise money for the ASHRAE Research. There were 55 participants. Especially William Bahnfleth, Society Immediate Past President, and John Rieke, Society Research Promotion Committee Chair, joined this event as well. Over US\$11,000 was raised.



The event included boat tour of Sai Kung islands, cultural visit of fishermen village, country walk, and cleaning breach up. Through this event, the participants appreciated the unique region of imposing rich geo-diversity of Sai Kung coastline. In addition they gained an in-depth understanding about spectacular landforms and rock formations, and the importance of natural conservation.



On behalf of the RP committee, we would like to express our sincere thanks for the donors' contribution. The list of donors is posted on our official website (<http://ashrae-hkc.org/research.html>). And we look forward to organizing various events to have more fundraising to our ASHRAE Research in the coming year.

Prepared by: Mr. Jacob Yiu



## 8<sup>th</sup> Communication Meeting with Architectural Services Department

ASHRAE Hong Kong Chapter together with HKIE Building Services Division and CIBSE Hong Kong Branch were invited as Hong Kong Building Services Professional Bodies to have 8<sup>th</sup> Communication Meeting with Architectural Services Department (ArchSD) in Queensway Government Offices on 13<sup>th</sup> October 2014. Dr. CS Wong, Dr. Dennis Tung and Dr. Sam Hui were representatives on behalf of ASHRAE HK Chapter to attend the meeting.

The purpose of the meeting is to exchange the current development and future trends in Building Services among ArchSD and professional organizations. The meeting was chaired by Michael Cheung who was an Assistant Director (Building Services) of ArchSD. Building information modeling (BIM), sustainable building design, district cooling system at Kai Tak Development and updated status of “Plumbing Installation” contractors’ registration were introduced by the representatives of ArchSD. ASHRAE HK Chapter, HKIE Building Services Division and CIBSE Hong Kong Branch also updated the current and upcoming development on their professional aspects. Dr. Sam Hui briefed the ASHRAE’s latest publications and free resources provided. He also introduced in depth on the development of ASHRAE Standards 62.1, 90.1 and 189.1.

Prepared by: Dr. CS Wong



Group Photo (Left to Right): Dr. Dennis Tung (ASHRAE-HKC); Mr. SF Lam, Mr. WK Yiu, Mr. KC Mak (ArchSD); Mr. KY Leung (CIBSE-HK Branch); Dr. Sam Hui (ASHRAE-HKC); Mr. Michael Cheung (ArchSD); Dr. CS Wong (ASHRAE-HKC); Mr. WK Lam (ArchSD); Ir. Antonio Chan, Ir. Brian Cheng (HKIE-BSD); Mr. CM Chung (CIBSE-HK Branch)

## Hong Kong Joint Symposium 2014

The Joint Symposium 2014 jointly organized by The Hong Kong Institution of Engineers - Building Services Division, American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Hong Kong Chapter, The Chartered Institution of Building Services Engineers (CIBSE) Hong Kong Branch and the Department of Building Services Engineering of The Hong Kong Polytechnic University was held on 25<sup>th</sup> November 2014 at Kowloon Shangri-La Hotel. The main theme is “Chance in Building Services for Future”. We had invited Mr. Frank Fan Chan, JP, Director of Electrical and Mechanical Services, HKSAR Government as our opening address guest and also Ms. Ada Fung, JP, Deputy Director of Housing (Development & Construction), HKSAR Government as our keynote speech. We had brought together international and local speakers to foster all aspects of advances in building design and building services engineering. There were over 250 audiences to join the symposium. As one of the organizing committee, I truly believe most of our guests and participants had a valuable and glorious Tuesday during the day of event.



Prepared by: Ms. Sabina Chung



## Young Member Committee (YMC)

ASHRAE -YMC is a group of young engineers to promote ASHRAE to students and being a stepping stone for them to integrate in the engineering industry.

### Charity activity - Famine 30 (13-14 April 2014)

Famine 30 is also one of our responsible activities. To help people in development countries and areas in need, donations can provide essential micronutrients and seeds for harvesting, thus improving their health and life. Besides, the workshops during the 30-hour famine give us a chance into the poor, experience the difficulty of their life.



Charity activity - Famine 30

### Career Talk

(Date: 4 Nov 2014)

To enhance awareness of our society, we had performed career talk for students to understand different disciplines in the industry including contractor, client, supplier, consultant representative. Students had opportunity to discuss with representatives to have a clearer career development path.

### Technical Visit

(Date: 31 Jan 2015)

To enhance students' understanding on the latest development, operation and maintenance of the district cooling system, technical visit for young members and students will be arranged. Before touring around the District Cooling Plant, a representative from EMSD will provide an introduction to the overall design concept, benefits, facility operation and maintenance of the plant.

## Member activities - Squid hunting

**(Date: 6 August 2014)**

Besides, internal activities squid hunting for YMC members were also conducted to strengthen relationship between members. During the night, a boat was rent for party and squid hunting. Not only YMC members were invited and joined this activity, but also student members and associate members with their family were joined to build a connection between different generations.



YEA Night - Squid Hunting

## Member activities - Joint Society

### Christmas Party

**(Date: 13 December 2014)**

Besides, Joint society Christmas Party was hold provide a platform for young engineers in different societies including ICE, HKIE, IET, IMECHE, AES. During the party, members were free to chat with societies' members to know more about other societies. Besides, games and lucky draw were arranged to let members have a great night and a merry Christmas!



Joint Society Christmas Party

Prepared by: Mr. Ray Lam

## ASHRAE Study Tour

(Date: 10 – 17 August 2014)

ASHRAE Study Tour is one of the most popular activities for students. In 2014, there are 15 participants from different universities in Hong Kong who joined the Taiwan study tour from 10<sup>th</sup> August to 17<sup>th</sup> August 2014.



Laboratories tour at NCUT

During the study tour, lots of activities had been provided for students including technical seminars, visits and student programs such as the ASHRAE Chapter regional Conference (CRC). Different from last years, students joined the student summer camp held by National Chin-Yi University of Technology. During the student summer camp, they joined lots of activities such as the wind turbine design competition, the laboratories and research centres tours, the factory and power station visits.

After the summer camp, students took part in the conference in Taipei. They attended the technical seminar provided by ASHRAE and laboratories tours conducted by NTUT, joined the banquet dinner and visited the green library building in BeiTou. Apart from technical session, they also visited lots of famous tourist spots in Taichung and Taipei and have a chance to meet friends from different countries. During the banquet dinner, students from different countries prepared different performance to share their traditional culture.

CRC Study tour provides a good chance for students to broaden their views and they can meet friends from different countries and share their traditional culture and knowledge.

Prepared by: Ms. Ning Wong



## ASHRAE Career Talk 2014 (Date: 4 November 2014)

ASHRAE Career Talk 2014, which was organized by ASHRAE Student Activities Committee, was held at LT-11, Academic 1 Building, City University of Hong Kong on 4<sup>th</sup> November 2014. Representatives from each of client, consultant, contractor and supplier firms were invited in this career talk. Ir. Wilson Leung was the client representative, Ir. Dr. Alex Hui was the contractor representative, Ir. Ben Yuen was the consultant representative and Ir. Kelvin Tang was the supplier representative. All of them have great professional experience in Building Service, and they shared their experience with students and answered some questions from them.

Miss Margaret Wong shared some interview skills and her interview experience at the beginning of the Talk. Then, each representative shared their own experience and the specific requirement of their discipline. The talk ended with discussion among students and the speakers. On behalf of ASHRAE Hong Kong Chapter, the Chair of Student Activities Committee, Mr. Tenny Tam, presented appreciation certificate and expressed sincere thanks to all speakers for their valuable time.

Prepared by: Ms. Margaret Wong



Supplier representative- Ir. Kelvin Tang



Consultant representative- Ir. Ben Yuen



Client representative- Ir. Wilson Leung



Contractor representative- Ir. Alex Hui

## YEA International 2014 Kuala Lumpur, Malaysia (26 – 28 September 2014)

YEA international provides an opportunity for our young members—the future leaders of ASHRAE—to learn more about Society, develop soft skills and network with other young professionals. YEA international 2014 were held successfully in Kuala Lumpur, Malaysia this year. It was a great opportunity for our young members to join this event. Ms. Ashley Yiu and Mr. Taylor Chow were the representatives to join this valuable event.



Group photo of the YEA international 2014

In the first day, the coach Tricia taught us about the presentation skills. She also mentioned the importance of proper dressing in a meeting. Analysis tests were provided to help identify our characteristics and personal potentials in different aspects. After the test, I found that I am a resource allocator and coordinator. I really like to search for the information in different ways and communicate with my colleagues in solving technical problems. Tricia put emphasis on team work and helped us to identify a good manager and good leader. I really gained a lot from this workshop and also met many new friends from different countries.

YEA international 2014 gave us a valuable chance to meet other YEA members in Kuala Lumpur for a weekend, during which we social and leadership skills training. This was of great fun. This event is an opportunity for you—the future leaders of ASHRAE—to learn more about the Society, develop soft skills and network with other young professionals.

Apart from the YEA international event, I was invited to be the speaker of the ASHRAE membership promotion for the University of Malay's students which was held by student activities committee, membership promotion committee and YEA from ASHRAE Malaysia Chapter. There were more than 50 students joining this event.

Prepared by: Mr. Taylor Chow



Leisure gathering with ASHRAE Malaysia President Mr. Foo say jan



Group photo with University of Malay's students and committees from ASHRAE Malaysia Chapter



**Coming Up Events**

- 24 Mar 2015                      Joint Technical Seminar on “Engineering Design of Electrical Installation of District Cooling System (DCS) Kai Tak Development (KTD)”
- 31 March 2015                    The 31st Annual General Meeting  
Technical Seminar on “The New ASHRAE Design Guide for Tall, Mega Tall and Super Tall Building Systems”
- 8 April 2015                      3<sup>rd</sup> DL Talk By Kishor Khankari  
Seminar on “Design and Analysis of Natural Ventilation Systems”  
Seminar on “Airflow Management Best Practices for Data Centers”
- 8 April 2015                      Technical Seminar on Application of Computational Fluid Dynamics (CFD) for the betterment of Built Environment
- 8-10 April 2015                    CR Expo in Shanghai
- 17 April 2015                      RP Golf 2015
- 7 May 2015                        BEAM Affiliate Training and Examination Programme
- 5 June 2015                        ASHRAE HKC 31<sup>st</sup> Anniversary Dinner
- 26-27 June 2015                    Heilongjiang – Hong Kong Joint Symposium 2015:  
Building Technologies – An Epoch of Enlightenment
- 19-20 November 2015            The 13<sup>th</sup> Asia Pacific Conference on the Build Environment –  
NEXT GEN TECHNOLOGY to make Green Building Sustainable



## **Appreciation of Your Support of ASHRAE Research**

Research Promotion Committee would like to express our sincere thanks to the following donors who contributed the ASHRAE Research Funds in 2013/14.

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- CHU, Chun Ying
- CHU, Tak Wing
- HUI, Chun Man Sam
- LI, Siu Lam
- LO, Chan Kit Albert
- NG, Wai Keung
- PAU, Wai Keung
- TAM, Tsz Lung
- WONG, Man Chi Joao
- WOO, Hon Yue
- YIU, Yee Ming

### ***Honor Roll of US\$150 – US\$249***

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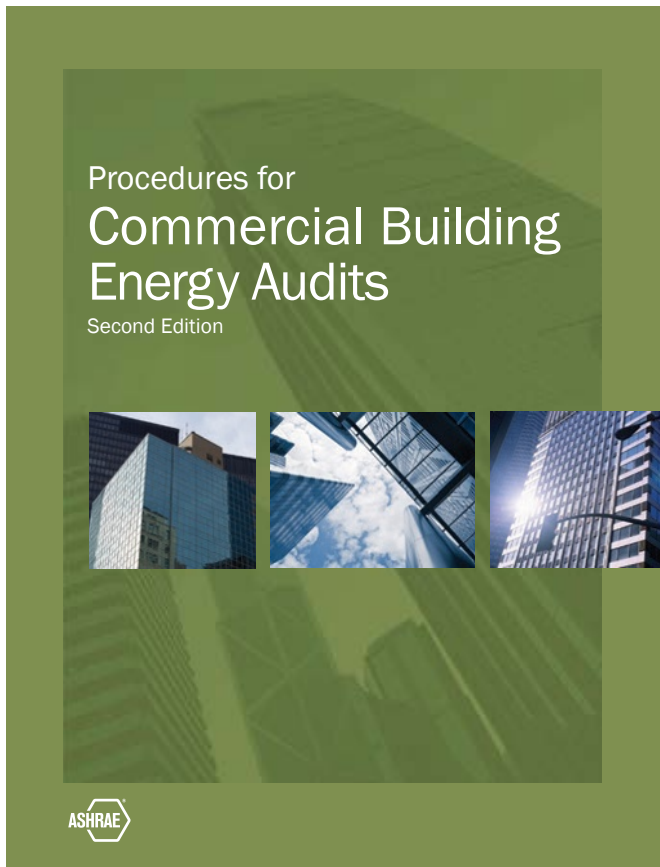
### ***Major Donor – Bronze of US\$500 – US\$999***

- TSUI, Ka Cheung Edward
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Dollars to each fund are for the resources of ASHRAE in the area of research, development of ASHRAE Learning Institute, the foundation of research endowed funds, young engineers in ASHRAE and scholarships.



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## Join us at ASHRAE's 2015 Annual Conference

June 27–July 1 | Atlanta, Georgia | [www.ashrae.org/atlanta](http://www.ashrae.org/atlanta)

Special first  
time attendee  
registration  
fee available!

Join ASHRAE in its hometown of Atlanta! Take advantage of the opportunity to discuss and examine the latest topics in the building industry, such as high performing buildings and modeling, through the technical program; participate in technical tours; attend ASHRAE Learning Institute courses; sit for an ASHRAE certification exam; and earn professional development credits.

**Conference Technical Program**—includes the third annual Research Summit, which brings together researchers to present and discuss the latest research. Tracks focus on the design, construction and operation of high performance buildings, specifically advanced design guidance, modeling, operation and optimization, and indoor air quality. Laboratories, refrigeration, fundamentals, applications, systems and equipment round out the program.

**Networking**—share ideas and learn from fellow members from your hometown and around the world.

**ASHRAE Learning Institute**—choose from two full-day professional development seminars and seven half-day short courses to stay current on new HVAC&R technologies.

**ASHRAE Certification**—to gain a competitive edge, apply by June 9 to sit for an ASHRAE Certification exam.

