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DRC's
 Message

Dear friends in Region XIII,

Welcome to a Happy and Exciting 2019. I sincerely look forward to the many activities coming in 2019 to foster our networking and comradeship and also for the benefits of our members in this region. Besides, the Society Winter meeting conference in January in Atlanta and Annual Conference Kansas City in June, we look forward to the CAR-ASHRAE Seminar in Shanghai in April and the 22nd CRC to be held in August, Chair by SK Chea in Bandar Sunway, Malaysia. Some other activities we can look forward to are the APCBE in Kaohsiung and the respective DLs programs and events centred around the Society theme for this year which is “ Building Our New Energy Future.” I look forward to the formation of other Chapters notably Myanmar and Vietnam Chapters in the near future assisted by Mr. Henry Yeo from Singapore.

I am sure most Chapters will also make full use of the Chapter Opportunity Fund to organise some events for the benefit of the members and perhaps increase membership or RP Fund.

As this will be my last few months as DRC in the Region, I would like to take this opportunity to say a big thank you to all for your dedication and commitment for your voluntary work.

Ng Yong Kong, P.Eng
 DRC, RXIII (2016-2019)

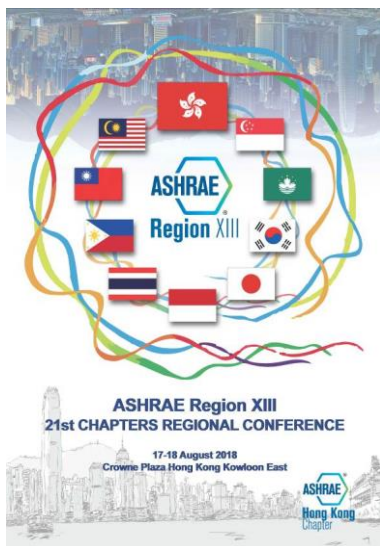
ARI · XIII
 ASHRAE Regional Intelligence

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21st Chapters Regional Conference & 1st Regional Planning Meeting for 2018-19 in Hong Kong



ASHRAE Region XIII 21st Chapters Regional Conference (CRC) hosted by Hong Kong Chapter was successfully held in Crowne Plaza Hong Kong Kowloon East on 17-18 August 2018. Over 400 persons from all over the world, including delegates from ASHRAE Headquarters, ASHRAE Region XIII (the Chapters are Hong Kong, Singapore, Malaysia, Taiwan, Philippines, Thailand, Indonesia, Japan, South Korea and Macao) and other countries like Australia, Vietnam and China. ASHRAE President and Vice President, Sheila Hayter and Mick Schwedler were also invited to attend this CRC.

Before the commencement of the CRC, Hong Kong Chapter organized the **1st Joint Chapters Research Promotion (RP) Sports Tournament – Bowling Competition** in the afternoon on 16 August 2018. The Bowling Tournament involved Chapter Team, Corporate Team and Student Team Competitions. There were total 10 teams, about 50 persons, participated in the competitions. After deducting all the necessary expenses, over US\$2,000 donation were contributed to the ASHRAE Research Promotion through this meaningful fund-raising event.



Welcome Reception was held in the evening on 16 August 2018. After Alan Lam, CRC2018 General Chair, welcomed all overseas participants to join the 21st Chapters Regional Conference, SH Wong, President of ASHRAE Hong Kong Chapter, announced the 35th Anniversary of ASHRAE Hong Kong and the coming celebration events.



On the first day of the 21st CRC on 17 August 2018, **Technical Seminar on 'Building Retro-Commissioning for System Optimization'** was held in the morning. Hoy R. Bohanon, ASHRAE Distinguished Lecturer, Ka-wah Kong, expert from Hong Kong Government and Cary Chan and Raymond Yau, local experts, were invited to share their valuable experiences on Building Retro-Commissioning to promote energy savings for Existing Buildings.



After the Technical Program, ASHRAE President, Sheila Hayter delivered her presidential speech in **Presidential Luncheon**.



Business Session 1 was arranged in the afternoon. After that, Orientation & Caucus Session and Asia Pacific Conference on the Built Environment (APCBE) Steering Committee Meeting were conducted.



Apart from the technical aspect, Hong Kong Chapter also arranged a whole-day **Spouse Tour**, so that the spouse could mingle together and enjoy the sightseeing around Hong Kong.



In the evening, **CRC Banquet Dinner** was arranged in Grand Ballroom of the Conference Hotel. Not only enjoying the delicious Chinese cuisine, the participants also enjoyed and participated the on-stage cultural performance by the students from every chapter of Region XIII. It was an unforgettable night for all participants.





On the second day of the CRC, Orientation & Caucus Session as well as **Women In ASHRAE (WIA) Session** were held in the morning.



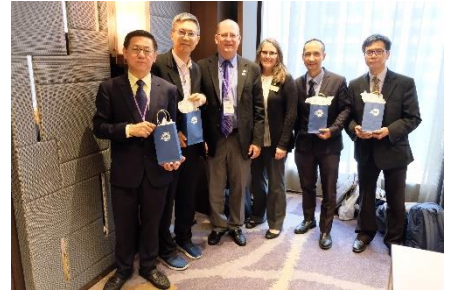
At the same time, **Committee Workshops** of Chapter Technology Transfer (CTT), Electronic Communications, Government Affairs, Membership Promotion, Refrigeration, Student Activities, Young Engineers in ASHRAE (YEA) and Centralized Training of Research Promotion were also conducted in order to provide trainings and operational techniques to the related committees of all chapters of ASHRAE Region XIII.



After the Committee Workshops, **Host Chapter Luncheon & Awards Presentation** was held. Representing the host chapter, SH Wong, President of ASHRAE Hong Kong Chapter delivered a welcome message to all participants of 21st Chapters Regional Conference. In order to appreciate the efforts made by the members, awards were presented to the committees of ASHRAE Region XIII serving for 2017-18 during the lunch.



In the afternoon, Chapter Operation & PAOE Workshop and Business Session 2 were organized, followed by the **CRC Review Meeting**. Hong Kong Chapter received many positive responses from the representatives from headquarters and regions. They congratulated the success of this CRC.



The **Student Program** of 21st CRC, consisted of Technical Seminar, Student Competition, Student Forum as well as Technical Tour, was held on 17-18 August 2018. The students visited the Waste Electrical & Electronic Equipment Treatment and Recycling Facility and Visitor Centre of EcoPark located in Tuen Mun, and Construction Innovation and Technology Application Centre and Zero Carbon Building located in Kowloon through the Technical Tour.



The **1st Regional Planning Meeting for 2018-19** was held after the 21st CRC on 19 August 2018 to discuss the regional issues of ASHRAE Region XIII.



APCBE Steering Committee Update

The **APCBE Steering Committee Meeting** was held in CRC 2018 Hong Kong on 17 August 2018 to discuss the general issues of APCBE and the incoming 15th APCBE 2019 held in Taiwan. In addition, Prof. Young Il Kim (South Korea), Prof. Fu-Jen Wang (Taiwan) and Dr. Thosaporn Katejanekarn (Thailand) have been elected with 3-year team (2019-2022) for APCBE Steering Committee members during Executive & Caucus Section.



The current APCBE Steering Committee and the successors are shown as follows:

APCBE Steering Committee	Position	Chapter	Year of the term	Period
Dr. Wong Chun- Sing	Chairman	Hong Kong	3-year	2017-2020
Mr. Ng Wei-Bin	Secretary	Malaysia	3-year	2017-2020
Dr. Yang Junjing	Member	Singapore	3-year	2017-2020
Mr. Wang Wei-Dong, Bill	Member	Taiwan	2-year	2017-2019
Dr. Chirdpun Vitooraporn	Member	Thailand	2-year	2017-2019
Dr. Ari Darmawan Pasek	Member	Indonesia	2-year	2017-2019
Mr. Tim Cheng	Member	Macao	4-year	2017-2021
Dr. Manuel C. Belino	Member	Philippines	4-year	2017-2021
Prof. Shinsuke Kato	Member	Japan	4-year	2017-2021
Successors				
Prof. Young Il Kim	Member	South Korea	3-year	2019-2022
Prof. Fu-Jen Wang	Member	Taiwan	3-year	2019-2022
Dr. Thosaporn Katejanekarn	Member	Thailand	3-year	2019-2022

15th Asia Pacific Conference on the Built Environment (APCBE)

The **15th Asia Pacific Conference on the Built Environment** with the theme of ‘5R Technology for Building Environment (Recycle, Reduce, Renewable, Resource, Retrofit) will be held on 18-19 October 2019 at 85 Sky Tower Hotel in Kaohsiung, Taiwan. The Organizing Committee Chair of 15th APCBE is Jui-Fah Chou and the Vice Chairmen are Yang-Cheng Shih, YuHao Derek Kang and Chia-Chi Hsu.

The important dates and deadlines of key dates are shown as follows:

- Abstract Due:
- Abstract Acceptance Notification:
- Submission of Full Paper or Extended Abstract Due:
- Full Paper or Extended Abstract Acceptance Notification:
- Final Paper or Final Extended Abstract Due:
- Early Registration Due:



- 31 May 2019
- 15 June 2019
- 15 July 2019
- 15 August 2019
- 30 August 2019
- 6 September 2019

YEA Leadership International (YLI) 2018

This year's YEA Leadership International (YLI) was held in Belgrade, Serbia, a city full of historical stories, traditional music and passionate people. Two of our representatives from Hong Kong, Billy and Pang, flew over 500 miles to join this annual event organized by ASHRAE YEA in October.

The 3-day workshop was led by a professional Business Coach, Tricia, who has long-term experience in coaching managers and future leaders. Other than Hong Kong, there were young engineers coming from UK, America, Abu Dhabi, Croatia and of course, Serbia. It was a valuable chance to meet and get to know other young engineers from different countries at the same time.



The workshop was divided into a few sections:

- Understanding the big picture
- Personal goals that go way beyond work
- What managers and leaders actually do
- How to stand out at work
- What successful people have in common

It was a truly enjoyable experience on both leadership development and socializing events. We encourage young engineers to grab the chance of joining YLI in future and start finding their own path in the beginning of their career.

ASHRAE Hong Kong Chapter YEA Committee (2018-2019)



Each session was filled with activities and advice that helped the participants understand themselves, define their goals and pursue their career. They also learnt how to develop their business profile by using LinkedIn, a powerful and massive business networking website widely used across continents and by many international corporates. The workshop was very informative and useful, especially for young engineers who have just started their career and are struggling to find their own career path.

Apart from the workshop, YLI had also organized sightseeing tours in the city so that the participants could learn about the history and civic development there. They had also arranged dinners at two traditional restaurants that are very popular among local and tourists.



Research Promotion Update

Mr Ong Ching Loon, RP RVC

We applaud Hong Kong Chapter for yet another remarkable CRC which was successfully concluded on 18th August 2018. Lots of thanks to all members of Hong Kong Chapter for the great hospitality and the well-coordinated programs of the 21st CRC.

As commended by Alice Yates, Director of Government Affairs of Society during the CRC, Region XIII has been the 1st region among the 15 regions to achieve Regional Full Circle. Without exception, we did it again this year! **A thank you** to all the 17 regional officers led by our DRC Ng Yong Kong for their exemplary leadership in contributing towards RP.

REGIONAL FULL CIRCLE AWARD (2018-2019)

No.	Title	Officer's Name*	Member #
1	DRC	Ng Yong Kong	5063084
2	Assistant Chair	Apichit Lumletpongpana	3026759
3	Regional Treasurer	Hsu Chia Chi	8013658
4	RMCR	Leong Cheng Wee	5029946
5	RVC for MP	Henry Yeo Seck Kan	8088781
6	RVC for RP	Ong Ching Loon	7976114
7	RVC for CTT	Yang Bing Chwen	5180686
8	RVC for GGAC	Sam Hui C.M	2038699
9	RVC for Student Activities	Manuel C. Belino	5220193
10	Regional Refrigeration Committee Chair	M. Idrus Alhamid	2033843
11	Regional Historian	Leong Siew Meng	5186459
12	Regional Nom. Comm.	Den Low Han Guan	5045769
13	Regional Nom. Comm. Alt.	Calvin Tang Chi Hang	5146056
14	Regional Nom. Comm. Reserve Alt.	Chayangu Nirun	5206964
15	RECC / Webmaster/ APCBE Chair	Wong Chun Sing	5183787
16	Regional Newsletter Editor	Albert Lin Wan Fuk	7991636
17	YEA Regional Coordinator	Tracy Pang Ching Man	8030353

Region XIII also hit another first in the history of RP through four (4) chapters having achieved Chapter Full Circle and Full Circle Plus during the CRC, 3 months ahead of deadline. **Congratulation and thank you !** to the President, President-Elect, Vice President, Hon Secretary, Hon Treasurer, RP Chair and PR Co-Chair of Hong Kong Chapter, Singapore Chapter, Indonesia Chapter and Malaysia Chapter for the awesome commitment. With the euphoria subsided, the immediate task of the RP Chairs and Co-Chairs of our 10 chapters whose volunteerism is recognized below, is to form a RP Committee to plan for a few RP campaigns for the new Society year of 2018-2019, hopefully a couple of which are unconventional.

Chapter	RP Chair	RP Co-Chairs	
Singapore	Rejesh Pudupadi Balachander		
Hong Kong	Taylor Chow Chi Fung	Cindy Pun Mun Wai	Rachel Tse Yan Yi
Malaysia	Wee Han Tan	Rex Foo Shi Yau	
Taiwan	Tong Hung-He Huang		
Philippines	Rico T Mercado		
Thailand	Dr Chirdpun Vitooraporn		
Indonesia	Yongkie Tileno	Wira Endratami	
Japan	Prof Pyozo Ooka	Prof Motoi Yamaha	
South Korea	Dr Jong Rim Jung		
Macao	Steven Nai Kin Chan		

The targets of RP Committee and the deadlines of which are tabulated below.

#	TARGETS	Date
1	Form a RP Volunteer Committee (if you havd not done so)	15-Sep
2	Submit RP Plans to RVC	01-Nov
3	Order Donors Recognition Items	15-Nov
4	Achieve Chapter FULL CIRCLE	15-Nov
5	Meeting 30% of Goal	31-Dec
6	Achieve 100% of Goal	15-Jun
7	Fund raising campaign ends	30-Jun

I truly believe that Region XIII will again meet and exceed the RP Goal of 2018-2019 gauging from the enthusiasm and conviction of the BOG, RP Chair and Co-Chair of each chapter.

Let's start the RP campaigns!
Thank you all.

Hong Kong Joint Symposium 2018— Innovative Technology Fusion for Next Challenging Century

Hong Kong Joint Symposium 2018 was successfully held on 21 November 2018. It was jointly organized by ASHRAE HKC, the Hong Kong Institution of Engineers – Building Services Division, the Chartered Institution of Building Services Engineers – Hong Kong Branch, and the Hong Kong Polytechnic University – Department of Building Services Engineering.



The theme this year was Innovative Technology Fusion for Next Challenging Century. We were glad to invite Dr. David Chung, JP, Under Secretary for Innovation and Technology, the Government of HKSAR, as the Guest of Honour to deliver the opening address, and Prof. Lynne Jack, President-Elect, CIBSE UK to be the keynote speaker.

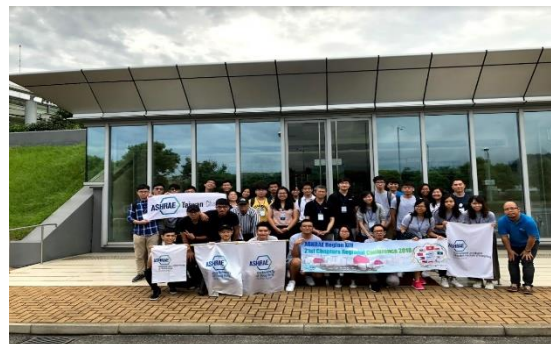
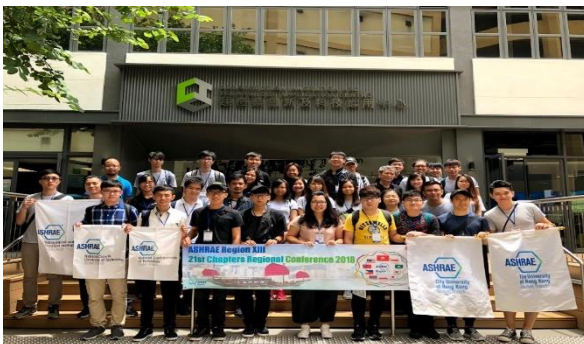
The symposium consisted of four sessions, namely Code and Guidance, Design and Research, Application Considerations and Innovative Approach. There were over 200 professional bodies joining the whole-day event and 16 companies as the sponsorship organizations. The environment was fantastic and all participants were fruitfully satisfied by the speakers' technical presentation.

Tenny Tam
Secretary (2018-19), ASHRAE Hong Kong Chapter
Chairman, Organizing Committee of
Hong Kong Joint Symposium 2018

ASHRAE Taiwan Chapter National Chin-Yi University of Technology Student Branch



Five students participated in the student program of the 21st CRC in Hong Kong. Through the two-day intensive program on Aug 17~18, they understood more about other countries' HVAC related policy planning and green energy development in the future. They also learned about cultures and traditions from different countries. This was a wonderful experience and a great cross-border communication opportunity for them. The highlight of the Banquet Dinner and Cultural Night were the elaborate performances from each chapter's student branch. Everyone enjoyed them a lot. Unforgettably, all the participants took a group photo as a happy ending.



On the second day of the trip, the students visited the electrical appliance recycling center and zero carbon building in Hong Kong. Through the careful explanation of the administrators, they have a better understanding of Hong Kong's focus on the development of green buildings and the entire engineering environment, as well as the economy of recycling of electrical appliances. There are many innovative inventions and design ideas in the collection. In the trend of energy saving and carbon reduction, no doubt they will be the focus in the future. Taiwan is close to Hong Kong and has made a lot of plans for energy conservation and carbon reduction. It is a great harvest for them to learn and communicate through this event.

Voided Biaxial Slab 空心雙向板

Semi-precast beamless slab system made with void former integrated reinforced concrete.
以空心設計的鋼筋混凝土製作的半預製無梁雙層系統。

Benefits 優勢

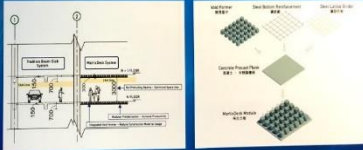
- Shallower structure depth for more headroom
減少結構層高度增加淨空
- Larger span and column-free area
更大的跨距及減少柱位
- Simplify on-site reinforced concrete works
簡化工地現場的鋼筋混凝土施工
- Reduce construction time
減低施工時間
- Enhance quality of work
提高品質
- Reduce skilled labour requirement on site
減低工地現場施工人員
- Safer work environment
更安全的工作環境

Applications 應用

- Flat slab design
無梁樓板設計
- Long span design like office building, hotels, shopping mall etc.
大跨距設計，如辦公大樓、酒店、商場等
- Specific sound and thermal insulation design like theatre, ice skating rink etc.
要求特殊的隔音和隔熱設計，如戲院、溜冰場等
- Vibration sensitive design like advanced laboratory, manufacturing centre etc.
振動特別敏感設計，如先進的實驗室、製造中心

Project References 項目案例

- HKBCF Jockey Club Breast Health Centre (Kowloon)
香港乳癌基金會賽馬會乳癌中心(九龍)
- Harvey International School
哈維曼哈頓學校




Tunnel Access Control System (TACS) 隧道人流管理系統 (TACS)

Customised solution aims to achieve high safety standards in challenging tunnel environments.
隧道人流管理系統能有效增加強複雜工程的安全監察及提升應對突發事故的能力。

Benefits 優勢

- Enhance construction site safety
提升工地安全

Applications 應用

- Accurate site daily attendance records
準確記錄工地出入紀錄
- Real time location tracking for individual practitioner inside the work site
即時辨別各從業員的正確位置

Project References 項目案例

- Express Rail Link (The Heng Kong Section)
東港鐵(西貢段)

IoT Safety Belt Alarm System 物聯網 (IoT) 安全帶警報系統

Safety harness alarm system aims to monitor the engagement of safety harness at worksite.
安全帶警報系統能即時監察工地安全帶的使用情況。

Benefits 優勢

- Enhance construction site safety
提升工地安全
- Promote the correct use of safety harness
推動正確使用安全帶

Applications 應用

- Real time safety harness engagement monitoring
即時安全帶使用監察




During the visit, what surprised them most was the introduction of the Internet of Things (IoT) into the workers' helmets and personal clothing, which can track the heartbeat and body temperature of the construction workers at any time, as well as the special design of detecting fall-from-height. When anyone accidentally falls, on-site monitoring personnel can quickly know which worker has an accident through the system and immediately execute the emergency SOP. This has not been introduced and promoted in Taiwan. They felt it's a safety plan worth following.

Other designs, such as two-way hollow slabs and foam concrete, are new construction elements that have been modified by removing their originally excess materials. Energy-saving and carbon-reducing designs have better performance. For example, foam concrete block has a better thermal barrier effect than the original mixed clod because the K value of air is much larger than the heat transfer of the cement, and the thermal conductivity can be reduced under the same heat source. The new two-way hollow slabs can provide a larger span for the building and better sound insulation.

ASHRAE Taiwan Chapter - NTUT Student Branch Factory Visit & Distinguished Lecture in Kaohsiung

Group Photos for factory visits



▼ The Distinguished Lecture by Mr. TL Chen



▼ Group Photo after the Distinguished Lecture



ASHRAE Taiwan Chapter NTUT Student Branch held a technical trip to Kaohsiung sponsored by ASHRAE Taiwan Chapter during October 22& 23, 2018. The students visited I-CHERNG Refrigeration Industrial Co., LTD and Kuenling machinery refrigerating Co., LTD. At last, they attended the Distinguished Lecture in NKNU.

On the first day, the visits to HVAC & R equipment factories helped NTUT Student Branch students realize products and manufacturing process in the leading fin-tube and chiller makers in Taiwan, broaden their horizons in related fields and learn at the first hand and oriented for their future career path.

On the second day, the Distinguished Lecture by Mr. TL Chen, “A Selection of Common HVAC Design Problems for Hot & Humid Climate Application,” enhanced the students’ knowledge in HVAC and let them familiarize with what application problems they would face in the future when their career start. It was quite practical. The experience exchange between the lecturer and audience in Q & A session was also informative and useful for their understanding about HVAC in subtropical environments.