



Training Course on HVAC System & Product Updates 2018

General Information

Date : 8, 15, 22 & 29 October 2018 (Monday)

Time: 7.30pm – 9.30pm

Venue: Conference Hall, 4th Floor, HKPC Building, 78 Tat Chee Avenue, Kowloon Tong

Course Objectives

The course is designed to broaden knowledge of engineers in relation to Building Services Systems and is useful for young engineers and practitioners who want to refresh / acquire knowledge in the design, installation and maintenance of these HVAC systems.

Time Table

Session	Date	Topic	Name of Speaker
1	8 Oct 2018 (Monday)	Next-gen Chillers and their Application Considerations	Dr. Philip YU Ir K T CHEUK
2	15 Oct 2018 (Monday)	Rules and Regulation of Statutory Inspection - Smoke Extraction System and Staircase Pressurization System	Ir Albert YAU
3	22 Oct 2018 (Monday)	Radiant Chilled Ceiling and Chilled Beam Systems	Ir Allan JONES
4	29 Oct 2018 (Monday)	Applying Big Data Analytics for Energy Efficiency and Retro-Commissioning; Wireless Solution for Building System	Dr. Pan LEE Ir Glorisun WONG

Medium of Instruction

Cantonese, supplemented with course materials in English

Remarks: The 3rd lesson will be conducted in English



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Target Participants

Engineers, surveyors, architects, project managers and management staff from the construction field

Course Fee

Fee	Per session of any topic	Full course of 4 sessions
Early Bird on or before 7 27 Sept 2018	HK\$250	HK\$800
Registration on and after 8 Sept 2018	HK\$300	HK\$1000

Remarks: Early bird discount deadline is extended to 27 Sep, 2018 and then the registration will be closed.

CPD Certificate

A CPD certificate (with 2-hr) will be issued to the participant after the course.

A full course certificate will be issued to those who have applied for full course.

Registration

Please register online through the [embedd link](#)

Or the QRcode beside.

Registration/enrollment will be on a first-come-first-served basis
(*priority will be given to members*).



Payment Method

After online registration, please make the cheque payable to **"The Hong Kong Air Conditioning and Refrigeration Association Limited"** and Attention to **"Ms. Aris Chiu (ACRA-ST 2018)"** to the following address: **"ACRA, Room 1801, 18/F., Tung Wai Commercial Building, 109-111 Gloucester Road, Wanchai, Hong Kong."** *Please state the applicant's name with contact phone no. and mark "ACRA-ST 2018" at the back of the cheque.*



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Key Speakers

Dr. Philip YU

Ir Dr Philip YU is environmental & applications engineering director of TRANE, co-leader for Trane next-gen centrifugal chiller new product development project. Philip also devoted a lot of effort in green building movement together with Rob Watson (father of LEED) in early 2000's and well recognized by his expert member to China GBC since founded in 2008. He is also well known as an active member of ASHRAE, serving as the President of HK Chapter, Vice President of Regional XIII, Chairman of Asia Pacific Conference and recently serving on "Climate Change Position Document Committee" for ASHRAE Headquarters.

Ir K T CHEUK

Ir K T CHEUK is the Head of Engineering of Trane Hong Kong. He has over 25 years of experience in the building and construction Industry, and specializes in building services engineering, mechanical engineering, energy management and building sustainability development.

Ir CHEUK actively involves in various Local and Oversea Engineering Institutions and was the Past Chairman of HKIE – Building Services Division. He currently practices his profession as RPE (BSS & MCL), BEAM Pro and LEED AP in Green Building Industry, REA under the Buildings Energy Efficiency Ordinance and Authorized Signatory (AS) in both Minor Works & Ventilation Works under Buildings Ordinance.

Ir Albert YAU

Ir Albert YAU (MHKIE, MIEAust, MIFireE) is the Director of Fire Safety Consultants Limited and has over 25 years of contracting and consultancy experience in building services engineering and fire safety engineering for numerous building projects including retail, commercial, convention centre, industrial, sports/recreational facilities and residential buildings in Hong Kong and Australia. His specific areas of interest include performance-based fire engineering techniques, cost effective fire safety solutions, fire safety audit, fire expert for legal issues, hot smoke tests, mechanical service and fire safety systems, smoke control systems, interpretation of building codes and regulations, simulation modelling of fire and evacuations.

Ir Allan JONES

Ir Allan JONES is the Managing Director of Barcol-Air Limited who are specialist manufacturers of air-conditioning equipment for low energy air-conditioning systems including variable air volume systems, chilled beam and chilled ceiling systems. Allan previously held senior management positions at Carrier Air conditioning Corporation and has over thirty years of experience in the design, manufacturing and marketing of air conditioning equipment in Europe, the Middle East and Asia.



Dr. Pan LEE

Dr. Pan LEE is currently a Senior R&D Engineer at ATAL Building Services Engineering Ltd. He obtained his BEng degree with first-class honors from the Department of Building Services Engineering at the Hong Kong Polytechnic University (PolyU) in 2011, and his Doctor of Philosophy (in Energy Performance Contracting) from the Department of Building and Real Estate at PolyU in 2016. During his PhD study, he was attached to the National Chiao Tung University (NCTU) in Taiwan and Pennsylvania State University (PSU) in the United States as a visiting scholar in 2013 and 2014 respectively. His research interests include chiller plant optimization, fault detection and diagnosis (FDD), energy performance contracting, building energy analysis, contract management and risk modeling.

Ir Glorisun WONG

Ir Glorisun WONG is the Senior Manager of Trane Hong Kong - Energy Solutions and Trane Controls System. He has over 20 years of product planning & development, product management, sales & marketing experiences in HVAC & Controls System. Ir Wong is a LEED AP BD+C, a BEAM Pro, and a Certified Energy Manager.

Course Contents

Session 1- Next-gen Chillers and their Application Considerations by Dr. Philip YU and Ir K T CHEUK (8 October 2018, Monday)

HVAC&R industry has started transitioning away from HFC refrigerants of high global warming potential (GWP) in response to the global environmental calls. The next-gen chillers are using primarily HFO type refrigerants with low GWP and yet high efficiency to maximize the reduction of HFC or carbon emission in general. This course will try to start with the background knowledge and walk through the environmental issues as well as the next-gen product limitations and application considerations such as district cooling (building energy plant).

Session 2 Rules and Regulation of Statutory Inspection - Smoke Extraction System and Staircase Pressurization System by Ir Albert YAU (15 October 2018, Monday)

- 1) Testing & Commissioning
- 2) Design and Installation Considerations
- 3) Submission for FSD Inspection
- 4) General Procedures on FSD Submission for Approval



Session 3- Radiant Chilled Ceiling and Chilled Beam Systems by Mr. Allan JONES

(22 October 2018, Monday)

The HVAC industry in Hong Kong and China is now waking up to the need for more energy efficient air-conditioning systems. Radiant chilled ceiling systems and chilled beam systems were developed in Europe 20 years ago for just this purpose and these systems are now becoming the subject of more interest for local projects. This presentation will introduce the basic application and benefits of these systems which extend beyond pure energy saving and also include improved comfort as well as less maintenance. Each system has its particular pros and cons and these will be discussed relative to the Hong Kong market needs.

Session 4 - Applying Big Data Analytics for Energy Efficiency and Retro-Commissioning by

Dr. Pan LEE (29 October 2018, Monday);

The building industry in Hong Kong is being shaped by trends in big data analytics, cloud computing and Internet of Things (IoT) applications. In order to effectively analyze a huge amount of data, big data analytical skills become the essential skill in today's digital age. This lecture provides an introduction to equipment and system modeling for real-time chiller plant optimization (e.g. chiller, pump and cooling tower models). Besides, fault detection and diagnosis methods on HVAC systems, as well as cooling load prediction using deep learning will be discussed.

Wireless Solution for Building System by Ir Glorisun WONG

The communication among wireless controllers and wireless sensors is a reliable, flexible solution that frees you from the hassles associated with wired components for your building controls system. With Air-Fi wireless, you get easy problem solving, efficient performance and cost savings over the life of the equipment. The wireless technologies and their systems and applications will be introduced, and the case studies will help to demonstrate the different challenges and benefits of wireless building controls system.



Remarks

- 1) The early bird registration is subject to the receiving date of cheque with full payment registered.
- 2) The official receipt will be issued only by request (Please state at the back of the cheque 'receipt requested')
- 3) Registration fee(s) being paid is not refundable and not transferable.
- 4) No CPD certificate will be awarded to individuals who arrive after 8:00pm (more than half hour late) or leave earlier than 9:00pm (more than half hour early).
- 5) If the Typhoon Signal No. 8 or above / Black Rainstorm Warning is in force during class, or Typhoon Signal No. 8 or above is hoisted within 2 hours before the class commences, any class already in progress will be dismissed immediately and imminent classes will be cancelled. As such, a make-up class will be arranged.
- 6) The organizer reserves the right to amend the terms and conditions without prior notice.
- 7) In case of any disputes, the decisions of the organizer shall be final and conclusive.

Enquiries

Please contact ACRA: Ms Aris CHIU at Tel: 2598 0101 or e-mail: info@acra.org.hk

Organizing Committee Members

Trane Hong Kong
ATAL Engineering Limited
Welcome Air-Tech Ltd.
The Jardine Engineering Corporation Limited
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