# ASHRAE Hong Kong Chapter

P.O. Box 35612, King's Road Post Office, North Point, Hong Kong Email: info@ashrae.org.hk Web: http://ashrae.org.hk Fax: (852) 30198334

美國供暖製冷及空調工程師學會 香港分會

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# **Technical Workshop**

Title: Fundamentals of HVAC Control Systems

**An ASHRAE CPD Course** 

**Date/Time:** 11, 18, 25 Feb & 4 Mar 2011 (FRI), 6:30 pm – 9:30 pm

**Venue:** Room R507, Hong Kong Polytechnic University, Hung Hom, Kowloon.

Targeted Participants

HVAC professionals who are unfamiliar with controls principles and operations and would like to

understand the fundamentals of them.

### Abstract

It is well known in the HVAC industry that a good design is of utmost importance to the standard of thermal comfort of any air-conditioned buildings. However, during the design stage, lots of factors are normally unknown to the designers. Moreover, the utilization of the building keeps on changing after it is being opened to the public. Even with a good design in terms of components, circuitry and capacity, the life cycled operation of the whole HVAC system greatly relies on a proper control system. The control system continuously adjusts operational parameters and monitors the performance of the HVAC system. This CPD course, adopting an introductory approach, is designed only for HVAC professionals who are familiar with the mechanical arrangement of HVAC components but would like to know more about the fundamentals of controls. For controls professionals who would like to dive in more advanced topics, we are going to organize another CPD course by May or June, 2011. Please have patience!

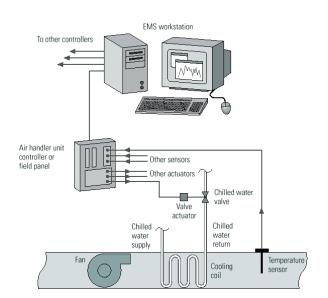
Course Content:

Evening 1 Introduction to HVAC Control Systems, Control Loops and Gain Settings

Evening 2 Components of conventional HVAC Controls Systems, Sensors, Actuators, Valves, Dampers and Motors

Evening 3 Pneumatic and Analog Electronic Controls

Evening 4 Digital Controls and Introduction to Building Automation



A study guide "*Fundamentals of HVAC Control Systems*" from ASHRAE, list price at US\$150, will be given to the participants (included in the fee). A Certificate of attendance will be issued to each participant at the end of the workshop. Light refreshments will also be provided.



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## Speakers:



#### Ir Dr Albert So

Albert obtained BSc(Eng), MPhil and PhD, all in electrical and electronic engineering, from The University of Hong Kong. He had been teaching in City University for 19 years on intelligent buildings, controls and electrical systems. He had been Director of Integrated Solutions of Johnson Controls Asia Building Efficiency and is Director of Asian Institute of Built Environment. He is a Chartered Engineer and Registered Professional Engineer, Fellow of CIBSE and SOE and Membership Promotion Co-Chair of ASHRAE Hong Kong Chapter. His books, *Intelligent Building Systems* published in 1999 and *Intelligent Building Systems – Enhanced Edition* published in 2009, are still unique of this nature in the whole world.



#### Ir S. L. Li

Li is the Past President (2007-08) and has been the Committee Member of ASHRAE Hong Kong Chapter since 2000. He is currently the Director of External Relations, Johnson Controls Asia, Building Efficiency. Ir Li has extensive experience of over 28 years in building control industry. He is a Registered Professional Engineer (RPE) in Hong Kong and a Chartered Engineer (CEng) in UK."



## **Thomas Chan**

Thomas obtained Higher Diploma in Marine Engineering, BSc in Computer Science and Master in Business Administration. He has been working on the Building Controls industry for more than 22 years. He is currently the Senior Account Manager of Honeywell Limited, specialized in energy consultancy and performance contracting. He has been an ASHRAE member since 2005 and is now the Membership Promotion Chair for ASHRAE Hong Kong Chapter this year.

Language: English (teaching materials from ASHRAE ) supplemented by Cantonese presentation

Application: Open to all interested persons, but priority will be given to ASHRAE members. Please complete

and return the application form by e-mail/post and send the crossed cheque via post before <a href="24">24</a> <a href="24">January 2010</a>. Number of participants is limited. Places will be allocated on a first-come-first-

served basis. Successful applicants will be informed individually by e-mail / phone.

Application Form: Technical Workshop on Fundamentals of HVAC Control Systems		
Name (Dr/Mr/Mrs/Ms/Ir) :		
ASHRAE Memb	pership :	Class: No.:
Company/School Name:		
Contact Address :		
E-mail Address	:	(Required)
Contact Number	ers :	(Tel/Mobile) (Fax)
Course Fee (Member of ASHRAE) - \$1,500 x person (chequ		HRAE) - \$1,500 x person (cheque no.:)
Course Fee (Member of HKIE-BSD, CIBSE-HKB, ACRA)		
		- \$2,000 x person (cheque no.:)
Course Fee (Non-Member)		- \$2,300 x person (cheque no.:)
Enquiries:	For inquirie	s, please contact us at email info@ashrae.org.hk
Registration:	"ASHRAE I	tion form and crossed cheque with appropriate payment in Hong Kong dollars payable to Hong Kong Chapter' shall be sent to P.O. Box 35612, King's Road Post Office, North g Kong, before 24 January 2010. The applicant may e-mail the above information to

apply@ashrae.org.hk for place reservation and then followed by cheque payment via mail.