

**Organized by:**



**Supporting organizations:**

**Title: Green and Sustainable Building Design  
(with CPD certificates)**

**Speakers:** Prof Christopher Chao; Dr Square Fong; Ms Sheila Hayter; Dr Thomas Lawrence

**Date:** From 24 April 2012 to 29 May 2012 (4 evening sessions)

**Time:** 6:15pm for 6:30pm - 9:30pm (for each session)

**Venue:** Room BC215, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong.

**Programme Highlight:**

Sustainable, green and energy saving building design is getting popular and become fundamental design criteria in the building industry. This workshop consists of four technical sessions. Each session will focus on one particular topic on latest technologies, design considerations and reference guidelines for air conditioning and building design. The content of the workshop is suitable for HVAC engineers and all building professionals who are interested to learn more about green and sustainable building design. In addition to local experts, we have invited two ASHRAE Distinguish Lecturers, Ms. Sheila Hayter and Dr. Thomas Lawrence, to share their experience in green building design.

## Biography:



### **Prof Christopher Chao**

Christopher Chao is a Professor of Mechanical Engineering at The Hong Kong University of Science and Technology (HKUST). He is also Associate Dean of Engineering in charge of Research and Graduate Studies. He studies indoor contaminant transport and energy efficient building technology, particularly in the transport of exhaled aerosols and the health risk, ultrafine particle dynamics, low temperature VOC oxidation and also recently into adsorption cooling using novel composite materials. Prof. Chao has published more than 90 papers in internationally renowned journals. He is Director of the Building Energy Research Center at HKUST, leading the effort to integrate academic research into commercial product development. Prof. Chao was conferred the Yaglou Award by the International Academy of Indoor Air Sciences (2002) and also the Ralph G. Nevins Physiology and Human Environment Award by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (2005). He is a Fellow of The American Society of Mechanical Engineers (FASME), USA, The Institution of Mechanical Engineers (FIMechE), UK, The Chartered Institution of Building Services Engineers (FCIBSE), UK, The Hong Kong Institution of Engineers (FHKIE), and has also been elected to the Academy of Fellows of The International Society of Indoor Air Quality and Climate (ISIAQ). He is a Registered Professional Engineer (RPE) in the Building Services and Mechanical Disciplines in Hong Kong and a UK Chartered Engineer (CEng). He received his B.S. degree (First Class) in Mechanical Engineering from The University of Hong Kong in 1988 and was a recipient of the Sir Edward Youde Memorial Fellowship for Overseas Studies in 1990. He obtained his M.S. and Ph.D. degrees in Mechanical Engineering from The University of California at Berkeley, in 1992 and 1994, respectively.



### **Dr Square Fong**

Ir. Dr. Square K.F. Fong is Assistant Professor of Division of Building Science and Technology in City University of Hong Kong (CityU). His research area lies in solar air-conditioning, renewable cooling and heating, zero carbon building design, indoor environmental quality, evolutionary computation and heuristic optimization. Dr. Fong has published more than 50 papers in internationally renowned journals, plus a range of conference papers and consultancy reports on the building services projects. He is an active member of the Building Energy and Environmental Technology Research Unit in CityU. Dr. Fong has been acting as visiting scholar and speaker in both international and national context. Having started the career as a professional consulting engineer, he has close links with major incorporations like utilities and building developers in Hong Kong. Dr. Fong is Member of The American Society of Heating, Refrigerating and Air-conditioning Engineers (MASHRAE), USA, The Chartered Institution of Building Services Engineers (MCIBSE), UK, The Hong Kong Institution of Engineers (MHKIE), Hong Kong. He is Registered Professional Engineer (RPE) in the Building Services Discipline in Hong Kong and Chartered Engineer (CEng) in UK. He received his B.Eng. degree in Building Services Engineering from The Hong Kong Polytechnic University in 1990 and obtained his Ph.D. degree in Engineering from De Montfort University in UK in 2007.



### **Ms Sheila Hayter**

Sheila Hayter is registered professional engineer in the State of Colorado. She is the Project Assessment and Development Section Manager within the Integrated Applications Center (IAC) of the U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) in Golden, Colorado. In this capacity, she leads a team of technical and policy experts who support federal, state, and local entities on energy efficiency (EE) and renewable energy (RE) topics with the goal to make significant reductions in non-renewable energy consumption through energy efficiency and increased use of RE technologies. Sheila served on the ASHRAE Board of Directors as a vice president (2009 – 2011) and also as a Director at Large (2005 – 2008). She chaired the Publications and Education Council, has served on Technology Council, Finance Committee, Planning Committee Society Rules Committee, Research Activities Committee (chair 2004 – 2005), Continuing Education Committee (chair 1998 – 1999), and ASHRAE Program Committee. She chaired the Greening ASHRAE Meetings and Exposition presidential ad hoc committee (2006 – 2008), and was a member of the Building Energy Labeling, ASHRAE Logo, Globalization Roadmap, and Strategic Plan IV ad hoc committees as well as served as a member of the Advance Energy Design Guide Steering Committee. Sheila received a 2007 NREL Staff Award for outstanding performance, 2007 Professional Progress Award from Kansas State University's College of Engineering, and an ASHRAE Technology Award in 1999. She received the ASHRAE Distinguished Service Award in 2001 and the Exceptional Service Award in 2011 and was named an ASHRAE Fellow in 2008.



### **Dr Thomas Lawrence**

Dr. Lawrence is a Senior Public Service Associate with the University of Georgia, and has 30 years of professional experience in engineering and environmentally related fields. Before going back for his Ph.D. in Mechanical Engineering at Purdue, he spent approximately 20 of those years in industry and consulting. He is the chair of ASHRAE Technical Committee 2.8, "Building Environmental Impact and Sustainability", and is a member of the committee which wrote the ASHRAE standard on high-performance green buildings (Standard 189.1). As an ASHRAE Distinguished Lecturer, he gives presentations and workshops on green building design at venues around the world. At the University of Georgia, Dr. Lawrence teaches courses in Building HVAC, Green Building Design, Residential Building Design, and Heat Transfer. Dr. Lawrence has a B.S. with Highest Distinction honors in Environmental Science from Purdue University (1978), a M.S. in Mechanical Engineering from Oregon State University (1982) and a second M.S. degree in Engineering Management from Washington University earned in 1989. He received a Ph.D. in Mechanical Engineering from Purdue University in the spring of 2004 researching the impacts of demand-controlled ventilation on energy consumption and indoor air quality in smaller commercial buildings.

**Language: English**

**Tentative Schedule:**

Sessions	Speaker	Topic
24 April 2012	Ms Sheila Hayter	Integrating Renewable Energy Systems into Buildings
15 May 2012	Prof Christopher Chao	Managing Healthy Indoor Environment for Green Building
22 May 2012	Dr Square Fong	Application potential of solar air-conditioning system for buildings
29 May 2012	Dr Thomas Lawrence	ASHRAE Standard 189.1-2009 for High Performance Green Buildings

**Registration & Enquiry:**

ASHRAE Members / PolyU Staff / Full-time Students: HK\$ 1,200

Other non-members: HK\$ 2,000

For non-ASHRAE member, please send your application and cheque to “Dr. SL Wong – Department of Civil and Architectural Engineering, City University of Hong Kong, Tat Chee Avenue, Kowloon Tong, Hong Kong” for formal registration. Cheque shall be payable to “ASHRAE Hong Kong Chapter”.

Open to ASHRAE members, HVAC Engineers or other professions interested in this topic etc. Please complete and return the below application form by e-mail before **13 April 2012**. Seats are limited. Quota will be allocated on first-come-first-served basis. Un-successful applicants will be informed individually by e-mail. Applicants who do not receive a reply before **18 April 2012** may assume their application successful.

**Application Form – Green Building Workshop (\*Cross if not appropriate)**

Name (Dr/Mr/Ms) : \_\_\_\_\_  
Membership Class : \_\_\_\_\_ No.: \_\_\_\_\_ (\*ASHRAE/HKIE/CIBSE/Others)  
Fees : \*HK\$ 1,200 / HK\$ 2,000 (receipt is available upon request)  
Company Name : \_\_\_\_\_  
Contact No. : \_\_\_\_\_  
E-mail Address : (Must be provided) \_\_\_\_\_

**For any inquiries, please contact: Dr. S L Wong at 9301 1077 or Mr Patrick Huang at 6077 2053**

**Please e-mail this form to: [chapterprogram@gmail.com](mailto:chapterprogram@gmail.com)**