

Organizers:



Co-organizer:



**HVAC Design: Level I—Essentials**  
**(3-day Intensive Training Course by ASHRAE Learning Institute)**

Date : 25 – 27 May 2016 (Wed, Thu & Fri)  
Time : 9:00am – 6:00pm (Registration will start at 8:45am)  
Venue : Lecture Theatre C, Chow Yei Ching Building, HKU main campus, Pokfulam Road, Hong Kong  
(map: <http://www.cpao.hku.hk/media/map.e.jpg>;  
<https://www.google.com.hk/maps/@22.2833926,114.1353821,19.08z?hl=zh-TW>)

**Abstract:**

ASHRAE's **HVAC Design: Level I - Essentials** training provides participants with instruction that accelerates their transformation into effective members of a design, construction or facilities maintenance team. Developed by industry-leading professionals selected by ASHRAE, the training provides attendees with the fundamentals and technical aspects of HVAC design. Attendees will gain practical skills and knowledge to design, install and maintain HVAC systems that can be put to immediate use.

In addition to gaining in-depth knowledge and understanding, attendees will receive real-world examples of HVAC systems based on the renovated ASHRAE Headquarters building. The training also teaches a systematic approach to guide a design team to a solution that optimally meets the client's expectations. Engineered drawings of the ASHRAE Headquarters renovation will also be discussed so participants are exposed to plan reading and visual understanding of system design.

**Who Should Attend:**

- Engineers new to the HVAC industry, including recent engineering graduates lacking practical experience
- Facilities managers involved in new construction or major renovation projects
- Technicians who would like to gain design knowledge
- Architects who want to understand HVAC design
- Sales engineers and HVAC equipment suppliers who want to gain a broad knowledge of HVAC systems

**Benefits of the Course:**

The training helps attendees understand:

- The need to improve overall building performance
- The technologies that lead to improved building performance
- The economics of sustainable buildings and the roles of the designer and facilities manager
- The basic skills needed to design high-performance buildings
- The skill set that will be required by designers of the future
- Techniques to interact effectively with all design partners (architects, owners, other engineering disciplines) in an integrated design team
- The capacity to participate in the design of high-performance buildings

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**Training Topics:**

- Fundamentals
- Heating/cooling load calculation
- Psychrometrics
- System selections
- Common system and components
- Cooling system
- Basic design of hydronic systems
- Basic design of air systems
- Control/BAS commissioning
- Sustainable design
- Project management and other soft skills
- Introduction to technical sales

**Professional Development Hours:**

Attendees of HVAC Design: Level I will earn up to **18 Professional Development Hours** awarded by ASHRAE. ASHRAE is an approved Continuing Education provider for the American Institute of Architects (AIA) and a USGBC Education Partner. Continuing Education hours earned from ASHRAE courses may be applied toward renewal of state-licensed professionals and maintenance of LEED® professional credentials.

**Speakers:**



**Julia Keen, Ph.D., P.E., ASHRAE Member, HBDP, BEAP**

*Julia Keen* is a Professor of Architectural Engineering and Construction Science at Kansas State University with a specialty in HVAC, energy codes and integrated building design. She has a Ph.D. in Curriculum and Instruction from Kansas State University where she also received a Bachelor's and Master's degrees in Architectural Engineering. She also owns her own consulting engineering company Keen Designs, PA. Julia is a licensed Professional Engineer and an ASHRAE-certified High-Performance Building Design Professional (HBDP) and Building Energy Assessment Professional (BEAP). She currently serves as ASHRAE Director-At-Large and on Technology Council and is past chair of TC 6.1 Hydronics and Steam.



**Sam Hui, PhD, ASHRAE Member, CEng, CEM, BEMP, HBDP, MCIBSE, MHKIE, MIESNA, LifeMAEE, Assoc AIA**

*Sam Hui* is a Lecturer of the Department of Mechanical Engineering, The University of Hong Kong. He has over 24 years experience in the study of energy efficiency in buildings and sustainable building technology. He has acted as a Technical Expert in building energy code and green building assessment projects in Hong Kong, Mainland China and Thailand. He has also developed academic courses and research to promote energy efficient and sustainable buildings. His current research interests include building energy performance, sustainable building design, green roof systems and zero/low carbon buildings. He was the President of the ASHRAE Hong Kong Chapter in 2006-07. He was elected as a Distinguished Lecturer of ASHRAE US Headquarters for 2009-11.

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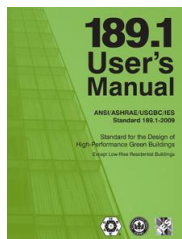
Alvin Lo, ASHRAE Member, CEng, RPE, REA, MHKIE, MCIBSE, PFM, BEAM Pro, GB Faculty

Alvin Lo is an Associate and a Team Leader in Building Sustainability Group of Arup. He is experienced in the design of building services system and optimizing building operational energy performance, specialized in the integration of MEP designs for low / zero carbon building. He has extensive experience on practical building services system design as well as the application of advanced analytical methods for improving the environmental and energy performance of buildings. He strives to establish goals and strategies for integrated sustainability projects in order to optimize building energy consumption, carbon emission and indoor and outdoor environmental performance.

Language: Instruction media will be in English.

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| Fee: | ASHRAE Hong Kong Chapter / ACRA Members Only                         | HK\$ 5,250  |
|      | Company Discount*  | HK\$ 7,270  |
|      | Members of supporting organizations / ASHRAE Members (Society Level) | HK\$ 8,070  |
|      | Non-Members  | HK\$ 10,110 |

\*Company Discount applies if 3 or more individuals from the same company enroll at the same time.



Attendees can have PDF electronic copies of the publications of ASHRAE Standard 189.1-2014 for the Design of High Performance Green Buildings and the 189.1 User's Manual with the values of over HK\$1,600.

Application:

This training course is organized by ASHRAE-HKC and ASHRAE Learning Institute. Registration is opened to all members of ASHRAE and supporting organizations. For application, please complete the Registration Form at the following "On-Line Registration Link" on or before 9<sup>th</sup> May 2016. Number of participants is limited to 50. If participants are less than 30, ASHRAE reserves the right to cancel the course and course paid will be refunded. Places will be allocated on a first-come-first-served basis. Successful applicants will be informed individually by e-mail on or before 16<sup>th</sup> May 2016. For enquiry, please contact Mr. Tenny Tam at 3128 4715 or email to [tenny.tam@jec.com](mailto:tenny.tam@jec.com).

Payment Method:

After online registration, please make a crossed cheque payable to "ASHRAE Hong Kong Chapter" and post to our mail box at "P.O. Box 35612, King's Road Post Office, North Point, Hong Kong" and attention to "Mr. Tenny Tam". Please state the applicant's name with contact phone no. and mark "HVAC Design" at the back of the cheque.

Supporting organizations:

