



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

Date : 30 July – 1 August 2014 (Wed, Thu and Fri)  
Time : 09:00 – 18:00  
Venue : Room 483, Hong Kong Institute of Vocational Education (Morrison Hill),  
6 Oi Kwan Road, Wan Chai, Hong Kong

**Abstract:**

ASHRAE's HVAC Design: Level I - Essentials provides intensive, practical training for HVAC designers and others involved in the delivery of HVAC services. Developed by industry-leading professionals, this training provides the fundamental and technical aspects of HVAC design in commercial buildings.

In three days, gain practical skills and knowledge in designing, installing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection.

**Target Audience:**

- Graduates who are new to consulting practices and engineering teams
- Engineers, technicians and building operating personnel in career transition
- Experienced engineers who would benefit from a review of the basics and the new technology options to save energy
- Facilities engineers with assigned HVAC responsibilities
- Architects who want to understand HVAC systems

**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.

## Speakers:



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

*Julia Keen* is an Associate 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 Bachelor's and Master's degrees in Architectural Engineering. She also owns her own consulting engineering firm.

Julia's experience includes working as an owner's representative in facility planning and project implementation, acting as Mechanical/Electrical Project Engineer designing mechanical and electrical systems, and performing as a specialty consultant in building design as well as professional development. She has been involved in the design of both new and retrofit projects including hospitals, health clinics, assisted-living and nursing facilities, education facilities, office buildings, retail facilities, dormitories and churches.

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 on the ASHRAE Board of Directors as a Director-at-Large.



**Sam Hui, PhD, BEng(Hons), CEng, ASHRAE Member, CEM, MCIBSE, MHKIE, MIESNA, LifeMAEE, Assoc AIA**

*Sam Hui* is a Teaching Consultant and an Honorary Assistant Professor of the Department of Mechanical Engineering, The University of Hong Kong. He has a strong technical background in the study of energy efficiency in buildings and is active in promoting sustainable building technology. He has good experience in practical building services design and has carried out teaching, research and consultancy studies in Hong Kong, Mainland China, Germany, Japan, USA and Thailand. He was the President of the ASHRAE Hong Kong Chapter in 2006-2007. He is selected as a Distinguished Lecturer of ASHRAE U.S. Headquarters for 2009-2011.



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

*Alvin Lo*, Member ASHRAE, is a team leader in Arup's Building Sustainability Group. He has diverse experience in building services system design, building sustainability design/integration and system operation and maintenance. Alvin is responsible for the development of building sustainability and MEP integration skills, in particular on the application of energy modelling, building physics analysis and his unique experience in building operation and maintenance for projects in East Asia Region.

**Language:** Instruction media will be in English.

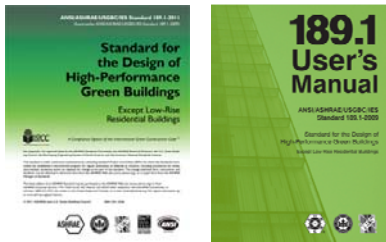
**Fee:**

ASHRAE members	HKD 5,150
Company Discount*	HKD 7,120
Members of supporting organisations	HKD 7,920
Others	HKD 9,920

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

**Application:**

This training course is organised by ASHRAE-HKC and ASHRAE Learning Institute. Registration is opened to all members of ASHRAE and supporting organisations. Please complete and return the application form by e-mail on or before 14<sup>th</sup> July 2014. 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 18<sup>th</sup> July, 2014.



Attendees can have PDF electronic copies of the publications of ASHRAE Standard 189.1 and the 189.1 User's Manual with the values of over HK\$1,600.

**Application Form:**  
**HVAC Design: Level I—Essentials**

Name (Dr./Ir/Mr./Mrs./Ms.)\* : (Surname) \_\_\_\_\_ (Given Name) \_\_\_\_\_

Membership\* : Organization: \_\_\_\_\_ Membership No.: \_\_\_\_\_

Company\* : \_\_\_\_\_

Position : \_\_\_\_\_ Email Address\*: \_\_\_\_\_

Contact Numbers : (Mobile)\*: \_\_\_\_\_ (Office): \_\_\_\_\_

I enclose a cheque no. \_\_\_\_\_ in the total sum of HK\$ \_\_\_\_\_ for \_\_\_\_\_ participant(s).

\* Information must be filled.

**Enquires:** For enquiry, please contact Mr. Patrick Huang at 6077 2053 (ASHRAE – HKC). Email enquiries can be sent to [patrick.huang@arup.com](mailto:patrick.huang@arup.com).

**Registration:** Please send the filled application form on or before 14<sup>th</sup> July 2014 to [patrick.huang@arup.com](mailto:patrick.huang@arup.com) for prior registration and return it with a crossed cheque payable to 'ASHRAE Hong Kong Chapter' by post to our mailbox at P.O. Box 35612, King's Road Post Office, North Point, Hong Kong before 17<sup>th</sup> July 2014. Successful applicants will be notified by email on or before 18<sup>th</sup> July 2014.

**Supporting organisations:**



Note: 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.