







# <u>Technical Seminar -</u> <u>Update on "Building Energy Quotient (Building EQ) and ASHRAE Certification"</u>

Date : 15 November 2017 (Wednesday)

Time : 7:00 – 9:00pm (Registration will start at 6:30pm)

Venue : FJ301, The Hong Kong Polytechnic University, Hung Hom, Kowloon

### Background:

In order to recognize the effort on better energy performance and professional qualification achievement, ASHRAE has developed Building Energy Quotient (Building EQ) Energy Labeling Program and ASHRAE Certification Program for buildings and industry professionals since 2012 and 2007 respectively. This seminar is to provide the updates and better understandings on both ASHRAE's programs.

#### **Session 1**

## The ASHRAE Building Energy Labeling Program

[GBCI Approved | 1 CE Hour | 0920002620 / AIA Approved | 1LU/HSW | Bahnfleth01]



Whether voluntary or mandatory, the rating of the energy use and indoor environmental quality of buildings is a growing trend worldwide. In 2009, ASHRAE introduced its own "Building Energy Quotient" (Building EQ) labeling program for new and existing buildings. It is a comprehensive and rigorous program comprising not only an energy use performance scale, but also tools and procedures for performing ratings and certifications for the qualified energy modelers and building assessors who will use them. This presentation provides an overview of the Building EQ program,

compares it to other building certification programs, identifies the benefits of certification, and summarize the current status of the Building EQ program and plans for the future.

#### Speaker:



William P. Bahnfleth, Ph.D., P.E., is Professor and Director of the Indoor Environment Center in the Department of Architectural Engineering at the Pennsylvania State University (Penn State) in University Park, PA, where he has been employed since 1994. Previously, he was a Senior Consultant for ZBA, Inc. in Cincinnati, OH and a Principal Investigator at the U.S. Army Construction Engineering Research Laboratory in Champaign, IL. He holds BS, MS, and PhD degrees in Mechanical Engineering from the University of Illinois, where he also earned an undergraduate degree in music (pipe organ performance), and is a registered professional engineer.

At Penn State, Dr. Bahnfleth teaches undergraduate courses in HVAC fundamentals and controls and graduate courses in chilled water systems, hot water and steam systems, and indoor air quality. His research interests cover a wide variety of indoor environmental control topics, including chilled water pumping systems, stratified thermal energy storage, protection of building occupants from indoor bioaerosol releases, ultraviolet germicidal irradiation systems, and others. He is the author or co-author of more than 150 technical papers and 13 books and book chapters. He consults on the design of chilled water thermal energy storage systems and has been involved in more than 20 projects world-wide.

Dr. Bahnfleth is a fellow of ASHRAE, the American Society of Mechanical Engineers (ASME) and the International Society for Indoor Air Quality and Climate (ISIAQ). He is a member of the Indoor Air Quality Association (IAQA), the International Building Performance Simulation Association (IBPSA), Sigma Xi, the American Society for Engineering Education (ASEE), and the Society of Building Science Educators (SBSE). He has served ASHRAE in a variety of capacities, including Student Branch Advisor, Chapter Governor, Technical Committee and Standing Committee Chair, and as Director-at-Large, Vice President, Treasurer, and 2013-14 Society President. He is the recipient of a 1st place ASHRAE Technology Award, Transactions Paper







Award, and Distinguished Service and Exceptional Service Awards. In 2016, he received the Penn State Engineering Alumni Society's World-Class Engineering Faculty Award.

#### **Session 2**

### **Introduction to the New Portal of Building Energy Quotient (Building EQ)**

ASHRAE has a Building Energy Quotient (Building EQ) Energy Labeling Program that officially launched its "In Operation" program in 2012, and launched its "As Designed" rating in 2013. Building EQ program provides a quick energy analysis that benchmarks a building's energy performance. It also includes a Level 1 Energy Audit to identify means to improve a building's energy performance including low-cost, no-cost energy efficiency measures and an Indoor Environmental Quality survey with recorded measurements to provide additional information to assess a building's performance. The speaker of this session will present the update on Building EQ and its new portal that will be launched in this Fall 2017.

### Speaker:



**Kelvin C.K. Chan**, BEng (Hons), MASHRAE, BEAP, REA, BEAM Pro, LEED AP, HK BEST AA is currently Grassroots Government Advocacy Committee Co-Chair for ASHRAE Hong Kong Chapter. He is working in Property Management firm and has been working in different categories of engineering firms including E&M contractor, main contractor, property management and green consultant firm for over 20 years. His professional experience includes not only E&M system installation works, project and site management, refurbishment and renovation project, but also sustainable building operation and maintenance, energy and green management, indoor environmental quality, asset enhancement project of existing building. Mr. Chan is ASHRAE Certified Building Energy Assessment Professional (BEAP) and has solid experience on conducting Building EQ assessments for Existing Buildings.

Session 3 Update on ASHRAE Professional Certification Programs

ASHRAE certification programs were founded to meet industry need as identified through market research and today provide value to many important stakeholders. Developed by subject matter experts, including those recruited from allied professional organizations, ASHRAE certification programs benchmark with the ANSI/ISO accreditation standards for personnel certification programs to help ensure quality. For the past 100+ years ASHRAE has worked hard to earn and maintain a worldwide reputation for being the leader in HVAC&R design. ASHRAE certification programs serve to reinforce that reputation. There are six ASHRAE certification programs currently which are:



- Building Commissioning Professional (BCxP) Certification
- Building Energy Assessment Professional (BEAP) Certification
- Building Energy Modeling Professional (BEMP) Certification
- Healthcare Facility Design Professional (HFDP) Certification
- High-Performance Building Design Professional (HBDP) Certification
- **Certified** Operations and Performance Management Professional (OPMP) Certification

The speaker of this session will present the update on ASHRAE Certification Programs and share the experiences on the Mentoring Scheme on being "ASHRAE Certified Professionals" organized by ASHRAE Hong Kong Chapter.

### Organizers:







### Speaker:



**C.S. Wong**, BEng (Hons), PhD, MASHRAE, RPE, CEng, CEnv, CIAQP, BEAP, BEAM Pro, GB Faculty is currently working in Property Management firm who is responsible for managing the operation and maintenance on building facilities for one of the largest building complex in Central, Hong Kong. Dr Wong graduated from The Hong Kong Polytechnic University with Doctor of Philosophy in Building Services Engineering. He did numerous researches with topics relating to building ventilation, lighting, air pollution, indoor air quality, acoustic and energy management. He is a BEAM Professional, Green Building Faculty, Registered Professional Engineer, Chartered Engineer, Chartered Environmentalist, Building Energy Assessment Professional and Certified IAQ Professional. He is currently Grassroots Government Advocacy Committee Chair for ASHRAE Hong Kong Chapter. He was the President of ASHRAE Hong Kong Chapter (2015-16) and achieved ASHRAE 2017 Chapter Program Star Award.

Language: Session 1: English

Session 2 & 3: Cantonese with English Terminology

<u>Fee</u>: Free of charge

Remark: 2-hour CPD certificate will be provided.

### Registration & Enquiry:

Number of participants is limited and prior registration is required. For registration, please complete Registration Form in the following link: <a href="https://goo.gl/forms/D1xQQzDKpxTs1nvg2">https://goo.gl/forms/D1xQQzDKpxTs1nvg2</a>. Only the applications from the members of Organizer will be accepted. The deadline of application is on <a href="https://goo.gl/forms/D1xQQzDKpxTs1nvg2">11 November 2017</a>. Successful members will be notified by e-mail on or before <a href="https://goo.gl/forms/D1xQQzDKpxTs1nvg2">13 November 2017</a>, which has to be presented at the registry of the venue entrance for verification. If the applicants have not received the confirmation e-mail on or before 13 November 2017, their applications will be regarded as not successful.

If typhoon signal no. 8 or black rainstorm signal is in force and still hoisted after 5:00 pm of 15 November 2017, the talk would be cancelled without further arrangement or notification.

For enquiry, please contact Ms. Cindy Pun at email to ashraehk@gmail.com.