

Organized by:



3 Mandatory CPD hours
for BEAM Pro / BEAM Affiliate

Technical Seminar on Building Energy Simulation – Trends, Technologies and Applications

Date : 8 April 2016 (Friday)
Time : 2:15pm - 5:15pm (Registration will start at 2:00pm)
Venue : BEC Auditorium, G/F, 77 Tat Chee Avenue, Kowloon Tong, Hong Kong

Background

Electricity generation accounts for around 60% of the total CO₂ emissions from energy use in Hong Kong, and buildings, particularly air-conditioned buildings, account for more than half of the electricity consumed each year. Compliance with the Building Energy Codes can reduce energy consumption and operating costs. The reduction of energy leads to the saving of fossil fuels, and reduces carbon dioxide emissions which contribute to global climate change. Mentioned in Energy Use aspect in BEAM Plus Manual, an energy analysis report shall include a formal certifying statement informing the scope of compliance and confirming the compliance with the BEC either by Prescriptive or Performance Option. The statement shall be accompanied by a set of documents, including as-fitted/installation drawings, design calculations and standard forms as required in the BEC. On the use of performance approach to demonstrate compliance, the statement shall include a report describing the simulation software, the simulation results, and the modeling assumptions. Therefore, a simulation software tool is important to model the energy performance for all aspects of our buildings today.

In this technical seminar, the speaker will review the building energy simulation on its development and trends. Also, he will introduce the types of building energy simulation tools available today and provide an overview of EnergyPlus simulation methodologies, capabilities and utilities and interfaces.

Speaker

Drury B. Crawley, Ph.D.

Distinguished Lecturer of ASHRAE
Director, Building Performance, Bentley Fellow
Bentley Systems, Inc., United States

Dr. Crawley is Director, Building Performance and Bentley Fellow focusing on building performance, energy efficiency, renewable energy and sustainability. Prior to joining Bentley in 2010, Dr. Crawley lead the US Department of Energy's Commercial Buildings Initiative [working to create cost-effective low-energy buildings nationwide including the Commercial Building Energy Alliances (now Better Buildings Alliance)] and was responsible for initiating the development of EnergyPlus and other DOE energy software. With more than 35 years of experience in buildings energy efficiency, renewable energy, and sustainability, he has worked in engineering software development, government research and standards development organizations, as well as building design and consulting companies. He received his PhD in Mechanical Engineering from University of Strathclyde in Glasgow, Scotland on the topic of building simulation as a policy tool, looking at the potential impacts of climate change on the built environment. He received a Bachelor of Architecture from University of Tennessee and is a registered architect.



Supporting Organizations:



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He is active in ASHRAE (Chair of Standard 169 Weather Data for Building Design Standards, Chair of TC 4.2 Climatic Data, member of the Advocacy Committee, member of SSPC 189.1 Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings, member of SSPC 140 Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs, former member of the Technical Activities and Research Administration Committees, and past chair of TCs 2.8, 4.2, 4.7, and 7.1). He was made an ASHRAE Fellow in 2009, achieved the ASHRAE BEMP (Building Energy Modeling Professional) certification in October 2012, received the ASHRAE Exceptional Service Award in 2013, the ASHRAE Research Administration Committee's Service to ASHRAE Research Award in January 2012, the ASHRAE Distinguished Service award in 2003 and a 1999 Symposium Best Paper Award for "Which Weather Data Should You Use for Energy Simulations of Commercial Buildings?" He is also active in IBPSA (board member since 1998, Fellow in 2012, Regional Affiliate Liaison since 2006), IBPSA-USA (board member and treasurer since 2013), AIA, USGBC (former member of the Research Committee and the Energy & Atmosphere TAG), and serves on the editorial boards of three international Journals. He has written more than 125 papers and articles, testified before the U.S. Congress, lectured at more than 20 universities, and made more than 400 presentations on building energy efficiency, sustainability, and renewable energy throughout the world.

Topics of the Technical Seminar

Session 1

Trends: Buildings, Technologies and Energy Simulation

The buildings industry faces many challenges and opportunities over the next few decades. Over the next ten years, changes in building technology—particularly wireless controls and solid-state lighting—will profoundly alter how our buildings are designed, built, and operated. Building energy simulation (SIM) has evolved into a powerful tool for evaluating the energy performance of potential or existing buildings. Building simulation allows easy comparison of the energy and environmental performance of many hundreds of design or retrofit options. The buildings touted today as 'net-zero energy' or 'sustainable' would not be possible without energy simulation—but no single simulation tool can model all aspects of our buildings today. This presentation provides an overview of trends and drivers affecting the building industry as well as the simulation tools of tomorrow.

Session 2

EnergyPlus, DOE's New Generation Building Energy Simulation Program

With the interest in green building certification and requirements that new buildings achieve 30%, 50% or even zero-energy performance levels, simulating the energy performance of buildings has become increasingly important. EnergyPlus includes many building energy simulation features that have not been available together in a mainstream building energy simulation program—including variable time steps, configurable modular systems integrated with a heat balance-based zone simulation, on-site power, hybrid natural/mechanical ventilation, UFAD, and VRF. This presentation introduces the types of simulation tools available today and provides an overview of EnergyPlus simulation methodologies, capabilities and utilities and interfaces.

Fee : HK\$600 (ASHRAE-HKC members, BEAM Pro, BEAM Affiliate & BSL Members)
HK\$750 (Members of Supporting Organizations)
HK\$900 (Standard)

Language : English

Deadline for Application : 1 April 2016

Supporting Organizations:



Organized by:



Registration

Number of participants is limited and prior registration is required. Registration will be on a first-come-first-served basis (priority will be given to members of Organizers and Supporting Organizations). For registration, please complete the application form via the following "[On-Line Registration Link](#)". The deadline of application is on 1 April 2016. Successful members will be notified by e-mail on or before 5 April 2016, 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 5 April 2016, their applications will be regarded as not successful.

Enquiry

For enquiry, please call 3610 5700 or email to beampro.training@beamsociety.org.hk.

Supporting Organizations:



Deadline for Application : 1 April 2016, Friday

Mandatory CPD Training – Technical Seminar on Building Energy Simulation – Trends, Technologies and Applications

REGISTRATION FORM

Event Code : M-2016-0408

Name: Dr / Ir / Prof / Mr / Mrs / Ms
(Name shown on your HKID /Passport)

BEAM Pro / Affiliate No.:
BP -
BA -
Others :

Chinese Name (中文名) :

Organisation :

Job Title :

Correspondence Address :

Nature of Organisation
(Please tick one only):

A Government Department

- ☐ Architectural Services Department
☐ Buildings Department
☐ Drainage Services Department

- ☐ Electrical and Mechanical Services Department
☐ Housing Department
☐ Others: please specify _____

B Private Sector

- ☐ Consultant (other than Interior Design)
☐ Contractor
☐ Developer
☐ Facility & Property Management
☐ Others: please specify _____

- ☐ Interior Design
☐ Manufacturer / Supplier / Distributor
☐ Property Agency

C Non-government Organisation

- ☐ Educational / Research / Training Institute / University
☐ Others: please specify _____

☐ NGO / NPO

☐ Professional Society

Area of Practice
(Please tick one only):

A Architecture & Landscape

- ☐ Landscape Architecture
☐ Architecture

B Engineering & Building

- ☐ Building
☐ Civil
☐ Environmental
☐ E&M / BSE
☐ Geotechnical
☐ Structural
☐ Others: please specify _____

C Environmental Science

D Facility & Property Management

E Interior Design

F Planning

G Product Materials Supply & Manufacturing

H Surveying

☐ Building Surveying

☐ Land Surveying

☐ Quantity Surveying

I Others: please specify _____

Contact : Phone

Fax Number

Email

DETAILS

Topic	Date	Venue	CPD Recognition for BEAM Pro/ Affiliates	Fee		
				<input type="checkbox"/> \$600	<input type="checkbox"/> \$750	<input type="checkbox"/> \$900
Technical Seminar on Building Energy Simulation – Trends, Technologies and Applications	2:15pm - 5:15pm (Registration will start at 2:00pm) 08 April 2016 (Friday)	BEC Auditorium, G/F, 77 Tat Chee Avenue, Kowloon Tong, Hong Kong	3 Mandatory	ASHRAE & BEAM Pro/ Affiliates / BSL Members	Other Supporting Organization (Only Cheque Accepted)	(Standard)

Supporting Organizations:



PAYMENT Please send a crossed cheque made payable to “**BEAM Society Limited**” together with this Registration Form to:

BEAM Society Limited, 1/F, Jockey Club Environmental Building, 77 Tat Chee Avenue, Kowloon Tong, Hong Kong.

Cheque Number and Issued Bank : _____

Total Amount: _____

COLLECTION OF PERSONAL DATA

1. Your personal data will be collected and used by BEAM Society Limited (BSL) for purposes in connection with BEAM Professionals Program, training and examination, and the selection designation and regulation of assessors by us in respect of the BEAM (Building Environmental Assessment Method).
2. The data may be disclosed to relevant stakeholders in respect of BEAM including their employees and agents concerned.
3. You have the right to request for the access and correction of your personal data. Such request should be made in writing and addressed to the BEAM Society Limited by mail (1/F, Jockey Club Environmental Building, 77 Tat Chee Avenue, Kowloon Tong) or email enquiry@beamsociety.org.hk. For details of the BSL Privacy Policy, please visit www.beamsociety.org.hk.

TERMS & CONDITIONS

1. Registration (paper form) must be attached with a cheque as full payment.
2. Payment is non-refundable unless the event is cancelled by the organiser.
3. Booking will only be confirmed with payment on a first-come-first-served basis.
4. An official receipt will be issued upon cheque clearance.
5. The event will be cancelled with full refund should a typhoon signal no. 8 or above, or black rainstorm warning being hoisted 3 hours before commencement of the event.

Signature of Applicant

Date

Supporting Organizations: