Organized by:

ASHRAE Hong Kong Chapter BEAM 建築環保評估協會

BEAM Pro / Affiliate Mandatory CPD 綠建專才/通才持續專業發展(強制性)

3 Mandatory CPD hours for BEAM Pro / BEAM Affiliate

Technical Seminar on International Approaches for Indoor Environment and Energy Use Reduction

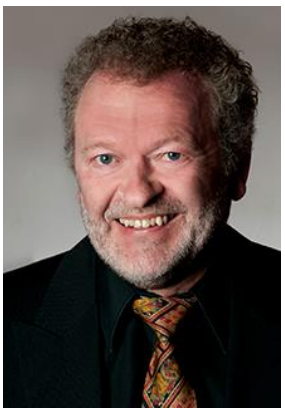
Date : 29 February 2016 (Monday)
Time : 2:15pm - 5:15pm (Registration will start at 2:00pm)
Venue : BEC Auditorium, G/F, 77 Tat Chee Avenue, Kowloon Tong, Hong Kong

Background

Indoor environment conditions have a significant impact on the quality of life given that on average people in Hong Kong spend around 85% of their time indoors. Poor indoor environments in commercial and institutional buildings can impact on productivity and may pose health risks to users. The indoor environment criteria used for the design, such as ISO, CEN, ASHRAE 55, etc., is generally defined by the client and/or consultant appropriate to the type and use of the premises included in the development, and is a basic performance specification. On the other hand, electricity generation accounts for around 60% of the total CO_2 emissions from energy use in Hong Kong, and buildings, particularly air-conditioned buildings, account for more than half of the electricity consumed each year. Ensuring buildings are designed for good energy performance is also the key to the conservation of resources and reductions in environmental loadings. Therefore, the design, operation and maintenance of buildings should seek to provide a good quality indoor environment, but with optimum use of energy and other resources.

The first session of this seminar will review the international standards on thermal comfort and indoor air quality on development, national differences, future revision and recommendation. In second session of this seminar, the speaker will present the Energy Performance of Buildings Directive and related standardization with the aims of decreasing energy use in buildings under the Energy Policy in Europe.

Speaker



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Master's Degree in Civil Engineering, 1972. Ph.D., Laboratory of Heating and Air Conditioning, Technical University of Denmark, 1975. In the period 1972-1990 Research scientist at the Laboratory of Heating and Air Conditioning. Part time affiliated as Product Manager at Brüel & Kjaer 1978-1992. Senior Research Scientist, College of Architecture, Virginia Tech. in the period 1992-1993. Since 1993 until January 2004 Head of Research & Development at UPONOR-VELTA GmbH KG & Co., Norderstedt, Germany. Since January 2004 full Professor in Indoor Environment & Energy at the Technical University of Denmark and Director of the International Centre for Indoor Environment and Energy, Technical University of Denmark. Awarded the Ralph Nevins Award (1982), Distinguish Service Award (1997), Fellow Award (2001) and Exceptional Service Award (2006) from ASHRAE. Awarded the Medal of Honour from the German Engineering Society (VDI-TGA, 2005) and International Honorary Member of SHASE. The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan. Vice President (2014-15) and now is the Treasurer (2015-16) of ASHRAE and Honorary member of AICARR (Italian Society for HVAC) Is active in several ASHRAE-CEN-ISO-DIN standard committees regarding indoor environment and energy performance of buildings and HVAC systems. Has published more than 350 papers including more than 60 in peer reviewed journals.

Supporting Organizations:

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Topics of the Technical Seminar

Session 1

International Standards for the Indoor Environment - Where Are We and Do They Apply Worldwide?

On the international level ISO (International Organization for Standardization, ISO EN 7730), CEN (European Committee for Standardization, EN15251, EN13779) and ASHRAE (Standard 55, 62.1 and 62.2) are writing standards related to the indoor environment. This presentation will focus on the development of standards for the indoor thermal environment and indoor air quality. In the future, recommendations for acceptable indoor environments will be specified as classes. This allows for national differences in the requirements and also for designing buildings for different quality levels. This will require a better dialogue between the client (builder, owner) and the designer. It is also being discussed how people can adapt to accept higher indoor temperatures during summer in naturally ventilated (free running) buildings. Several of these standards have been developed mainly by experts from Europe, North America and Japan, thus guaranteeing a worldwide basis. Are there, however, special considerations related to other parts of the world (lifestyle, outdoor climate, and economy), which are not dealt with in these standards and which will require revision? Critical issues such as adaptation, effect of increased air velocity, humidity, type of indoor pollutant sources etc. are still being discussed, but in general these standards can be used worldwide.

Session 2

The European Approach to Decrease Energy Use in Buildings

From the beginning of 2006 all new European buildings (residential, commercial, industrial etc.) must have an energy declaration based on the calculated energy performance of the building, including heating, ventilating, cooling and lighting systems. This energy declaration must refer to the primary energy or CO_2 emissions. The directive also states that the energy performance calculation must take into account the indoor climate, but gives no guidelines.

The European Organization for Standardization (CEN) has prepared a series of standards to cover the requirements for the indoor environment, energy performance calculations for buildings and systems, ways of expressing energy performance, inspection of heating-cooling-ventilation systems and conversion to primary energy. This session presents the Energy Performance of Buildings Directive (EPBD) and related standardization. It also gives the status of the on-going implementation of the directive and discusses the issues related to the indoor and outdoor environment. Further activities to decrease energy consumption is a directive requiring increased use of renewable energy and energy labeling of energy consuming products are further actions.

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 : 24 February 2016

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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 24 February 2016. Successful members will be notified by e-mail on or before 26 February 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 26 February 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:

AIIB BSOMES CIBSE BUSINESS ENVIRONMENT COUNCIL 商界環保協會 HKIE THE HONG KONG INSTITUTION OF ENGINEERS 香港工程師學會 Building Services Division 屋宇裝備分部 HKIE THE HONG KONG INSTITUTION OF ENGINEERS 香港工程師學會 Control, Automation & Instrumentation Division 控制、自動化及儀器儀表分部 IFMA Hong Kong Chapter International Facility Management Association ifma SOE engineering success soe hong kong region