

Organizers:



Technical Seminar on Green Communities: Thermally Active Structures & Sustainable Infrastructure

Date : 6 June 2018 (Wednesday)

Time : 7:00 to 9:00 pm

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

Background:

Topic 1:

Thermally Active Structures for Green Buildings

[GBCI Approved | 1 CE Hour]

Thermally active structure is an evolving strategy that has become a popular system in green buildings. Originally implemented for heating only, as radiant heating floors, this strategy has, over the past 20 years been implemented also as a cooling strategy. The addition of cooling capability adds a number of design constraints and potential operational problems to the successful implementation of the system. This presentation explores the many design, construction and operational issues of thermally active heating and cooling structures. Issues addressed include:

- Most effective applications of the technology
- Design tools
- Case studies of successful implementations
- Design issues
- Construction issues
- Constraints and limitations
- How-to tips

Topic 2:

Sustainable Infrastructure for Green Communities

[GBCI Approved | 1 CE Hour]

Community planners have the opportunity for significant reduction of the environmental impact of human activity. The current interest in green buildings often overlooks the far greater conservation potential of sustainable communities. Creating net zero energy and net zero water usage communities is much easier than creating single buildings with the same performance. Communities can be vital, complex ecologies that obtain maximum use of consumed resources while minimizing waste discharge.

These goals are best achieved by exploiting the synergies among the separate infrastructure systems while obtaining multiple benefits from each conservation strategy. For example, greenways can provide not only pedestrian pathways but also management and cleansing of storm water run-off. Co-location of neighborhood scaled power, thermal, and waste water treatment plants allows the by-products of each system to be used as resources for others. Sewage treatment plant gas can offset some fuel usage for power



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generation and sewage treatment plant water effluent provides cooling tower make-up for the cooling plants. Pursuing these issues at the community level addresses issues at the most effective scale. For example, sewage treatment is best handled at a neighborhood scale so that the treated effluent water can be recycled for local non-potable uses, such as irrigation, exterior housekeeping and flushing. Renewable energy production, on the other hand, is best handled on a regional scale, so that sites can be selected for most effective harvesting of the resource. When these strategies are pursued in a single building, both conservation and economic effectiveness are often seriously diminished.

Honorable Speaker:



Daniel H. Nall
ASHRAE Distinguished Lecturer

Mr. Daniel H. Nall is a Vice President of Syska Hennessy Group in New York. A graduate of Princeton University and Cornell University, he is a Registered Architect, a Professional Engineer, an ASHRAE Life Fellow, a Fellow of the AIA, a LEED Fellow, a certified Building Energy Modeling Professional, a High-Performance Building Design Professional and a Certified Passive House Consultant. He is one of the four participants in the “Engineer’s Notebook” monthly column in the ASHRAE Journal. He received the ASHRAE New York Chapter Distinguished Service Award in 2011 and the ASHRAE Distinguished Service Award in 2012. He has been a member of the Board of Directors of the USGBC NY Chapter, the vice-chairman of the USGBC Energy and Atmosphere Technical Advisory Group and a member of the AIA National Committee on the Environment.

Language: English

Fee: Free of charge

Remark: 2 hours CPD certificate will be provided.

Registration & Enquiry:

Number of participants is limited and prior registration is required. For registration, please complete the Form in the following "[Online Registration Link](#)". Only the applications from the members of Organizers will be accepted. The deadline of application is on 3 June 2018. Successful members will be notified by e-mail on or before 4 June 2018, 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 4 June 2018, 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 6 June 2018, the talk would be cancelled without further arrangement or notification.

For enquiry, please contact Ms. Cindy Pun at email to cindy.pun@jacobs.com.