



ASHRAE  
Hong Kong Chapter



CIBSE  
Hong Kong Branch



HKIE  
Building Services Division

**Technical Seminar on**  
**Building Energy Saving through Optimization and Life-cycle Commissioning**  
**– The Approach and Experiences in ICC**

**Details**

Date : 17 March 2010 (Wednesday)

Time : 6:30pm for 7:00pm to 8:30pm

Venue : Board Rm 1 & 2, HKIE Headquarters,

9/F Island Beverley, No. 1 Great

George Street, Causeway Bay, HK.

**Programme Highlights**

The practical success of developing a building with optimized energy efficiency and operational performance depends on effective commissioning and optimization of the building systems at various stages of the building life-cycle, including design, contracting, construction, T&C and operation, and requires the effective communication and collaboration among all parties involved. An independent commissioning agent or independent energy consultant can play such a role effectively, who pays the particular attention on the future operation/control and energy performances of the systems and instrumentations being handled (e.g. designed, constructed or tested, etc.) at various stages and ensures that the best efforts are made at each stage for the optimal operation/control and energy performances of the building after completion.

The PolyU team has played such a role effectively in the development of the International Commerce Centre (ICC) of Sun Hung Kai over last four years with effective and pleasant collaborations with different parties involved. The efforts include the continuous verification and improvement of systems and instrumentation at all stages, and the development and implementation of the online optimal control strategies. The efforts covered the cooling tower systems, chiller plant, chilled water distribution systems and the air-side systems. The estimated saving through such efforts is 7 millions kWh per year in ICC building. This presentation will give an overview on the approach, the methodologies and the experiences as well as the online energy optimization strategies of the cooling towers, chiller plant and chilled water distribution systems and air-side systems implemented in the ICC building.

**Speaker**

Prof. Shengwei Wang joined the Department of Building Services Engineering of The Hong Kong Polytechnic University in 1993. He is the Chair Professor of Building Services Engineering in the department. He is one of the most active and productive academics internationally on building energy management, fault diagnosis and optimal control in HVAC&R field. He is extensively involved in the research and application on building energy management, HVAC system fault diagnosis and optimal control, intelligent building technology and building system dynamic simulation. He obtained over twenty-five research funds from the Research Grants Council (RGC) of Hong Kong, National Science Foundation of China (NSFC), technology development, HK-Mainland cooperative research funds and other resources over the last ten years. He is also very active in applying the technologies developed for enhancing the energy efficiency in new and existing buildings. He published two books, coauthored four books, and published over 240 papers in refereed journals and conferences (including over 100 papers in journals cited by SCI). He is an associate editor of 'HVAC&R Research', a research journal of ASHRAE, a member of the editorial board of Journal of Building Performance Simulation, an official journal



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of International Building Performance Simulation Association, and a few other journals, and a member of the Engineering Panel of RGC. He also holds several guest/adjunct professorships in six leading Chinese mainland and US universities.

### **Fee**

Free of charge, and CPD Certificate will be issued.

### **Registration & Enquiry**

For registration, please register ONLINE via the website of CIBSE Hong Kong Branch – [www.cibse.org.hk](http://www.cibse.org.hk).

The maximum number of participants is 50. Applications will be accepted on a first-come-first-served basis. The deadline of application is 5 March 2010. Names of successful members will be posted on the institutions websites, <http://bs.hkie.org.hk/>, [www.ashrae.org.hk](http://www.ashrae.org.hk) and [www.CIBSE.org.hk](http://www.CIBSE.org.hk) after 10 March 2010. For enquiry, please contact Ir CMChung at 25901633 or Ir Patrick Lee at 2590 1694.