

## **ASHRAE Hong Kong Chapter**

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## **Technical Seminar**

## **Ventilation for Control of Infectious Diseases in Built Environment**

By Dr. Yuguo Li

Associate Professor, Department of Mechanical Engineering, The University of Hong Kong and ASHRAE Fellow

**Date & Time:** 17 May 2007 (Thu), 7:20 pm to 8:30 pm

(right after the Annual General Meeting of ASHRAE Hong Kong Chapter which starts at 6:30 pm)

Venue: N001, PolyU, Hung Hom, Kowloon

venue.



Dr. Yuguo Li is an Associate Professor (Senior Lecturer) with the Department of Mechanical Engineering, the University of Hong Kong. Dr. Li was a Principal Research Scientist at CSIRO Australia. His research interests have been in the interface areas between indoor environments/health and thermo-fluid dynamics. His current research topics include bioaerosols, engineering control of infectious diseases, ventilation of dense cities, natural ventilation and flow bifurcation in buildings. His work led to the findings of the roles played by air flow and ventilation in the 2003 Amoy Gardens SARS outbreak in Hong Kong. He received the HKU Outstanding Young Researcher Award in 2002 and became an ASHRAE Fellow in 2006. He is an Associate Editor for *Indoor Air*. He served as CTTC Chair for ASHRAE Hong Kong Chapter between 2004

Position Document (PD) Committee.

**Abstract:** 

Speaker:

The current concerns about an influenza pandemic, the emergence of SARS in 2003, and the growing threat of deliberately released agents all serve as timely reminders that airborne infectious diseases remain a serious threat to human health.

and 2006. He was very recently appointed in the new ASHRAE Airborne Infectious Disease (AID)

Our multi-disciplinary systematic review of literature shows that there is strong and sufficient evidence for the association between ventilation and the transmission and spread of infectious diseases. Different from exposure to other indoor airborne pollutants, people are "connected" by indoor environments in terms of airborne disease transmission. Using a new social contract model integrated with epidemiological models, we investigated the roles of ventilation and "indoor contact" in a connected indoor environment (offices, homes, hospitals, schools, restaurants, public buses etc). Our study into the three large SARS outbreaks in Hong Kong and Beijing revealed the new research challenges in the field of ventilation. We will discuss the implications of our research in design of hospital ventilation and isolation rooms.

**Venue Support:** 

Department of Building Services Engineering, The Hong Kong Polytechnic University

**Reservation:** 

This seminar is open free of charge to all interested persons, but priority will be given to ASHRAE members. Seats are allocated on a first-come-first-serve basis. To reserve a seat, please send your information to us through email (*apply@ashrae.org.hk*) before <u>11 May 2007</u>.

- Name of applicant(s)
- Company name
- Contact info. (email, telephone, fax)
- ASHRAE Membership class and number (if any)

Successful applicants will be informed individually by e-mail / phone.

**Enquiry:** Please contact us at email "info@ashrae.org.hk".

**Attendance:** Attendance certificate will be provided to participants.