ASHRAE *ASHRAE SINGAPORE CHAPTER*
American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. SINGAPORE CHAPTER

Mailing Address: Bukit Merah Central, P.O. Box 0626, Singapore 911535

ASHRAE Distinguished Lecturer Talk

Co-sponsored by
Department of Building, National University of Singapore

Presented by

Dr. CHANDRA SEKHAR

Associate Professor and Director of External Relations
Department of Building
National University of Singapore

Topic : **Decoupled ventilation strategies for enhanced IAQ – "Demand cooling" and "Demand ventilation"**

Date : 13 April 2007 (Friday)

Time : 7.00 pm to 10.00 pm

Venue : LR427, Level 4, SDE3

Address : School of Design and Environment, National University of Singapore, 4 Architecture Drive, Singapore 117566, Tel: 65165150

Contact : **Ms Chelvi,** email: bdgtp@nus.edu.sg

Fees :

1) Registered ASHRAE Singapore Chapter members **2) Staff members of Department of Building, NUS**	**Free of charge**
Other Guests	**$15.00**

PROGRAMME	
Registration	6.45 – 7.15 pm (Venue : Registration area outside LR425)
Buffet dinner	7.15 – 8.00 pm
Technical Talk	8.00 – 10.00 pm (Presentation : 1 hr 30 mins; Q&A : 30 mins)

Application for accreditation of points has been made to the Professional Engineers Board

i) The organiser reserves the right to cancel or postpone the event due to unforeseen circumstances.
ii) The fee per participant is inclusive of GST. No refunds will be provided, but substitutions are allowed if the seminar organiser is informed by 10 April 2007.

ABSTRACTS

Decoupled ventilation strategies for enhanced IAQ – "Demand cooling" and "Demand ventilation"

The concept of decoupling "ventilation air" from "supply air" is fast emerging as an ideal solution to combat the problems associated with poor indoor air quality (IAQ). This talk will present the Personalised Ventilation (PV) system and the Single Coil Twin Fan (SCTF) system, which show considerable promise in their abilities to provide both good IAQ and energy efficiency. The PV system is fundamentally aimed at improving ventilation in the immediate breathing zones of occupants in the built environment. The SCTF system is a new air-conditioning and air distribution system that improves occupants' thermal comfort and indoor air quality whilst significantly saving energy. It provides "demand ventilation" and "demand cooling" by dynamically responding to the varying requirements in the individual occupied zones of a building.

SPEAKER'S PROFILE

CHANDRA SEKHAR, Ph.D.
Department of Building
National University of Singapore
Singapore

Dr Chandra Sekhar is currently an Associate Professor and Director of External Relations in the Department of Building at the National University of Singapore (NUS). He is also a Founding Director of Enhanced Air Quality Pte Ltd., a NUS Spin-off Company incorporated in June 2004, arising out of his research in the fields of indoor air quality (IAQ) and Energy. He has been an IAQ consultant in Singapore since 1993. He received his PhD in Mechanical Engineering from the University of Adelaide, Australia, and continued as a postdoctoral fellow at the same university until 1991 where he worked towards the continued development of energy efficient cooling and dehumidification systems. In 1992, he joined NUS as a Faculty and has since been teaching and conducting research in the areas of ventilation and indoor air quality, air-conditioning and ventilation systems, building energy analysis and has published more than 100 papers in these areas in several international journals and conferences.

Dr Sekhar is an editorial board member of Energy and Buildings journal (Elsevier) and is a regular reviewer of articles for several international journals, such as, ASHRAE HVAC&R Research Journal; Indoor Air; Energy and Buildings; Energy. He was the recipient of The Enterprise Challenge award of the Prime Minister's Office, Singapore in 2004. He is actively involved in the development of local IAQ, ventilation and energy standards in Singapore. He is a member of the International Scientific Committee of the Healthy Buildings, Indoor Air and ROOMVENT series of conferences and was the Technical Co-Chair and member of the organising committee of the Healthy Buildings 2003, the Seventh International Conference in Singapore in 2003.

In September 2005, Dr Sekhar was elected as a Member of the International Academy of Indoor Air Sciences (IAIAS). He is a member of ASHRAE; International Society for Indoor Air Quality and Climate (ISIAQ) and Institution of Engineers, Australia (CPEng, IEAust). Within ASHRAE, he is currently a member of Environmental Health Committee (EHC), SSPC 62.1, SSPC 55, TC 2.1 and TC 4.3 as well as the CTTC Chairman of ASHRAE Singapore Chapter.

Application for accreditation of points has been made to the Professional Engineers Board.

As there are limited places, please register early for the seminar by completing the form below and faxing it to Ms Chelvi at **6775 5502** / email to bdgtp@nus.edu.sg by **9 April 2007**.

For further enquiries, please call **Chelvi,** tel: **6516 5150**.

Yes, I will be attending this **ASHRAE DL Talk** on:

Decoupled ventilation strategies for enhanced IAQ – "Demand cooling" and "Demand ventilation"

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Other Guests **(Cheque payable to "National University of Singapore")**	**$15.00**

Title: Prof / Dr / Mr / Mdm / Ms

Name: _____ Designation: _____

Company: _____

ASHRAE Singapore Chapter member : Yes/No (Membership No: _____)

ASHRAE Member : Yes/No (Membership No:_____)

Address:_____

Tel: _____ Fax: _____ E-mail: _____

I will be accompanied by the following guests:

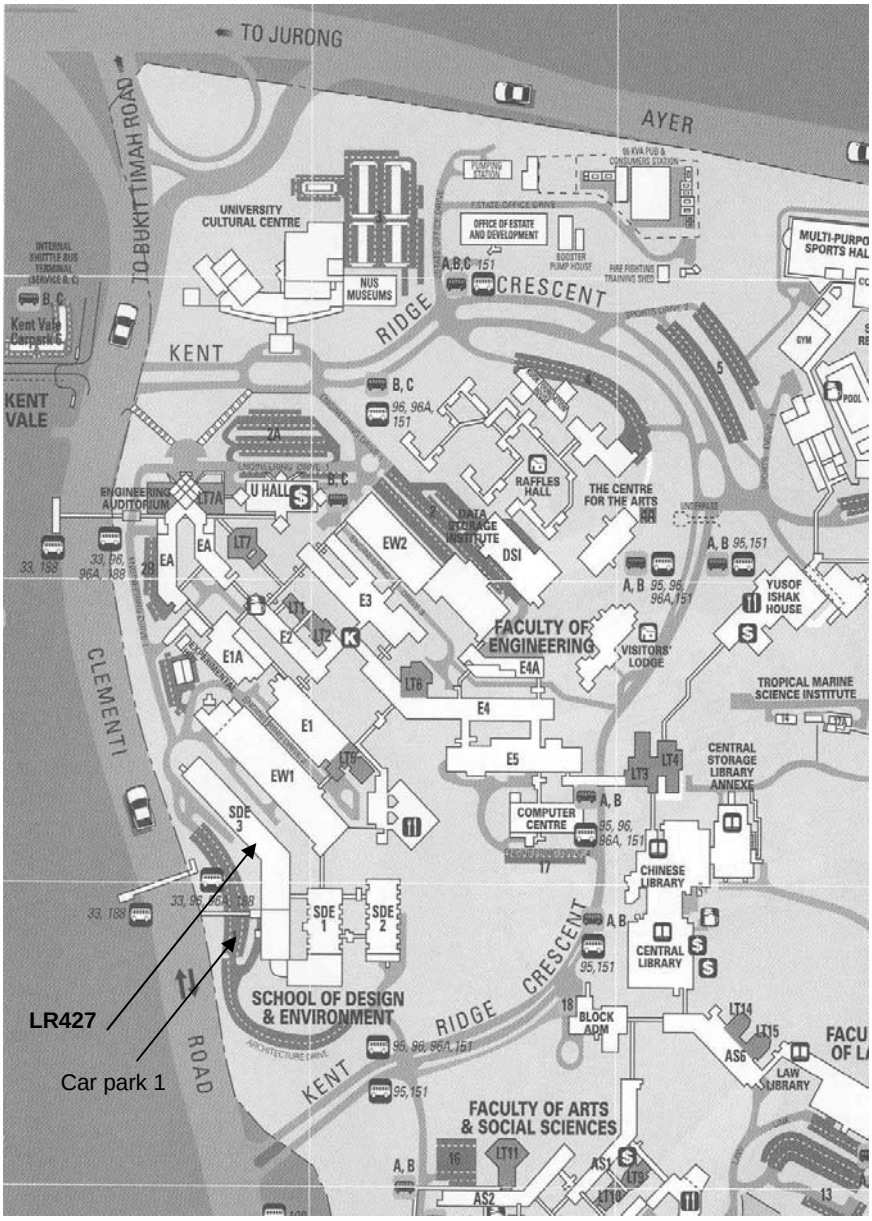
1. Name: _____ Designation: _____

Company/Institution: _____ Tel: _____Member: Yes/No

2. Name: _____ Designation: _____

Company/Institution: _____ Tel: _____Member: Yes/No

LOCATION MAP



Along Clementi Road: Bus nos. 33, 96*, 188

Along Kent Ridge Crescent: Bus nos. 95, 96*, 151

(*96 may be boarded at Clementi Interchange, next to Clementi MRT station)

Campus map: http://www.nus.edu.sg/campusmap/