ASHRAE

1/2 Day Technical Seminar

10th Aug 2012

Achieving High Performance and Occupant Comfort in Green Buildings

In Conjunction With

15TH Chapters Regional Conference

Find out more on....

1. *High Performance Buildings and Occupant Comfort*
2. *Achieving High Performance and Occupant Comfort in Green Buildings*
3. *Application of UFAD & Passive Cooling Strategies to Achieve High Performance and Occupant Comfort*

Organised by:

ASHRAE

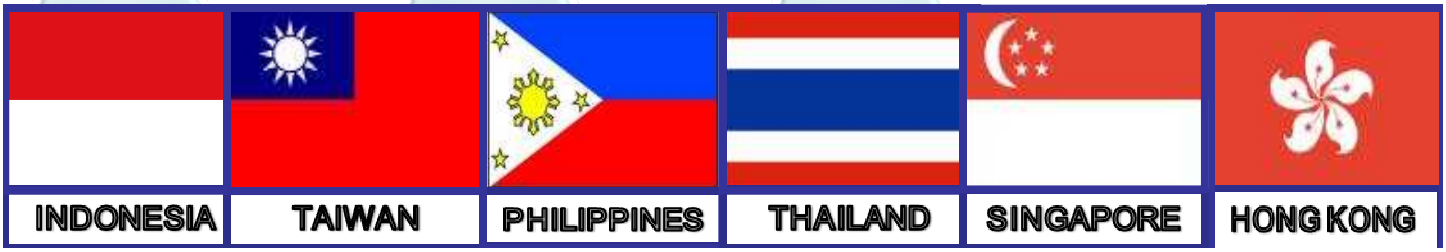
Malaysia Chapter

Venue:
Hotel Royale Chulan
Kuala Lumpur

WHO SHOULD ATTEND:
Consulting Engineers
Engineers, Plant Managers
Project Managers, Facility Managers
Project Management Professionals
Building Owners, Developer& Contractors
Architects,
Technician, End Users, etc

Region XIII Participating Chapters

visit our website @ www.ashrae.org.my



TREND….

In designing and managing Green Buildings, both energy performance and occupant comfort are important factors albeit contrasting, which have indeed been a challenge to engineers, consultants, project managers, building planners, building owners and management team, facility management companies, green building facilitators and commissioning specialists. Recognising the challenge and importance of such contrasting requirements especially in hot and humid climate, ASHRAE Malaysia Chapter has adopted the theme “Achieving High Performance and Occupant Comfort in Green Buildings” in the 2012 CRC Technical Seminar to explore the various design strategies to provide comfort for the occupants while at the same time achieving the best energy performance. In this respect, we are indeed honoured to have the services of two ASHRAE Distinguished Lecturers to impart their expertise as well as sharing their experiences on this subject.

Profile of Lecturers

Dr. PETER SIMMONDS, Ph.D. ASHRAE Fellow, Senior Associate, Head of the Advanced Technology Group, IBE Consulting Engineers, Sherman Oaks, CA 91423

Peter Simmonds has a Bachelor of Science degree in Mechanical Engineering and another in Research and Development from Reading Technical College, and a Master’s degree from HTS, Den Bosch, The Netherlands and a Ph.D. from T.U. Delft. He has been a member of ASHRAE since 1989.

Dr. Simmonds is a recognized authority in the field of Radiant heating and cooling systems, as well as Thermal Comfort. The main goals of his research and applications have been to understand the heat transfer and performance of radiant systems for both heating and cooling. His studies related to thermal performance of these systems led to a unique way to enhance in these systems. Publications of his work led to the development of radiant systems in the USA and are included in the ASHRAE Handbooks.

He has received the Carter Bronze Medal from the Chartered Institution of Building Services Engineers in 1993.

He has authored or co-authored more than 60 technical papers, articles and books He is a member of several ASHRAE Technical Committees and serves on the Handbook committee as well as Standard 55. Peter also teaches Graduate and Post Graduate Architectural students at the University of Southern California and Woodbury University.

Ir. CHEN Thiam Leong FASHRAE, FIFireE, FIEM, P.Eng, C.Eng,

TL Chen is CEO of Primetech Engineers, a consulting engineering firm in Malaysia. He graduated with 1st Class Honours in Mechanical Engineering from the University of Leeds, England, and has been in the building services industry for over 30 years. His project portfolio includes the Kuala Lumpur International Airport, the KL Central Train Station, the KLCC Convention & Exhibition Centre, as well as the 58-Storey ‘tallest’ office building in Melbourne, Australia.

Ir. Chen has authored numerous articles and papers on Fire Protection, Smoke Management, Air-conditioning and Refrigeration, CFC issues, Energy Issues, Intelligent Buildings and Sustainable Buildings. He serves as an expert consultant to develop the National Energy Efficiency Master Plan for Malaysia; the National Mega Science Framework Study for the Energy Sector; as well as the National HCFC Phase-out Master Plan. Chen sits on various National Steering Committees on ODS, BIPV and Energy and helped developed numerous Malaysian Standards. He is renowned for his innovative and daring design work, which culminated in his award winning design for the New Securities Commission HQ Building in Kuala Lumpur. Chen works with and encourages local manufacturers to carry out R&D in conjunction with his ideas to successfully manufacture new HVAC products.

In 2009, Chen led the development of Malaysia’s Green Building Rating System – the Green Building Index (GBI), which was launched by the Malaysian Prime Minister in May 2009. Since then he has continued to develop rating tools for other categories of buildings while serving as a GBI Accreditation Panelist, Trainer and Examiner.

In recognition of his contribution to the engineering fraternity, he was honoured with the ACEM (Association of Consulting Engineers Malaysia) Gold Medal Award in 2010.

Synopsis

Paper 1: ***High Performance buildings and Occupant Comfort***
– by Dr. PETER SIMMONDS

ASHRAE Standard 55 'Thermal Environmental Conditions for Human Occupancy 'has been modified to include the ISO PMV algorithm, equations and a computer program listing. It has also being modified to include some adaptive response guidance for occupants in non-mechanically ventilated / air conditioned buildings. These changes are considerable, and will allow the Standard to be used far more effectively than the prior versions, but breaks new ground in several areas.

Previous work by Simmonds have shown that the effects on comfort results when varying clothing levels and metabolic rates of occupants is relatively small compared to changes in the engineered variables such as dry bulb temperatures, humidity, air velocity and mean radiant exchange. This lecture will show the results of the design process for each of the buildings explaining the intricacies of each solution and show that the new ASHRAE standard 55 can be used as an effective design and analysis tool for modern designs..

Paper 2: ***Achieving High Performance and Occupant Comfort in Green Buildings***
- by Dr. PETER SIMMONDS

Occupant Comfort is very important for modern day buildings and the design of comfort conditioning systems includes not only the HVAC system but also the architectural design, such as glazing and material choice. All these components need to be orchestrated together to provide comfortable environments for the occupants at the least amount of energy consumption. This presentation will outline the possibilities of designing High Performance Green Buildings.

Paper 3: ***Application of UFAD & Passive Cooling Strategies to Achieve High Performance and Occupant Comfort***
– by Ir. Chen Thiam Leong

Whilst the concept of Under Floor Air Distribution (UFAD) & Passive Cooling strategies are not new, the challenge is to ensure their successful applications in a Hot & Humid Climate scenario to achieve High Performance and Occupant Comfort.

To this end, the author has not only successfully implemented UFAD but also LLD strategies for the New Securities Commission Headquarters, Kuala Lumpur way back in 1999, which has served to establish a new benchmark for worldwide application of totally ductless air plenum exceeding 600m^2 per zone. Worldwide applications before then were either fully or partially ducted. Apart from the ductless raised floor plenum, the floor slab was also not insulated for an equatorial climate application - this was thought impossible before by many designers. The success of this project spawned the local manufacture of new products including induction diffusers and fan air terminal units. In conjunction with UFAD, Low Level Displacement (LLD) was also introduced for non-office areas where the phenomenon of "cold feet" is not critical.

The use of embedded chilled water pipes for slab cooling in a hot and humid climate application is challenging in terms of avoiding condensation, thermal breach as well as addressing the need for latent loads and thence indoor comfort conditions. The Energy Commission Headquarters in Putrajaya, Malaysia (2010) has successfully implemented this cooling strategy to become a double Platinum rated building – achieving the first Green Mark Platinum rating (outside of Singapore) and the first Green Building Index (GBI) Platinum rating. Cooling by means of pumping liquid rather than moving cooled air is many times more energy efficient.

With the advent of green buildings in recent years, there is now an exponential growth of UFAD, LLD and Slab Cooling strategies to meet the demands of both energy efficiency and excellent indoor air quality.

Registration Form

1/2 Day Technical Seminar on: Achieving High Performance And Occupant Comfort In Green Buildings

10th August 2012, Hotel Royale Chulan, Kuala Lumpur

13:30 –	Registration
14:20 –	Participants to be seated
14:30 –	Welcome Address & Introduction
14.35 –	Opening address By CRC 2012 Chair
14:40 –	**Topic 1 - High Performance Buildings & Occupant Comfort**
15.15 –	Networking Tea / Coffee Break
15:35 –	**Topic 2 - Achieving High Performance and Occupant Comfort in Green Buildings**
16:15 –	Q & A
16:20 –	**Topic 3 - Application of UFAD & Passive Cooling Strategies to Achieve High Performance and Occupant Comfort**
17:00 –	Q & A
17:05 –	Closing

Please submit your registration by 31st July 2012. Registration is accepted on a first-come-first-served basis. Only limited seats are available. Fee includes seminar material and tea break. Registration fee must be submitted together with the registration form.

Registration Fee:

ASHRAE Member's Rate:

RM 400.00 – (Early bird before 10th July 2012)

RM 450.00 – (After 10th July 2012)

Non ASHRAE Member's Rate:

RM 450.00 – (Early bird before 10th July 2012)

RM 500.00 – (After 10th July 2012)

For Registration / Enquiries, please contact : **ASHRAE Malaysia Chapter**

Address: 21, JALAN TPJ 6,
Taman Perindustrian Jaya,
47200 Petaling Jaya, Selangor Darul Ehsan, Malaysia.

Tel/Fax: 03-7847 4460, H/P: 012-286 1319 (Jessie Chong)

E-mail : mashrae.my@gmail .com

No	Name Of Participants	Designation Dr. / Ir. / Mr. / Ms	Membership #	Organisation	Total Fee (RM)
				Total Payable	

We are pleased to enclose herewith our cheque no. _____ for RM _____ issued in favour of "**Malaysian Chapter of ASHRAE**" and crossed "A/C Payee Only". I/We understand that the fee is not refundable if I/we withdraw after the acceptance of my/our registration by the Committee but substitution of participants is allowed. If I/we fail to attend the seminar without substitution of participants, the fee paid would not be refunded.

Name of Organisation: _____

Address: _____

_____

Contact Person : _____

Tel : _____ Fax :_____

email : _____

_____

Sign & Company Stamp

Date :