



Green Solutions for a Sustainable Built Environment

New

7 Professional Development Units (PDUs) to be awarded by Professional Engineers Board, Singapore

Date : 18 September 2008

Time : 9.00 am to 5.00 pm

Venue : Singapore Management University
School of Economics &
School of Social Sciences
90 Stamford Road,
Singapore 178903

This seminar addresses two very vital aspects of green building design – an integrated climate-appropriate building design and efficient active building systems.

Passive building design is a highly challenging task in the tropics and with the very little mileage offered by the climate it becomes both important and challenging to determine how effectively the building can utilize natural lighting, ventilation and cooling resources and this in turn has a long-term impact on the building occupants' well-being and the building's energy performance.

The building's active systems, ranging from renewable solar energy system to indoor climate control system, compliment the architectural design. They govern the building's operation and maintenance costs and like the building envelope, shape the building's long-term environmental impact.

This seminar will be delivered by well-seasoned and experienced green building professionals. Whether you are an owner or a developer, an engineering consultant or an architect, a facility management manager or a contractor, greening new and existing buildings have business implications for you.

Get all the **Very Latest Answers** at this workshop!

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Objectives

- Explore key opportunities provided by the tropical environment to design passive strategies.
- Address key challenges posed by the climate in implementing some of the most easily conceived passive strategies.
- Discuss and articulate the facts and fallacies behind the implementation of appropriate passive strategies.
- Provide a general introduction to the technical aspects of the various types of green energy generation systems.
- Explain how innovative mechanical, electrical and control system design can create high performance buildings that have high energy efficiency and low operating cost.
- Share with the participants advanced IAQ management technologies and strategies to enhance the working environment

Target Audience

- Architects
- Consulting Engineers
- Contractors
- Developers
- Facilities Manager

Programme Outline

- **Sustainable Development Initiative**
Guest Speaker: Ms Michelle Tan, Head of Environmental Services Division, IE Singapore
- **Update on Clean Energy Industry Development in Singapore**
Guest Speaker: Mr Federick Ow, Senior officer, Singapore Economic Development Board
- **Passive Methods for Green Building Design in the Tropics**
 - Tropical Climate – a Boon or a Curse to Climatologically Responsive Designers
 - Sun, Wind and Rain in Tropical Building Design
 - Energy Efficient Facade Design for the Tropics (ETTV/RETV)
 - Natural Ventilation in Tropical Buildings
 - New Materials and Technologies
 - Other Potential Passive Strategies in Green Building Design**Dr Uma Maheswaran, Director, ZEB-Technology Pte Ltd**
- **Active Systems for Low Energy Eco-Friendly Buildings**
 - **Green Energy Systems and Efficient Energy Generation**
 - Photovoltaic, BIPV and Solar Thermal Systems
 - Geothermal Systems
 - Combined Heat & Power
 - Fuel Cells
 - District Cooling & Thermal Storage
 - **Efficient HVAC and Lighting Systems**
 - Energy Recovery, Demand-Controlled Ventilation, Displacement Cooling and Weather Responsive Strategies
 - Low Energy Lighting Systems, Daylight Harvesting, Occupancy Sensing and Lighting Sweep Programmes
 - **Smart Controls and Automation**
 - Interactive Multi-System Control, Peak Load Shifting, Load Shedding, Advanced Chiller Optimization and Weather Programmes
 - **Human Comfort Systems for High Performance Environment**
 - Indoor Environment Quality & Human Productivity
 - Types of IAQ Factors, Contaminants and Toxins
 - Managing Ultra-fine Particulates
 - Managing Bioaerosol
 - Managing VOCs
 - IAQ & Energy Efficiency**Mr Lui Wing Sin, General Manager, GETC Asia Pte Ltd**

Sustainable Energy Association of Singapore (SEAS)

2 Bukit Merah Central #18-02 SPRING Building Singapore 159835 Tel: (65) 63388578 Fax: (65) 62764257 www.seas.org.sg

About SEAS

Since 2001 the predecessor of SEAS, Industry Committee for Energy Efficiency (ICEE) a part of Singapore Association for Environmental, Occupational Health and Safety Companies (SAFEco) has been conducting seminars, workshops and conferences in the area of energy efficiency and management. ICEE/SAFEco was the first organisation to launch the Specialist Diploma in Energy Efficiency in conjunction with Singapore Polytechnic.

Today, as SEAS we will be specializing in running trainings, courses and conferences only in the area of sustainable energy i.e. energy efficiency and management, renewable energy, carbon trading as well as funding and financing of clean energy projects. SEAS aims to be the one stop, information and training provider, in the area of sustainable energy. We have as our trainers and lecturers not only highly qualified academic professionals but also industry specialists and professional that are successful and sought after practitioners in the area of Sustainable Energy. Majority of Key Qualified Personnel and Accredited Energy Services Companies are long time member of SEAS. They have as a group successfully executed a multitude of energy projects with varying complexities and demands both locally and regionally.

About the Trainer

Dr Uma Maheswaran holds a Doctorate in Building Science and is currently the Director of ZEB-Technology Pte Ltd, Singapore. He specialises in the use of "Building Performance Simulation Tools" and is a green building consultant to a number of projects in Singapore and the region. His research focus areas include tropical facades, green and high performance building design. Currently, he is working on collaborative research projects with MOE and BCA. He is a research collaborator for the Zero Energy Building design. He is a green building consultant (facade design and performance) for the Khoo Teck Puat Hospital at Yishun.

Mr Lui Wing Sin was formerly the Chief Operating Officer of CNA Group Ltd (provides advanced integrated control and automation systems for commercial and industrial facilities). Now he is the Senior Consultant of CNA Group focusing on energy and other green initiatives. His other role is General Manager of GETC Asia Pte Ltd, that is involved in UVC emitters, high-end filtration systems, electronic filtration systems, Titanium Dioxide, Fuel Cells and other green products.

He has over 25 years of experience in the control and automation industry and is a featured speaker in various industry-related conferences and seminars in Asia. Mr Lui has acted in the capacity as Energy and Green Mark Consultant for many buildings in Singapore and has been instrumental in helping many building owners in winning energy and environmental awards. Recipients of awards include the Tan Tock Seng Hospital (BCA Platinum Green Mark Award in 2006 and 1st Position in the Asean Energy Efficiency Award in 2006) and the Nanyang Polytechnic (1st Position in both the BCA Energy Efficiency Award and ASEAN Energy Efficiency Award in 2004 and BCA Platinum Green Mark Award in 2005).

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Date: 18 September 2008, Time: 9.00am – 5.00pm,
Singapore Management University

Registration Form

- Yes! I would like to register for this programme.
 I am unable to attend but please put me on your mailing list.

	Early Bird (Registration with payment made on/before 14 Aug 08)	Normal Fee (Closing date: 4 Sept 08)	Group Fee (Closing date: 4 Sept 08)	No. of Delegates	Fees Payable
<input type="checkbox"/> SEAS Member	S\$250	S\$300	-		
<input type="checkbox"/> Supporting Organisation	S\$300	S\$350	-		
<input type="checkbox"/> Non Member	S\$350	S\$500	S\$300		
Total					

- * Fees include refreshments, lunch and programme collateral.
- * **Enjoy group discount for 4 or more delegates** registered at the same time from the same organization and same billing source.
- * Only one type of discount scheme is applicable at any one time.
- * Please print and complete additional sheets where necessary.
- * **Important:** Walk-in delegates will only be admitted on the basis of space availability and with full payment made on site.

Participant's Details

- 1 Name (*Dr/Mr/Mrs/Ms): Designation:
HP No: Email: PEB
- 2 Name (*Dr/Mr/Mrs/Ms): Designation:
HP No: Email: PEB
- 3 Name (*Dr/Mr/Mrs/Ms): Designation:
HP No: Email: PEB

*Please delete accordingly

Organization's Details

Company Name:

Company Address:
..... Postal:

Contact Person's Name : (*Dr/Mr/Mrs/Ms)

Tel: Fax:

Email:

Administrative Information

Registration and Payment

Please complete the enclosed registration form and forward it together with your cheque at least 7 days before the commencement of the programme to

**Sustainable Energy
Association of Singapore (SEAS)
2 Bukit Merah Central
#18-02 Singapore 159835**

Crossed cheque should be made payable to

**"Sustainable Energy
Association of Singapore"**

Applications will close on **4 September 2008**.

Cancellation

SEAS reserves the right to change programme venue, cancel or reschedule the programme if necessary or warranted by circumstances beyond our control.

There will be no refund of fees for withdrawal. However, if the registration participant is unable to attend, a representative may be allowed to attend at no extra cost. Please inform us of the changes by fax or via email 3 days before the commencement of the programme.

Confirmation of Registration

Confirmation of registration will be given 5 working days before the commencement date via email. Registration is confirmed only upon receipt of payment.

If you do not hear from us
**Please contact Ms Joann Ng at: 63388578
Email: joann@seas.org.sg
Fax your registration form to 62764257**