



**NUS**  
National University  
of Singapore

**Department of Architecture**

**Conference  
Design Symposium  
Workshops**

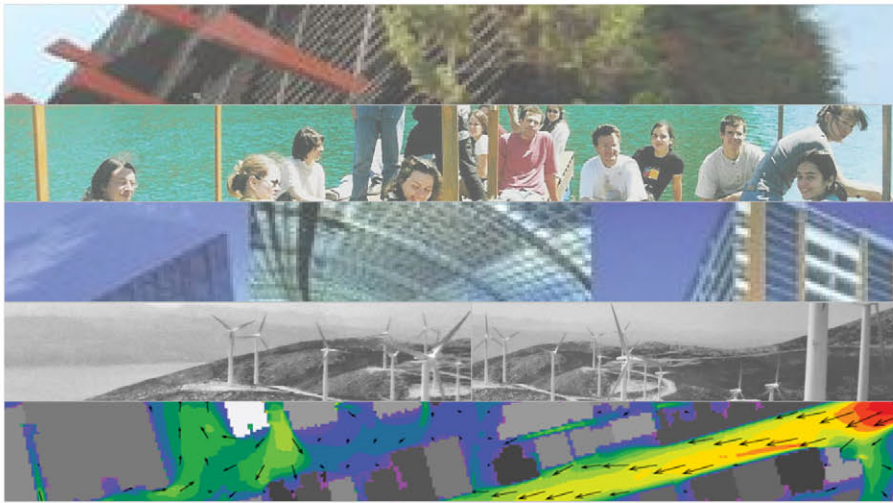
# PLEA 2007

24<sup>th</sup> International Conference on  
Passive and Low Energy Architecture  
In conjunction with International PLEA

Department of Architecture  
22.-24. November 2007

220 international architects, building professionals  
and scientists from 35 countries, sharing their  
expertise related to the conference theme  
'Sun, Wind and Architecture'

Expertise areas:  
Solar Architecture  
Bioclimatic Architecture  
Green Building Technologies  
Renewable Energies  
Comfort Models  
Assessment Schemes  
Post Occupancy Evaluation  
Policies and Frameworks  
Design Tools  
Case Studies  
Higher Education



This event is targeted at international and regional  
architects, engineers, scientists, developers, contractors,  
consultants, branding consultants, government officers,  
and other building professionals who want to network  
and exchange professional and scientific aspects of  
Sustainable Architecture and Urban Design.

**[www.plea2007.org](http://www.plea2007.org)**



SUSTAINABLE ARCHITECTURE + URBAN DESIGN

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Correct as of 22 October 2007; Details closer to the date at [www.plea2007.org](http://www.plea2007.org)

## Welcome Message

The Department of Architecture of the National University of Singapore is committed to environmental sustainability in architecture and planning. We provide expertise and visions from building integrated Photovoltaic to sustainable cities with particular focus on the Tropics and Subtropics.

It gives us great pleasure to host the 24th PLEA conference. PLEA is an organization engaged in a worldwide discourse on sustainable architecture and urban design through annual international conferences, workshops and publications. It has a membership of several thousand professionals, academics and students from over 40 countries.

PLEA 2007 is actually the first PLEA conference in Singapore and South East Asia. We thus welcome Professionals, Academia, Industry and Members of the Government from East and West to close ties under our official conference theme 'Sun, Wind, and Architecture'.

PLEA 2007 comprises of a Design Symposium and Workshops, which are run by practising architects and engineers, as well as 105 paper and 50 poster presentations. Our international keynote speakers have backgrounds in practice, academia and government and will share their expertise in design, legislation and occupant's behaviour.

Dr Mohamad Maliki Bin Osman, Parliamentary Secretary, Ministry of National Development and Professor Koen Steemers, President of PLEA and Professor of Sustainable Design at the University of Cambridge (UK) will be the Guests-of-Honour of our Opening Ceremony.

Welcome to Singapore and the PLEA 2007 Conference, Design Symposium and Workshop!  
Dr Stephen Wittkopf, Chairman PLEA 2007

## Schedule

	22 November 2007 University Cultural Centre	23 November 2007 School of Design and Environment (SDE)	24 November 2007 School of Design and Environment (SDE)	
08:30 – 09:30	Registration	Parallel Session 3 Design Symposium	Parallel Session 7	08:45 – 10:15
09:30 – 10:15	Opening Ceremony			
10:15 – 10:45	Tea break	Tea break	Tea break	
10:45 – 12:00	Keynote Speeches	Parallel Session 4 Design Symposium	Parallel Session 8	10:15 – 12:35
			Announcements	
12:00 – 14:00	Lunch Break and Transfer to SDE	Lunch Break	Lunch Break	12:35 – 13:30
		Poster Session		
14:00 – 15:50	Parallel Session 1	Parallel Session 5 Workshop	Post Conference Tours	13:30 – 18:00
15:50 – 16:30	Tea break	Tea break		
16:30 – 18:00	Parallel Session 2	Parallel Session 6 Workshop		
19:00 -	Research Network and Annual PLEA meeting	Conference Dinner Banquet		

Details closer to the date at  
[www.plea2007.org](http://www.plea2007.org)

## Venue

National University of Singapore  
Department of Architecture, School of Design and Environment (SDE)  
4 Architecture Drive, Singapore 117566





## Keynotes



### **Professor Paula San Payo CADIMA**

Professor at the Faculty of Architecture,  
Technical University of Lisbon  
Project Officer, Executive Agency for  
Competitiveness and Innovation (EACI),  
European Commission, Brussels.

Professor Cadima helps with the promotion  
of energy efficiency and Renewable  
Energies and manages European projects  
in the building sector. She has taught at  
the Faculty of Architecture in Lisbon since  
2001 and became Director of the Master  
Course on "Bioclimatic Architecture" in  
2003. She is the current Vice-President of  
PLEA.

### **Keynote Title:**

The European Strategy towards Sustainability in the Built  
Environment

### **Abstract:**

Over the past years, the European Commission has been  
promoting various aspects of sustainable urban  
development and energy efficiency through a number of  
policies, measures and legislative instruments, such as  
directives and regulations. Regulations can act as a  
mean to stimulate the integration of environmental  
issues in the design approach. This keynote presents  
some of the most relevant EU directives and legislations  
which stimulate low energy architecture and sustainable  
design. It discusses the drivers and risks of mandatory  
requirements to the integrated design approach and it  
includes examples of various European projects which  
aim at overcoming existing barriers to the  
implementation of the Energy Performance in building's  
Directive (EPBD) in various EU Member States.



### **Professor PhD Toshiharu IKAGA**

Director of Ikaga Laboratories, Department  
of System Design Engineering,  
Faculty of Science and Technology,  
Keio University, Japan

Professor Ikaga focuses on sustainable  
engineering of buildings and cities, life  
cycle assessment (LCA), and  
environmental efficiency assessment  
(CASBEE) to achieve the target of the  
Kyoto Protocol. Prior to that he had worked  
for the worlds largest architectural design  
firm "Nikken Sekkei" contributing to award  
winning Architecture in Japan.

### **Keynote Title:**

Advanced Sustainable Building Design to Create the  
Desired Japan 2050 Future

### **Abstract:**

To create the desired Japan 2050 future, it will be one of  
the most effective measures that architects and  
engineers can easily use the life cycle assessment (LCA)  
and life cycle costing (LCC) methods in the basic or  
schematic design phase of each building. The author has  
been developing the "Comprehensive Assessment  
System for Building Environmental Efficiency (CASBEE)",  
supported by the Japan Ministry of Land, Infrastructure  
and Transport. In this keynote speech, the several  
sustainable buildings designed and assessed by author to  
create the desired Japan 2050 future will be presented  
as follows: "Head office of the Institute for Global  
Environmental Strategies (IGES)", "Head office of the  
Japan Aerospace Exploration Agency (JAXA)", "Liberty  
Tower of Meiji University", "Yusuhara Town Hall".



### **Univ. Prof. DI Dr. Ardeshtir MAHDAVI**

Director, Department of Building Physics  
and Building Ecology  
Vienna University of Technology, Austria

His research activities cover a wide  
spectrum of work in building science,  
including building physics, building  
performance simulation, building  
automation, and sustainable architectural  
design. He is a frequent keynote speaker  
at scientific conferences and has authored  
over 300 publications.

### **Keynote Title:**

People, Systems, Environment - Exploring the patterns  
and impact of control-oriented occupant actions in  
buildings

### **Abstract:**

In most buildings, people operate control devices such as  
windows, shades, luminaires, radiators, and fans to bring  
about desirable indoor environmental conditions. These  
control actions have a significant – yet often neglected –  
impact on building's performance and sustainability  
(energy use, indoor climate). A better understanding of  
the logic and patterns of such control-oriented user  
behavior can not only facilitate better predictions of  
buildings' performance, but also support the effective  
operation of buildings' service systems. This keynote  
describes an extensive empirical study of control-  
oriented user behavior (as related to systems for lighting,  
shading, ventilation and heating) in office buildings. The  
results specifically shed light on the relationships  
between control actions and environmental conditions  
inside and outside buildings.



## Registration

Type	Fee			Entitlements	Delegate	Full-Time Student
Delegate	SGD 750	USD 510*	EUR 360*	Opening Ceremony	yes	yes
Full-time	SGD 300	USD 205*	EUR 145*	Parallel Sessions, Workshops, Design Symposium	yes	yes
Student				Access to Poster Exhibitions	yes	yes
				Daily Lunch and Tea Breaks	yes	yes
				Proceedings Hardcopy, CD-Rom, Abstract Booklet	yes	yes
				Conference Dinner Banquet	yes	no
				Post-conference Tours (to be booked onsite)	no	no

\* Approximate

**Online Registration** : To register online please follow the link provided in the 'Registration' page of our home page  
[www.plea2007.org](http://www.plea2007.org)

**Address** : PLEA 2007 Conference Secretariat, C/o Integrated Meetings Specialist Pte Ltd,  
Blk 998, Toa Payoh North, #07-18/19, Singapore 318993  
Tel: + (65) 6356 4727  
Email: [PLEA2007@inmeet.com.sg](mailto:PLEA2007@inmeet.com.sg)

## CPD Programme

Accredited by BOA-SIA CPD Programme. CPD accreditation: 8 Points

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