

## SCOPE

The effect of wind is a very important issue in the building engineering and civil engineering fields. 85% of economic losses due to natural hazards around the world are caused by wind damage, and thermal conditions and air pollution in buildings and urban environments are greatly affected by wind. Wind engineering has a significant role in handling these issues. Researchers and engineers have an obligation to society to tackle these problems in a positive manner. However, few universities have curriculums in this area. The proposed school intends to cover this lack of relevant advanced professional training.

Lectures in the advanced school will deal with natural ventilation, indoor and outdoor air pollution, and air flows in buildings and cities. The lectures will also outline the latest available knowledge. The advanced school will be of interest to students, engineers, and researchers who work in relevant scientific research or design topics.

## DATE

December 6 - 8, 2007

## VENUE

Soongsil University,  
1-1, Sangdo-dong, Dongjak-Gu, 156-743, Seoul,  
Korea  
(<http://www.soongsil.ac.kr/english/index.html>)

## ADMISSION

Applicants must apply at least one week before the beginning of the course and applications with the applicant's name, affiliation and address can be sent by post or E-mail to the following address. The registration fee for the course is 80,000 KRW (Student: 40,000 KRW) including lunch and coffee.

### *Secretariat of COE-IAS4:*

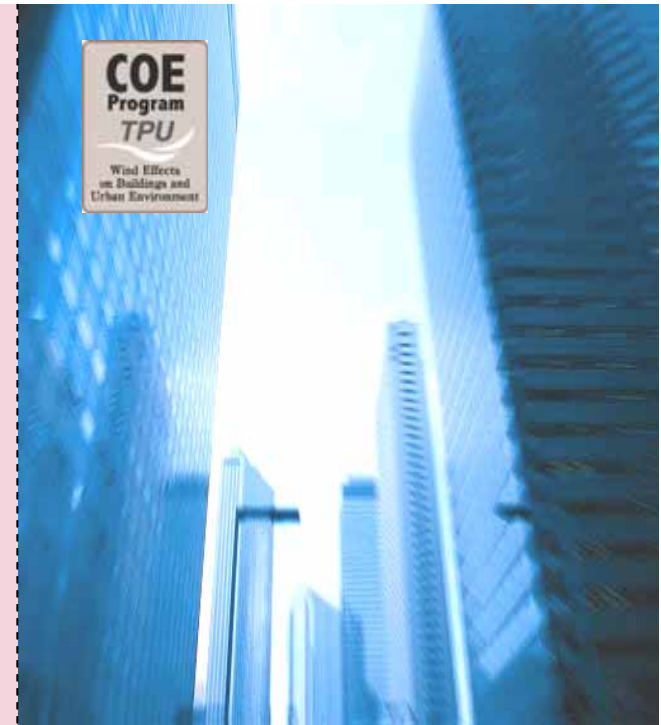
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## COE International Advanced School on Environmental Wind Engineering (COE-IAS4)

Soongsil University  
December 6-8, 2007 , Seoul, Korea

### CO-HOST

The 21st Century COE Program of  
Tokyo Polytechnic University, Japan

The Wind Engineering Institute of Korea

## INVITED LECTURERS

**David Etheridge** – University of Nottingham, UK

4 lectures on:

*Design procedures for natural ventilation,*

*Scale modeling of natural ventilation,*

*Theoretical modeling of envelope flow – steady and unsteady,*

*External flow effects on flow through small openings and leakage measurement*

**Shinsuke Kato** – Institute of Industrial Science, University of Tokyo, Japan

2 lectures on:

*Amazing world of CFD – Applications concerning building environmental engineers,*

*Ventilation efficiency analysis with CFD and its application to buildings*

## TIMETABLE

TIME	December 6	December 7	December 8
9:45-10:00	Opening addresses Yukio Tamura Jongrack Kim		
10:00-10:45	Young-Duk Kim	Masaaki Ohba	Shinsuke Kato
10:45-11:30	Young-Duk Kim	David Etheridge	Shinsuke Kato
11:30-13:00	Lunch	Lunch	Lunch
13:00-13:45	Ryuichiro Yoshie	David Etheridge	Michael Schatzmann
13:45-14:30	Ryuichiro Yoshie	David Etheridge	Michael Schatzmann
14:30-15:00	Coffee Break	Coffee Break	Coffee Break
15:00-15:45	Akashi Mochida	David Etheridge	Sang Joon Lee
15:45-16:30	Akashi Mochida	Masaaki Ohba	Sang Joon Lee

Registration will be available from 9:00 on December 6 - 8.

**Young-Duk Kim** – Kwandong University, Korea

2 lectures on:

*Wind tunnel tests for natural ventilation (1)*

*Wind tunnel tests for natural ventilation (2)*

**Sang Joon Lee** – Pohang University of Science & Technology, Korea

2 lectures on:

*Advanced experimental techniques (particle image velocimetry, pressure sensitive paint, etc) for wind engineering experiments,*

*Practical evaluation of wind environments inside factory buildings and outdoor open space in urban area.*

**Akashi Mochida** – Tohoku University, Japan

2 lectures on:

*Modeling of turbulent flow in an urban area with various small scale flow obstacles,*

*Management, control and design of urban climate based on the heat balance analysis of outdoor space*

**Masaaki Ohba** – Tokyo polytechnic University, Japan

2 lectures on:

*Investigation of ventilation flow structure through CFD and wind tunnel experiments,*

*Development of high-precision ventilation model and its applications*

**Michael Schatzmann** – University of Hamburg, Germany

2 lectures on:

*Dispersion of air pollutants within the urban canopy layer (1 & 2)*

**Ryuichiro Yoshie** – Tokyo Polytechnic University, Japan

2 lectures on:

*Guideline for practical applications of CFD to prediction of wind environment around buildings,*

*Technique for simultaneously measuring fluctuating velocity, temperature and concentration in non-isothermal flow*