



CIB NEWS ARTICLE

International Council for Research and Innovation
in Building and Construction

Providing a global network for international exchange and cooperation in research and innovation in building and construction, in support of an improved building process and of improved performance of the built environment.

April 2010

From CIB Co-sponsored Events

Priority Themes - Sustainable Construction

Report of the SB10 Conference held in February 2010 in Seoul, Korea

The SB10 Seoul conference was held from 23-26 February 2010 in the Conference Hall, Hanyang University ERICA Campus, Ansan, Korea.

Three Special Symposia

SB10 Seoul offered 3 special symposia by 11 invited keynote speakers.

Symposium 1: SB Education,

Jay Golden (Professor, Arizona State University, USA) described the sustainability education programme in the school of sustainability at Arizona State University. Arizona State University has started the school of sustainability, which offers courses in engineering, economics, law, social study and architecture in what is described as a converged curriculum. Prof. Ronald Rovers (Zuyd University, Netherlands) emphasized that the new starting point has to be education to achieve a sustainable environment. He also commented that the world is now working for zero impact on environment, energy consumption and climate changes.



Jay Golden, Ronald Rovers, Prof. Kyudong Song, Raymond Cole and Sungwoo Shin

Symposium 2: Sustainable Super Tall Building

Mr. Andrea Moro (President, iiSBE, Italia) spoke of the great interest in tall building in Italy. He explained the role of rating systems and experience in monitoring the performance of building to achieve the target. Prof. Mahjoub Elnimeiri (Professor, Illinois Institute of Technology, USA) emphasized the necessity for rational collaboration between architecture and the structural system to achieve successful sustainable tall building design. He also addressed issues of construction cost and embedded energy of structural materials that need to be controlled for better environmental performance.

Dr. Ken Yeang (Principal Architect, Llewelyn Davies Yeang, Malaysia) presented his strategies for achieving green design. He showed his ideas of eco-infrastructure, which include not only engineering aspects but also a variety of fields of sustainability. He pointed out that evaluation systems such as LEED or BREEAM are not enough to prepare for the future. He said the world needs to consider Green Eco infrastructure to contain super tall buildings.

Dr. Sungwoo Shin (Professor, Hanyang University, Korea) said the super tall building is an essential part of new urban areas and the sustainable tall building needs to be considered as an alternative in the evolution of the eco-city. He also observed that the government or local government needs to reconsider the value of super tall building at urban design level. Dr. Satyendra K. Ghosh (former director of PCA, USA) presented his experience in achieving energy efficient design by rational selection of a structural system and careful construction that contribute to the solution of environmental issues.

Prof. Takafumi Noguchi (Professor, University of Tokyo, Japan) explained 3 essential technologies to

achieve sustainable concrete structure. The first is to minimize the CO₂ from the concrete structure, the second is the expanded life-cycle of the concrete and the third is the technology of reducing waste from concrete structures.

Symposium 3: SB Evaluation

Professor Raymond Cole addressed issues of globalization of assessment system for sustainable architecture including LEED and BREEAM. He pointed out that these two tools are not just assessment tools, but are now considered as global brands. Prof. Cole showed some of the cases of aggressive marketing of LEED to spread its system to Brazil, Argentina and Italy.



Andrea Moro, Ronald Rovers, Sungwoo Shin

Mr. Nils Larsson (Executive Director of iiSBE) emphasized the problem of the high cost of current assessment systems. He also stressed that those systems are having difficulty in incorporating regional issues so as to perform as an assessment tool in those regions. He said it is very important to develop the future system to take account of regional and urban issues.

Professor Toshiharu Ikaga (Keio University, Japan) presented the CASBEE system, an assessment system unique to Japan. He described the growing demand for CASBEE assessment from local government in Japan. He noted that the requirement for CASBEE assessment will provide an incentive to build sustainably.

Two technical visits

Songdo International City

The city is currently under development on a site covering 5.7km² and including such major projects as an International business complex, a knowledge information industrial complex, a high-tech bio complex, Songdo Landmark City, a high-tech industry cluster, and a port and support complex.

The sustainable features of the Songdo International City include:

- open and green space
- reduction of water consumption, coupled with storage and re-use
- reduction of carbon emissions and energy use
- concern for material flows and recycling
- sustainable city operations.

Pilot project for a sustainable housing model

A sustainable housing model is to be built as a tool to evaluate the performance of integrated environmental-friendly housing, and for evaluating performance verification. The architectural model was developed by the Center for Sustainable Housing, Yonsei University, Korea

In order to prepare for the mandatory greenhouse gas reduction policy in 2013, energy reduction in buildings is a critical issue in Korea.

International Student Design Competition

As a part of SB10 Seoul, an international Student Design Competition for Sustainable Building was hosted.

The purpose of the competition was to discover talented students (undergraduate or graduate) who are attending full-time university courses or had done so in the previous year in an architectural design studio, and who aspire to meet new challenges and pursue sustainability in architectural design and planning. The design competition was also intended to provide opportunities to better understand global environment, and architecture through sustainable building design.

For the final evaluation the judges selected 15 works, and 12 reviewers evaluated works to select the winner of a Grand Prize, two Awards of Excellency and one Honorary mention.

Proceedings

A separate news article about the proceedings has been published (see [here](#)).