



## Sustainable Built Environment Conference 2019 Seoul Smart Building and City for Durability & Sustainability

### Dates

- 12 ~ 13 December, 2019 SBE19 Seoul Conference

### Location

16, Uisadang-daero, Yeongdeungpo-gu, Seoul, Korea  
Bloom Hall, GLAD HOTEL YEOUIDO

### Number of Attendees

202 Participants total, 126 from Korea, 76 from Abroad, 15 Countries shown below.  
Australia (9), Canada (1), China (8), Hongkong (7), Philippines (4), Indonesia (1), Iran (1),  
Singapore (3), Slovenia (3), South Korea (126), Swiss (1), Taiwan (2), UK (4), USA (31), Vietnam  
(1)

### Main Themes of Conference

1. Sustainable Policy and Governance
  - (1.1) Policies to enhance sustainability in the built environment
  - (1.2) Governance for sustainability
  - (1.3) Regulations, standards, and rating system of sustainability
2. Business Models for Sustainability
  - (2.1) Carbon pricing and market
  - (2.2) Sustainable business models for retrofit and new construction
  - (2.3) Business model for zero or nearly-zero building
3. Industry, University and Government Collaboration
  - (3.1) Best sustainability practices in industry, government and university collaboration
  - (3.2) Sustainable research collaboration
  - (3.3) Innovative collaboration and engagements
4. Longevity and Durability
  - (4.1) Longevity of construction systems
  - (4.2) Structure durability
  - (4.3) Asset management
  - (4.4) Longevity and carbon emission
5. Smart City
  - (5.1) Citizen participation
  - (5.2) Smart city governance

- (5.3) Smart city technologies
- (5.4) Smart city best practices
  
- 6. Sustainability in the Built Environment
  - (6.1) Sustainable design, construction, operation & maintenance
  - (6.2) Sustainability for tall building (Environmental issues, resource consumption, culture, social organization, economics, carbon emission and energy)
  - (6.3) Sustainability for existing building
  - (6.4) Future of sustainability in the built environment
  - (6.5) Education for sustainability
  
- 7. Zero Energy Building
  - (7.1) Zero or Nearly-zero energy building
  - (7.2) Zero or nearly-zero operating energy and emissions
  - (7.3) Zero or nearly-zero energy for new building & existing building

## Stats

- Type of Scientific Review: Double blind peer review
- Oral Presentations: 63, Poster Presentations: 56

Following Symposium and Roundtable Discussion were organized

### **Symposium 1 : Policy and Commercialization of Sustainability**

- Chair : Hwanyong Kim (Incheon National University)
- Sungwoo Shin (Chairman, SBE19 Seoul Conference)
- Nils Larsson (iiSBE)
- Annie R. Pearce (Virginia Tech University)

### **Symposium 2 : Longevity and Durability**

- Chair : Xiaoyong Wang (Kangwon National University)
- Xiaoyong Wang (Kangwon National University)
- Insuk Yoon (Induk University)
- Juhyuk Moon (Seoul National University)
- Seyoon Yoon (Kyonggi University)

### **Roundtable Session 1 :**

- Chair : Seungho Yoo (Hanyang University)
- Duncan Smith (University College London)
- Jieun Kim (Korea Planning Association)
- Donghan Kim (Korea Research Institute for Human Settlements)



## Overall Technical Session

We asked all the moderators of parallel Technical sessions to send in bullet point slides and present a short summary of each session at the end of the conference. Which proved to be highly beneficial and practical way to summarize the conference.

### Technical Session 1

Sustainable Policy and Governance

Chair : Seungho Yoo (Hanyang University)

- Behzad Mohammadzadeh (Seoul National University)
- Jaekyoung Kim (Seoul National University)
- Duyhoang Pham (Hanyang University)
- Yu Liu (Northwestern Polytechnical University)
- Minjae Shin (The University of Alabama)
- Le Thi Hong Na (Ho Chi Minh City University of Technology)

### Technical Session 2

Business Models for Sustainability

Chair : Minjae Suh (Sam Houston State University)

- Jin Woo (RMIT University)
- Kwonsik Song (University of Michigan)
- Ly Dang Huy (Hanyang University)
- Nguyen Dang Hoang Nhat Truong (Hanyang University)
- Minjae Suh (Sam Houston State University)
- Sung Yoon (ENVELOPS CO. LTD.)

### Technical Session 3

Industry, University and government collaboration

Chair : Sungjin Kim (University of Alabama)

- Dongnyeok Han (Auburn University)
- Pocheng Chou (Stu-eE University)
- Alvin Lo (Arup, Hong Kong)
- Brian Baewon Koh (Innovative Design, Inc)
- Hyunsik Kim (Hanyang University)
- Youjin Jang (Georgia Institute of Technology)

### Technical Session 4

Longevity and Durability

Chair : Seungmin Lim (Kangwon National University)

- Hansol Kim (Hanyang University)
- Zhengxin Chen (Hanyang University)
- Fahimeh Yavartanoo (Seoul National University)
- Runsheng Lin (Kangwon National University)



- Hamidreza Alinejad (Seoul National University)
- Shafiq Ishak (Hanyang University)
- Seungyong Jeong (Seoul National University)

#### **Technical Session 5**

##### Smart City

Chair : Sungkon Moon (Swinburne University of Technology)

- Sanghee Kim (Seoul National University)
- Tim Lo (LEAF Sustainability Limited)
- Mohammed Gabr (University of Salford)
- Myungjin Chae (Central Connecticut State University)
- Sungjin Kim (University of Alabama)
- Kyubyung Kang (Indiana University-Purdue University Indianapolis)
- Seungho Yoo (Hanyang University)

#### **Technical Session 6**

##### Sustainability in the Built Environment

Chair : Changu Chae (Korea Institute of Civil Engineering and Building Technology)

- Rolf Frischknecht (Treeze Ltd.)
- Ding Yiwei (Hanyang University)
- Jihwan Yang (Hanyang University)
- Vivien Soebiyanto (Bina Nusantara University)
- Xudong Zeng (Chongqing University)
- Hosang Hyun Seoul National University)
- Sunghee Kim (El Bosque Sustainable Architectural Design Lab)

#### **Technical Session 7**

##### Zero Energy Building

Chair : Minjae Shin (University of Alabama)

- Sukjoon Oh (Boise State University)
- Suyeul Park (Korea National University of Transportation)
- Sheila Conejos (Centre for Integrated Building Energy and Sustainability in the Tropics)
- Gahee Kim (Hankyong National University)
- Fida Hussain Siddiqui (Swinburne University)
- Choulwoong Kwon (Hanyang University)
- Youngtae Chae (Cheongju University)

#### **Technical Session 8**

##### Construction and Materials

Chair : Sungchul Bae (Hanyang University)

- Soumen Mandal (Kyungpook National University)
- Sasui Sasui (Chungnam National University)



- Liu Junxing (Hanyang University)
- Andrew Nghiem (Seoul National University)
- Dohyun Jung (Hanyang University)
- Jaeyeon Park (Hanyang University)
- Jitendra Kumar Singh (Hanyang University)

### **Publication**

Full Papers were published (ISBN: 979-11-88813-03-2)

### **Outstanding Contributions / Awards**

Following Awards were given-

- Best Poster Award : 10
- Best Oral Presentation Award : 16

### **Final Comments**

Thank you all for kind support and participation toward successful conference that will extend our global friendship.

On behalf of the SBE19Seoul Organizers

Sungwoo Shin

Chair of the SBE19 Seoul Organizing Committee