



Sustainable Built Environment Conference 2019 Shenzhen

“Paradigm Shift from Green Buildings to Sustainable Cities”

How can we address the global challenges of population growth and climate change through the drivers of multifaceted sustainable urban environments?

Organizers

Shenzhen Green Building Association, and
Science and Technology Research and Development Center, Bureau of Housing & Construction of
Shenzhen Municipality

Co-organizers

China Construction Steel Structure Corp. Ltd.
Shenzhen Institute of Building Research Co. Ltd.
Shenzhen University

Dates

4 December 2019 Welcome Cocktail (pre-event networking)
5 December 2019 Opening Ceremony, 3 Plenary Keynotes Sessions & Reception Party
6 December 2019 15 Parallel Sessions & Closing Ceremony + 3 Green Building Tours

Venue

The Shenzhen University, Houhai Campus, Science and Technology Building
(3688 Nanhai Avenue, Nanshan District, Shenzhen, China)

Number of Participants

A total of 465 participants to the SBE19 Shenzhen, in which the amount of the local participant from Shenzhen is 314; the overseas or from other provinces in China is 151. Below are some of the highlights, Canada (4), German (2), Indonesia (5), Malaysia (2), Singapore (9), Sweden (1), Philipines (3), India (5), USA (2), UK (2), Japan (2), Brazil (5), Netherland (2) and the experts from 13 cities in China, including Beijing, Shanghai, Chongqing, Wuhan, Kunming, Guilin, Shenyang, Dalian, Changsha and Hong Kong.



Photo: The group photo of the SBE19 Shenzhen Conference.

Main Themes of the Conference

1. Low Carbon City Development
2. Renewable Energy Technologies
3. Vertical Greening
4. Innovative Construction Technologies and Products
5. Passive Building Design
6. Policy Incentive and Marker Transformation



Photo: SBE19 Shenzhen – Plenary Keynote Sessions of the Main Conference Hall.

Plenary Keynotes of the SBE19 Shenzhen

Plenary Keynotes (I)

- **Lisa BATE** (Chair of WorldGBC, B+H Architect) “Green Building Development from a Global Perspective”
- **Lee Siang TAI** (Executive Director of BCA, Singapore) “Zero”
- **Johannes Kreissig** (CEO of DGNB GmbH) “Environmentally Friendly Buildings”
- **Prof. Youwei WANG** (Chairman of China Green Building Council) “Issues Related to Green Development in China's Urbanization”



Plenary Keynotes (II)

- **Prof. Jinping OU** (Professor of Civil & Environmental Engineering College, Harbin Institute of Technology (Shenzhen)) “High Seismic Performance Prefabricated-Buildings with BIS or PEDS”
- **Prof. Shuoxian WU** (Professor of South China University of Technology) “Improving the Acoustic Environment”
- **Prof. Qingrui YUE** (President of China Steel Structure Association) “New Development in Diagnostic Engineering”

Plenary Keynotes (III)

- **Guoqiang WU** (Deputy Director, National Center for Schooling Development Programme) “Planning and Construction of Green and Intelligent Campus from the Perspective of Ecological Civilization”
- **Prof. Qingqin WANG** (Vice President of China Academy of Building Research) “New Requirements for Green Building in the New Era - Green Building Evaluation Standard (GB/ T50378-2019)”
- **Prof. Jian GE** (Professor, Executive Vice Dean of Chu Kochen Honors College, Zhejiang University) “Research and Practice on the Planning of Green Eco-District in Hot Summer and Warm Winter Zone”
- **Prof. Qing YE** (Chairman of Shenzhen Institute of Building Science Research Co., Ltd.) “The Value of Ecological City - Exploration of Turning Green to Gold”



Photo: Group photo of all the Keynote Speakers of the SBE19 Shenzhen.

Reception Party

Venue: Barcelona Hall, InterContinental Hotel OCT Shenzhen

- Opening Speech by Xuefan ZHANG (Director of Shenzhen Housing and Construction Bureau)
- Signing Ceremony of Strategic Cooperation between the German Sustainable Building Council and Shenzhen Green Building Association (Frank WANG & Johannes Kreissig)
- Children's Choir and String Quartet Performances



Sub-Theme of the 15 Parallel Sessions

1. "Organic Urban Renewal"
- chaired by Prof. Lei YU, Associate Professor, School of Architecture, HIT, Shenzhen
2. "Adaptive Strategies for Urban Microclimate"
- chaired by Prof. Pengyuan SHEN, Assistant Professor, School of Architecture, HIT, Shenzhen
3. "Prefabricated Building and Intelligent Construction"
- chaired by Dr. Renge LI, President, Research Institute of China Construction Steel Structure Corp. Ltd.
4. "Evaluation of Ecological Environment of Urban Landscape"
- chaired by Dr. Wusheng LIN, Chief Engineer in Shenzhen Junye Building Technology Co., Ltd.
5. "Nature-based Solutions"
- chaired by Prof. Jianxin HU, Former Chief Sustainability Officer of China Merchants Shekou Holdings
6. "Building Lifecycle Assessment and Carbon Emissions"
- chaired by Prof. Lei XIAO, Associate Professor, Vice-Chair of the Department of Landscape Architecture, School of Architecture, South China University of Technology
7. "The Application of the Internet of Things in Smart City Management and Building Energy Conservation"
- chaired by Zhengyu JIANG, Executive Vice-President of Shenzhen Tianan Junye Investment Development Group Co., Ltd.
8. "Heritage Preservation and Revival"
- chaired by Xin WANG, Chief Architect of Shenzhen Institute of Building Research Co., Ltd.
9. "Protection and Continuation of Traditional Dwellings"
- chaired by Prof. Guanhong CHEN, Professional Director of Shenzhen Polytechnic
10. "Environmental Performance Analysis of Sustainable city / Community / Building"
- chaired by Dr. Edison ZHANG, SRT Design Group, Director
11. "Ecosystem Service and Resilient City"
- chaired by Dr. Hongxi WANG, Urban Planning & Natural Resources of Shenzhen Municipality.

12. “Energy-saving Technology of Buildings”
- chaired by Tianchi YU, Director and Chief Architect of Jianxue Architectural and Engineering Design Institute Co., Ltd
13. “Green Innovation Based on Climate Characteristics”
- chaired by Zhimei ZHAI, Deputy Chief Engineer of The First Construction Engineering Company LTD.of China Construction Second Engineering Bureau Shenzhen Branch
14. “Eco-city and Green Building”
- chaired by Zhigang SU, CEO of Shenzhen Wonderland-time Green Building Technology Co., Ltd.
15. “Human Behaviour and Building Sustainability”
- chaired by Junyue LIU, Chief Engineer of Shenzhen Institute Of Building Research Co., Ltd.

Conference Proceedings

Total number of the abstracts (500 words) received: 160
 Scientific paper review process: double-blind peer review
 Total number of the accepted final full papers: 92 papers
 (Acceptance rate: 56%)

The electronic “Conference Proceedings of the SBE19 Shenzhen – A Paradigm Shift from Green Buildings to Sustainable Cities” (757 pages) will be published online at IOP Publishers as open access papers within IOP Conference Series Earth and Environmental Science and indexed in ISI (Web of Science) and Scopus. It will be available shortly.



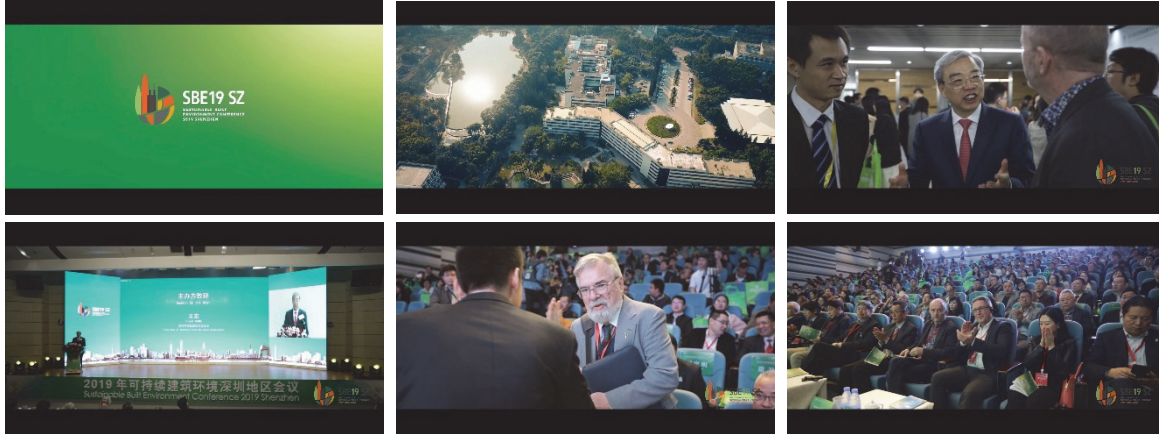
Online Photo Albums of the Conference

All the official photos of the SBE19 Shenzhen can be downloaded online at the SBE19 Shenzhen Conference website (<http://www.sbe19shenzhen.com>). The total number of access is 76,326 as 31 DEC 2019.



SBE19 Shenzhen Video Highlights at the Closing Ceremony

A special edited Video Highlights (2:10) has been presented during the Closing Ceremony which recapped the highlights of the event and sharing the memories among the participants. The video is available online via YouTube. (<https://www.youtube.com/watch?v=vCxX21SdfVg>)



Green Building Tours

1. Steel Structure Museum and CSCEC Steel Building

The museum was officially opened on November 2, 2018. Literally and symbolically, the Steel Structure Museum presents a cultural space in which visitors from all backgrounds can commune. The museum is a physical manifestation of the interconnectedness of technology, industry, history and people. It is the first national and public museum in China with the theme of steel structure, the creation of the China Construction Steel Structure Museum is co-sponsored by China Construction Metal Structure Association and CSCEC Steel Structure.



2. Shenzhen Nanhai Ecoool

This renovation project includes “architecture, interior, and landscape”. The goal is to design a sustainable, green and energy-saving building. In the design, we not only inject new life in the old building but also retained and extended the essential memories of Shekou development history. We also highlighted the low carbon and environmental characteristics of this project. Energy-saving and eco-architecture technologies are the focus of the design. Therefore, after reconstruction, when the building will be in use, it will be in a low-carbon and energy-saving format. Eco-climate buffers such as a green roof, living walls, and landscape water feature were employed to create a microenvironment. By combining the creativeness with the ecology, it is an excellent demonstration case study of urban revitalization, transforming the old factory into a modern, stylish green and ecological building.



3. Shenzhen Institute of Building Research (IBR) Headquarters Building

IBR Headquarters Building is located at the Meilin area in the north of Futian District, Shenzhen, with a total gross floor area of 18,000sq m. It has 12-story above-ground floors and 2-story basement functioning in experiments, R&D, office use, academic exchange, underground car park, recreation and lifestyle facilities, etc. The building design adopts lots of different green features and innovative sustainable technologies, of which decreasing of 767 tons of CO₂ emission annually, and saving 412.7 tce (tons coal equivalent), more than 60% energy saved compared with other offices.



This building has obtained lots of green awards and honors includes National 3-Star (highest level) green building, 2010 Hong Kong Green Building Award - Merit, 2011 China Human Settlement Pattern Project Award, 2011 National Excellent Engineering Design Award - First Prize, FuturArc Green Leadership Award 2011 (by BCI Asia), 2013 World Green Design Project Product Award - Golden Prize (by International Design Federation), DENA Energy Efficiency Award 2013 Nomination, Asia Pacific Awards by WGBC, The 3rd Biennial Top Architecture, Public Building Category, Green and Ecological Design Award, the 3rd Biannual China Award of “Good Design is Good Business” and Best Green Design Award (by Business Week and McGraw-Hill Construction).

