

The 3rd International Symposium on Jointless & Sustainable Bridges (ISJSB 2022)

1. INTRODUCTION

Sustainable development is a holistic concept that has been becoming more important in bridge engineering since the last decades. The reason is mainly related to the need of resource conservation to ensure a sustainable growth in human society. Sustainability deals with durability, maintenance, environmental impact, lifecycle, risk assessment, etc. It associates with uncertainty assessment and optimization procedures for engineers to choose an optimal design, construction, maintenance, etc. The ecological, economic, and social effects have to be jointly considered in the multi-dimensional design approach.

Jointless bridges refer to bridges with continuous superstructures and without expansion joints between the outer ends of its approach slabs, which can meet sustainable development. They have been widely used in developed countries and is being promoted in developing countries. Due to the elimination of expansion joints and sometimes even bearings, jointless bridges with initial economic investment and long-term durability can provide traffic with low noise and smooth riding surfaces, minimize maintenance costs caused by repair and replacement of expansion joints as well as water leakage, and also improve the capability against disaster.

In order to promote the application and development of jointless bridges, the International Association of Jointless Bridges (IAJB) was established in 2014. Since then, workshops on jointless bridges have been held yearly in China and the United States. The jointless bridge terminology, guideline outline, and technical development directions were discussed in the workshops, and significant progress was made in this field.

The 1st and 2nd International Symposium on Jointless & Sustainable Bridges (ISJSB'2016 and ISJSB'2019) were successfully organized in 2016 and 2019 with experts and scholars from the United States, Canada, New Zealand, Italy, France, Spain, Sweden, Austria, Germany, UK, Turkey, China. In-depth discussions and exchanges on topics such as design, construction, maintenance,

and retrofitting of bridges without expansion joints were conducted. Following the previous events, **the 3rd International Symposium on Jointless & Sustainable Bridges (ISJSB 2022) will be held in Fuzhou, China, on November 20-22, 2022.**

2. ORGANIZATION

Organizers:

International Association of Jointless Bridges (IAJB)

Fujian University of Technology (FJUT)

Co-Organizers:

Shenzhen Geokey Group Co., Ltd.

Executive Organizer:

BRIDGE Magazine , Fuzhou University (FZU)

Host Associations:

International Association of Bridge Earthquake Engineering (IABEE)

Asian Concrete Federation (ACF)

Committee of Sustainable Civil Engineering, China Urban Science Research Institute

The Bridge and Structural Engineering Branch, China Civil Engineering Society

The Bridge and Structural Engineering Branch, China Highway Society

Journal of Traffic and Transportation Engineering (in Chinese)

Fujian Highway and Transportation Society, China

3. CONFERENCE LOCATION & FORMAT:

Location: Fuzhou, China

Conference Format: Virtual Presentation - Live Streaming

Zoom Link:

<https://zoom.us/j/7981012528?pwd=U3hZNzR3c3FuS3Radyt3d2pqM28zUT09>

Room ID: 798 101 2528

Password: 123456

4. CONFERENCE THEME (NOT LIMITED TO)

- Research and application of jointless bridges;
- Soil-structure interaction of jointless bridges;
- Seismic response and resilience of jointless bridges;
- Design and calculation of jointless bridges;
- Conversion of existing jointed bridges into jointless bridges;
- Application basis of high-performance and/or new material for jointless bridge;
- Structural health monitoring for jointless bridges;
- Sustainable development technology for bridge engineering;
- Durability of bridges;
- Life-cycle cost of bridges;
- Impact of climate change on bridge construction;
- Holistic approach to sustainable bridges.

5. INTERNATIONAL SCIENTIFIC COMMITTEE

Name	Affiliation
Yeong-bin Yang (Chairman)	Chongqing University, P.R. CHINA
Bruno Briseghella	Fuzhou University, P.R. CHINA
Ian Buckle	University of Nevada, USA
Baochun Chen	Fujian University of Technology, P.R. CHINA
Yiyan Chen	Shenzhen Investigation & Research Institute Co., Ltd., P.R. CHINA
Murat Dicleli	Middle East Technical University, TURKEY
Choi Donguk	Hankyong National University, KOREA
Vinnay Gupta	Indian Institution of Bridge Engineers, INDIA
Rosimarie Helmerich	The Federal Institute for Testing and Research of Materials, GERMANY

Fuyun Huang	Fuzhou University, P.R. CHINA
Yongjian Liu	Chang'an University, P.R. CHINA
Aurelio Muttoni	EPFL (Ecole Polytechnique Fédérale de Lausanne. SWITZERLAND
Camillo Nuti	Roma Tre University, ITALY
Bijan Khaleghi	Department of Transportation, Washington State, USA
Zlatko Šavor	University of Zagreb, CROATIA
Khaled Sennah	Toronto Metropolitan University, CANADA
Anastasios Sextos	University of Bristol, UK
Habib Tabatabai	University of Wisconsin-Milwaukee, USA
Tamon Ueda	Shenzhen University, P.R. CHINA
Yen Lei Voo	University of Botra, MALAYSIA
Gang Wang	Fujian University of Technology, P.R. CHINA
Yuanfeng Wang	Beijing Jiaotong University, P.R. CHINA
Jiangang Wei	Fujian University of Technology, P.R. CHINA
Chen Wu	Fujian University of Technology, P.R. CHINA
Jianzhuang Xiao	Tongji University, P.R. CHINA
Ming Xu	Tsinghua University, P.R. CHINA
QiuHong Zhao	Tianjin University, P.R. CHINA
Yizhou Zhuang	Zhejiang Tech University, P.R. CHINA

6. ORGANIZING COMMITTEE

Chen Wu (Chairman)	Fujian University of Technology, P. R. CHINA
Linda Kuo	International Association of Bridge Earthquake Engineering (IABEE), USA
Gang Wang	Fujian University of Technology, P. R. CHINA
Junhao Chen	Fujian University of Technology, P. R. CHINA
Wei Zhang	Fujian University of Technology, P. R. CHINA
Zhigang Yang	BRIDGE Magazine, P. R. CHINA
Ling Liao	BRIDGE Magazine, P. R. CHINA
Jack Zhao	BRIDGE Magazine, P. R. CHINA
Yekai Chen	BRIDGE Magazine, P. R. CHINA
Li Jin	BRIDGE Magazine, P. R. CHINA

7. PRELIMINARY SCHEDULE

Date	Arrangement		
November 21, 2022	Opening Ceremony (08:30-9:00)	Conference (08:30-17:30)	
November 22, 2022	Conference (08:30-17:30)	Closing Ceremony (17:30-18:00)	Online Salon (20:30-21:30)

8. INVITED SPEECHES

Speakers	Titles
Yeong-bin Yang Chongqing University P.R. CHINA	Recent Advances in Vehicle Scanning method for Bridges
Baochun Chen Fujian University of Technology, P.R. CHINA	Research and Application of New Technologies in Jointless Bridges
Zlatko Šavor The University of Zagreb, CROATIA	Integral bridges - design practice worldwide
Anastasios Sextos University of Bristol, UK	Integral bridge abutments in seismic regions: numerical and experimental investigation
Yen Lei Voo Dura Technology International Sdn. Bhd, MALAYSIA	Use of UHPC Jointless sustainable bridge in Malaysia
Fuyun Huang Fuzhou University, P.R. CHINA	Application of Jointless Bridges in China and German Speaking Countries
Qiuhong Zhao Tianjin University, P.R. CHINA	Pseudo-static Experimental Research on Cyclic Behavior of Skewed Integral Abutment-Pile-Soil System
Murat Dicleli Middle East University of Science and Technology, TURKEY	Cyclic performance of integral bridge steel H-piles due to seasonal temperature variations: experimental testing and finite element approach
Saiid Saiidi University of Nevada, Reno, USA	Resilient Earthquake-Resistant Bridges with A New Generation of Iron-Based Shape Memory Alloys

Yizhou Zhuang Zhejiang University of Technology, P.R. CHINA	Experimental study on mechanical behavior of stepped pile for integral abutment bridge
Chao Xu Tongji University, P.R. CHINA	Geosynthetic-reinforced soil-integrated bridge systems and the development in China
Mustafa Mashal Idaho state university, USA	An emulative cast-in-place prefabricated pier system in seismic regions
Ming Xu Tsinghua University, P.R. CHINA	Discrete element analysis of the cumulative effect of sand pressure behind integral abutment
Changjie Zheng Fujian University of Technology, P.R. CHINA	Seismic response of piles: kinematic pile-soil interaction
Yuanfeng Wang Beijing Jiaotong University, P.R. CHINA	Study on Carbon Emission of Jointless Bridge
Jianzhuang Xiao Tongji University, P.R. CHINA	Sustainability design of concrete structures: Concepts, methods and technologies
Dong-UK Choi Hankyong National University, KOREA	Strength development and shrinkage behavior of recycled aggregate concrete and theoretical modeling
Tamon Ueda Shenzhen University, P.R. CHINA	Sustainability of Concrete Structures
Khaled Sennah Toronto Metropolitan University, CANADA	Sustainable bridge construction using stainless steel
Camillo Nuti Roma Tre University, ITALY	Influence of design strategies to extend the life of existing bridge piers subjected to chloride-induced corrosion in seismic areas through UHPFRC
Yongjian Liu Chang'an University, P.R. CHINA	Temperature action mode of steel-concrete composite girder bridge
Krishna Shrestha City Council, Horsham, AUSTRALIA	Sustainable Development of Bridges in Australia
Bruno Briseghella Fuzhou University, P.R. CHINA	Innovative techniques to improve the seismic performance of Integral Abutment Bridges using Geotechnical Seismic Isolation

9 CONFERENCE SECRETARIAT

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