



Invitation to
7WCSCM
The 7th World Conference on
Structural Control and Monitoring
Qingdao, China, July 22-25, 2018

Welcome to the 7WCSCM

The World Conference on Structural Control and Monitoring (WCSCM) is a premier leading conference, under the auspices of the International Association for Structural Control and Monitoring (IASCM). The WCSCM, held every four years, is aiming at promoting advanced structural control and monitoring technology for a variety of civil, mechanical, aerospace and energy systems. The precedent conferences have been held in Pasadena - USA (1994), Kyoto - Japan (1998), Como - Italy (2002), La Jolla - USA (2006), Tokyo - Japan (2010) and Barcelona - Spain (2014).

The new edition of the WCSCM, 7WCSCM, will be organized by Harbin Institute of Technology in July 2018. The conference will provide international research community a platform to contribute to the state of the art in such multidisciplinary scientific and engineering environment with new results, fresh ideas and future perspectives.

Qingdao, the hosting city of 7WCSCM, is one of most charming cities along the east coast of China. The mild climate, the beautiful sea beach, and Mount Laoshan make Qingdao City a popular health and holiday resort, particularly in summer, for visitors to sightsee and escape the summer heat.

On behalf of the IASCM and the conference organizing committee, I warmly invite you to join the 7WCSCM.

We look forward to meeting with you in Qingdao in July 2018.

Hui Li
Chair of 7WCSCM, 2018
Changjiang Scholarship Professor
Professor of School of Civil Engineering
Harbin Institute of Technology, China

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Shu-xia Yu, BRIDGE Magazine
Ling Liao, BRIDGE Magazine

Important Dates

Special session proposal deadline	April 30, 2017
Abstract submission deadline	October 31, 2017
Acceptance/rejection notice	November 30, 2017
Full paper submission deadline	April 15, 2018 (Extended)
Early bird registration deadline	April 30, 2018
Conference date	July 22-25, 2018

Registration Fee

	Early (by April 30, 2018)	Late
Delegate	600 USD	650 USD
Student	260 USD	300 USD
Accompany	260 USD	300 USD

The registration fee will include: conference proceedings; technical visit; attendance to all scientific sessions; coffee breaks; lunches and dinners; banquet.



Host: The International Association for Structural Control and Monitoring (IASCM)
Sponsor: Harbin Institute of Technology
Committee of Structural Control and Monitoring, CSVE
Co-sponsor: Qingdao University of Technology
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Keynote Speakers



Prof. Charles R. Farrar
Los Alamos National
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Prof. James L. Beck
California Institute of
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Prof. Yozo Fujino
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Prof. Satish Nagarajaiah
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Prof. Hyung-Jo Jung
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Prof. Billie F. Spencer
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Sapienza University of
Rome, Italy



Prof. Weimin Shen
University of Southern
California, USA



Prof. Paul Reynolds
University of Exeter,
UK

Conference Themes

□ **Structural Control:** Feedback active, semi-active vibration control; Passive vibration control; Theoretical and algorithmic developments in feedback control...

□ **Structural Health Monitoring:** Wireless sensor and sensor networks; Artificial intelligence; UAV; Robots; Mobile Crowd sensing technology; Computer vision; Data science and technology; Implementations of SHM, design guidelines and codes of SHM...

□ **Smart Structure and Systems:** New sensors, actuators and devices; Smart materials; Self-healing materials and structures...

□ **Nondestructive Testing and Evaluation (NDT&E):** Robots and pilotless; Virtual reality; Novel and non-traditional NDT&E techniques and applications...

□ **Applications:** Bridges; Buildings; Marine structures; Aerospace and aeronautic structures; Wind energy systems...

Special Sessions

SS01: Recent research advances on structural control and health monitoring in Australia

SS02: Research advances in SHM: Chinese experiences

SS03: Application, research and design on structural control in Japan

SS04: New development of smart devices for structural control

SS05: Structural control of bridges under earthquake or multiple hazards

SS06: Seismic isolation in civil engineering

SS07: Application and testing of new materials and techniques in semi-active vibration control

SS08: Flow controls for wind and structural engineering

SS09: Wind effects and wind-induced vibration control for large-scale structures

SS10: Recent advances in hybrid simulation and real time hybrid simulation

SS11: Development and applications of hybrid testing methods

SS12: Structural monitoring and control of high-speed railway

SS13: Structural control and monitoring of wind turbine structures

SS14: Recent advances in sensing technology for structural health monitoring

SS15: Infrastructure inspection using unmanned aerial and ground vehicles

SS16: Innovations in computer vision for structural monitoring and damage detection

SS17: Computer vision-based sensing and system identification

SS18: Computer vision-based structural health monitoring

SS19: Structural health monitoring with multi-data

SS20: Bayesian inference and uncertainty quantification in structural health monitoring: new algorithms and applications

SS21: Sparse recovery technique in SHM

SS22: Uncertainty-involved structural model updating, damage assessment and reliability evaluation

SS23: Vehicle-bridge interaction and its applications in bridge-weigh-in-motion (BWIM), damage detection, and bridge management

SS24: Inspection & monitoring for risk control and robust maintenance of urban pipelines network system

SS25: Practical estimation of structural displacement and its applications

SS26: Monitoring-based performance assessment of infrastructure

SS27: Monitoring-based life cycle assessment of infrastructures

SS28: Monitoring-based bridge condition assessment and safety warning

SS29: Innovative technologies for system integration, SHM application, and structural performance assessment

SS30: Understanding, mitigating, and utilizing human induced structural responses

SS31: Application of structural health monitoring techniques

SS32: Smart and multifunctional concrete

SS33: Strain-based structural health monitoring: new developments and applications

SS34: Dense arrays of sensors, distributed and quasi-distributed sensors, and associated data, analysis and management

SS35: Innovative developments in structural system identification

SS36: Highway Infrastructure Monitoring

SS37: Recent Development and Future Trend for Research and Application of Structural Control in China

SS38: Structural Health Monitoring of Long-span Bridges

Location

□ Conference Venue

The 7WCSCM will be held in the Shangri-La hotel located in Qingdao city of China. The Shangri-La Hotel in Qingdao is located in the city's business center, close to the financial and government district. The hotel is within walk distance to coastline and other popular tourist attractions.

Address: 9 Xiang Gang Zhong Lu, Qingdao, China



□ Accommodation

As a famous tourist resort, July is the busiest tourist time for Qingdao. Therefore, the hotel room will be hard to get at this time, and reservations in advance will be very important. For the convenience of the 7WCSCM attendees, the Secretariat has negotiated with Shangri-La hotel and Fuxin hotel with limited quantity of rooms and preferential price.

1. Shangri-La Hotel

Add.: 9 Xiang Gang Zhong Lu, Qingdao266071, China

2. Qingdao Fuxin Hotel

Add.: No. 5, Minjiang Rd, South District, Qingdao, China

Reservation link:

<http://www.7wcscm.com/Data/List/Accommodation>

□ About Qingdao City

Qingdao city is situated on the Jiaozhou bay, southern-east tip of Shandong Peninsula, East China. It is an important economic center and coastal city of China, which is famous for its historical and cultural heritages and tourism industry.



Technical Visit

Option 1: Shandong High-speed Jiaozhou Bay Bridge is a 41.58km (16.6 mi) long roadway bridge in eastern China's Shandong province, of which the over-water length is 28.88 km. The Jiaozhou Bay Bridge has three navigable sections: the Cangkou Channel Bridge to the west, the Dagou Channel Bridge to the east, and the Hongdao Channel Bridge to the north. In this project, Shandong High-speed Group (Qingdao) Co., Ltd. has developed "Key technology of non-bottom sealing concrete pouring jacket underwater", which successfully solved the problems of construction of underwater cushion caps, anti-erosion, anti-crashing etc.

Option 2: Qingdao Olympic Sailing Center- Venue of 2018 Shanghai Cooperation Organization Summit (Details to be determined)

Option 3: Qingdao-Jiaodong International Airport (Details to be determined)



Contact

Registration/Exhibits/Sponsors

We are looking for sponsors to organize an exciting conference with us together. We offer an excellent opportunity for your company or institution to present your products and knowledge to the wide community of structural control and health monitoring. For further details, please contact:

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• **Tel:** 010-68028217-603/604

• **Mobile:** Shirley Hou:15890192670

Jack Zhao: 15210199011.

• **Conference website:** www.7wcscm.com