Second Announcement and Call for Papers

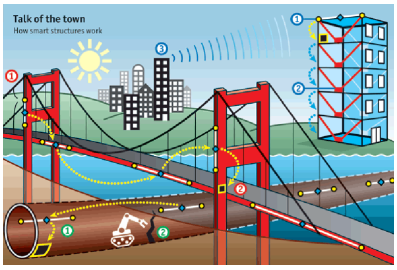
7WCSCM

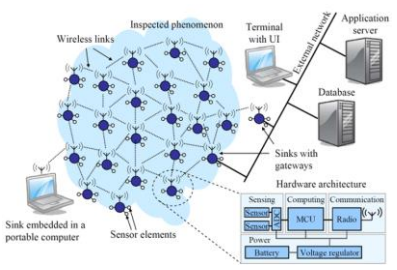
The 7th World Conference on Structural Control and Monitoring

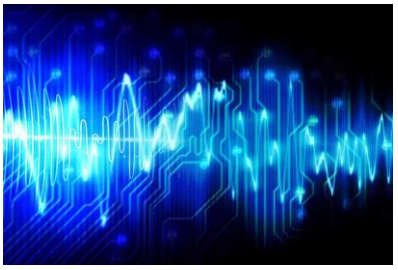
Qingdao, China, July 22-25, 2018









Sponsored by:
Harbin Institute of Technology
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Conference website: http://smc.hit.edu.cn/wcscm2018

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 (IACSM). 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 hosted 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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Conference themes

Structural Control

- Feedback active, semi-active vibration control
- Passive vibration control
- Theoretical and algorithmic developments in feedback control
- Fault tolerant control
- Wireless control schemes
- Large scale systems and feedback architectures
- Control, models and numerical strategies for hybrid testing.
- Models and system identification
- Integration of structural monitoring and control
- Damping and base isolation systems

Structural Health Monitoring

- Monitoring principles: mechanical, acoustic, electrical, and others
- Wireless sensor and sensor networks
- Sensors systems: piezoelectric, fiber optics, electromagnetic, MEMS, and others
- Structural damage identification
- Signal processing, data mining and fusion, sensor fault detection and recovery
- Computer vision-based monitoring and signal processing
- Machine learning and deep learning
- Artificial intelligence
- Condition assessment, safety evaluation, reliability and life-cycle performance-based design
- Implementations of SHM, design guidelines and codes of SHM

Smart Structure and Systems

- New sensors, actuators and devices
- Smart materials
- Physical and semi-physical models
- Energy harvesting
- Self-healing materials and structures
- Self-adaptive structures
- Bio-inspired systems

Nondestructive Examination (NDE)

- Phased array, time of flight diffraction
- Ultrasonic testing
- Guided wave inspection
- Laser-based NDE
- Optical testing
- Visual and image
- Acoustic emission

- Robots and pilotless
- Virtual reality
- Novel and non-traditional NDE techniques and applications

Applications

- Benchmark problems of structural control and SHM
- Bridges
- Buildings
- Marine structures
- Aerospace and aeronautic structures
- Civil infrastructure systems and historical structures
- Robotic and mechanical structures
- Wind energy systems
- Applications of NDE

Special Session

- 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

Exhibits/Sponsors

Exhibits

- Each exhibition area has 4.5 m^2 (3.0×1.5 m) with white laminated boards, lighting, one table (1.0×0.7 m) and two chairs, electric supply, WIFI, and exhibitor's name sign displayed on the front.
- The fee per exhibition area varies from 6,000 to10,000 USD, which includes free registration for up to two participants.
- Interested in becoming exhibitors are welcome to contact **wcscm2018@yahoo.com** for further details.

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. There is a single sponsorship fee of 8,000 USD that includes:

- Your company or institution logo presented in the venue of the conference, website, final program, proceedings.
- Possibility to include company or institution brochures into the conference bags.
- Interested in becoming sponsors are welcome to contact **wcscm2018@yahoo.com** for further details.

Important dates

Special session proposal deadline	April 30, 2017
Abstract submission deadline	September 30, 2017

Acceptance/rejection notice	November 15, 2017
Full paper submission deadline	February 15, 2018
Early bird registration deadline	April 30, 2018
Conference date	July 22-25, 2018

Registration fee

The registration fee, including tour, with early registration applicable are:

	Early	Late
Delegate	600 USD	650 USD
Student	260 USD	300 USD
Accompany	260 USD	300 USD

The registration fee will include:

- A conference proceeding.
- Attendance to all scientific sessions.
- Access to coffee breaks and banquet.

Venue

The 7WCSCM will held in the Shangri-La hotel located in Qingdao city of China. Qingdao is situated on the Jiaozhou bay, southern-east tip of Shandong Peninsula, East China with an area of 11,282 sqm and a population of 8.71 million. It is an important economic center and coastal city of China which famous for its historical and cultural heritages and tourism industry as its feature.

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.

From Qingdao to:

Beijing: 1hr 10mins by airplane / 5hrs by high-speed railway train

Shanghai: 1hr 20mins by airplane / 6hrs by high-speed railway train

Hongkong: 3hrs 10mins by airplane

Jinan: 2.5hrs by high-speed railway train

Contact

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