

## Special Issue on Technology Developments in Structural Health Monitoring and Integrity Maintenance

### Call for Papers

Structural health monitoring (SHM) has gained a significant number of attentions from the engineering communities in the past two decades, which integrates the knowledge of a variety of disciplines including structural engineering, material science, computer science, signal processing, and data management. A main purpose of the development of an SHM system is deemed to facilitate the routine inspection and maintenance activities of the targeted engineering infrastructures. With the aid of an instrumented long-term SHM system, the structural behavior and safety performance of the structure can be promptly evaluated by use of the huge amount of measurement data, and the optimal maintenance schedules can be executed by the infrastructure managers. These aspects might be addressed in the special issue proposal. It includes the connectivity and information exchange between the participating institutions and individual members, the awareness of the SHM and integrity maintenance disciplines and tools among end users, and essential reference materials for the situations where a ranking of structures to be rehabilitated is necessary because of insufficient budget available.

Therefore, in the light of the above considerations, we invite investigators to contribute original research papers as well as review papers for this special issue that aims at becoming an international forum for researchers and practitioners to summarize the most recent advances, progress, and ideas in the field of the structural health monitoring and integrity maintenance and its application. Potential topics include, but are not limited to:

- Smart, bioinspired, nanometer, wireless, and remote sensing technology
- Sensor placement and optimization strategies
- Data compression, cleaning, mining, and fusing technology
- Pattern recognition, feature extraction, and damage detection and assessment
- Design, retrofit, maintenance, renewal, and risk management of civil infrastructure

- Application of SHM for heritage structures, historical monuments, and old bridges

Before submission authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/tswj/guidelines/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/tswj/civil.engineering/tdsi/> according to the following timetable:

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### Lead Guest Editor

**Ting-Hua Yi**, School of Civil Engineering, Dalian University of Technology, Dalian 116023, China; [yth@dlut.edu.cn](mailto:yth@dlut.edu.cn)

### Guest Editors

**Ying Lei**, School of Architecture and Civil Engineering, Xiamen University, Xiamen 361005, China; [ylei@xmu.edu.cn](mailto:ylei@xmu.edu.cn)

**Hua-Peng Chen**, School of Engineering, University of Greenwich Central Avenue, Chatham Maritime, Kent ME4 4TB, UK; [h.chen@greenwich.ac.uk](mailto:h.chen@greenwich.ac.uk)

**Xiao-Wei Ye**, Department of Civil Engineering, Zhejiang University, Hangzhou 310058, China; [cexwye@zju.edu.cn](mailto:cexwye@zju.edu.cn)

**Fei Kang**, School of Civil Engineering, Purdue University, West Lafayette, IN 47907, USA; [fkang@purdue.edu](mailto:fkang@purdue.edu)

**Hao Wang**, School of Civil Engineering, Southeast University, Nanjing 210096, China; [wanghao1980@seu.edu.cn](mailto:wanghao1980@seu.edu.cn)