Structural Health Monitoring Using Sensors and Machine Learning

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Message from the Guest Editors

Dear Colleagues,

The need to carry out structural health monitoring (SHM) for old structures is growing due to the rising demand for infrastructure and transportation structure facilities. This issue focuses on the application of the most recent sensing technology as well as machine learning to structural health monitoring. This issue aims to gather research relating to innovative SHM methods that utilise the newest sensing and machine learning technologies to generate efficient and consistent techniques. We welcome research in the field of sensor-based SHM and machine learning aiming to supplement or replace conventional manual inspections, including the latest experimental and theoretical studies, findings, and computational investigations.

Topics of interest include:

- Structural health monitoring;
- Digital twins;
- Machine learning;
- Damage detection;
- Artificial intelligence;
- Guided wave testing;
- Acoustic emission;
- Vibration;
- Non-destructive testing;
- Signal processing;
- Real-time monitoring;
- Modal analysis/updating;
- Intelligent algorithms for data mining;
- Optimal sensor placement;

Special Issue

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Message from the Editor-in-Chief

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