

Special Issue

Advanced Sensing Technology in Structural Health Monitoring

Message from the Guest Editors

Public safety, cultural heritage preservation, and sustainable urban growth are among the most important political and technical concerns in advanced countries. Because of this, assessing the health and functionality of the current infrastructure and buildings represents a crucial need that enables decision-makers to set up the optimal lines of intervention and priorities to enhance patient safety and quality of life. To develop integrated techniques and procedures investigating geotechnical and structural aspects as well as the diagnostics of buildings, distributed multi-sensor networks are required to cover entire structures or groups of structures in wide areas. Numerous factors must be taken into account to develop robust and trustworthy techniques for structural health monitoring, as well as to guarantee widespread validity, easy field application, and affordability, including the following:

- Sensor type, number, and positioning;
- Uncertainty analysis;
- Validation of data;
- Metrological traceability;
- In field calibration of sensors;
- Validation of data processing techniques.

Guest Editors

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