



sensors



Special Issue Reprint

Smart Sensors for Structural Health Monitoring

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Smart sensors are technologies designed to facilitate the monitoring operations. For instance, power consumption can be minimized through on-board processing and smart interrogation algorithms, and state detection enhanced through collaboration between sensor nodes. Applied to structural health monitoring, smart sensors are key enablers of sparse and dense sensor networks capable of monitoring full-scale structures and components. They are also critical in empowering operators with decision making capabilities. The objective of this Special Issue is to generate discussions on the latest advances in research on smart sensing technologies for structural health monitoring applications, with a focus on decision-enabling systems. This Special Issue covers a wide range of related topics such as innovative sensors and sensing technologies for crack, displacement, and sudden event monitoring, sensor optimization, and novel sensor data processing algorithms for damage and defect detection, operational modal analysis, and system identification of a wide variety of structures (bridges, transmission line towers, high-speed trains, masonry light houses, etc.).



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