Special Issue

Smart Sensors and Physics-Based Machine Learning for Structural Health Monitoring

Message from the Guest Editor

Recent advances in Smart Sensor Systems and Artificial Intelligence (AI) have opened vast possibilities for the development of disruptive innovations in the field of Structural Health Monitoring (SHM). In their broadest sense, smart sensors are designed to mitigate operating and efficiency limitations related to traditional monitoring solutions. These may range from sensors incorporating on-board microprocessing and state interrogation, sparse and dense sensor networks capable of detecting local and global pathologies, to novel composite materials with self-diagnostic properties. In addition, the increasingly frequent implementation of AI algorithms in the realm of SHM is enabling unprecedented possibilities to link monitoring signals to decision-making. Particularly promising are physics-based AI applications, enabling the injection of engineering knowledge and expertise into decision-making steps. In this light, the aim of this Special Issue is to generate discussions on the latest advances in research on smart sensing technologies and physics-based AI for SHM. For detailed information, please visit here. Dr. Enrique García Macías
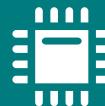
Guest Editor

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Deadline for manuscript submissions

closed (30 June 2022)

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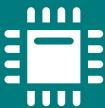
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About the Journal

Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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