Special Issue

Smart Sensors for Machine Condition Monitoring and Fault Diagnosis

Message from the Guest Editor

The use of smart sensors in industrial applications has become increasingly important in recent years; they allow us to collect, analyze, and act on data in real-time, so as to improve productivity, efficiency, and safety. This Special Issue aims to provide a platform for researchers and practitioners to share their latest findings, insights, and experiences related to the development, deployment, and use of smart sensors for machine condition monitoring and fault detection. We invite submissions of original research papers, review articles, and case studies that address the following topics (but are not limited to):

- Novel smart sensor technologies and their applications in machine condition monitoring
- Signal processing and data analysis for sensor-based fault detection
- System state prognosis
- Machine learning and artificial intelligence techniques for sensor data analysis
- Robustness and reliability of sensor-based monitoring systems
- Integration of sensor data with other types of data (e.g., maintenance records, environmental data) for system health management
- Applications of sensor-based monitoring systems in industrial settings

Guest Editor

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Deadline for manuscript submissions

closed (25 September 2025)



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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.

Editor-in-Chief

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