

Special Issue

Condition Monitoring and Fault Diagnosis for Smart Manufacturing

Message from the Guest Editors

The growing demand for reliability and efficiency in Smart Manufacturing systems has elevated the importance of online condition monitoring and fault diagnosis. Advanced sensor networks play a pivotal role in capturing real-time data, enabling the early detection, localization, and prediction of anomalies to prevent system failures and unplanned downtime. This Special Issue, Condition Monitoring and Fault Diagnosis for Smart Manufacturing, aims to showcase the latest research achievements and practical applications in this domain. We invite submissions that explore innovative sensor technologies, robust data-acquisition architectures, and the integration of artificial intelligence (AI) algorithms to enhance fault detection and diagnostic capabilities. Topics of interest include, but are not limited to, the following:

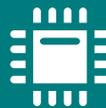
- Development of novel sensor materials, designs, and fusion strategies;
- AI-driven data analysis and anomaly detection techniques;
- Edge computing and hybrid edge-to-cloud solutions for low-latency, real-time monitoring; · Digital-twin and model-based diagnostic frameworks;
- Case studies demonstrating deployments in manufacturing, aerospace, transportation, and energy sectors.

Guest Editors

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Dr. Pengfei Zhang
Prof. Dr. Naohiko Sugita

Deadline for manuscript submissions

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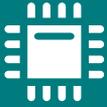


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Message from the Editor-in-Chief

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.

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