Special Issue

Sensors for Predictive Maintenance of Machines

Message from the Guest Editor

This Special Issue (SI) is aimed at providing a platform for researchers and developers to share their most current results in machine condition monitoring, structural health monitoring, signal processing for fault detection and diagnosis, smart sensing and edge computing, and non-destructive testing (NDT). Topics of interest include the application of smart sensors and pre-trained large AI models to analyze vibration and acoustic data, text data, image data and voice data for machine predictive maintenance. Topics of interest include, but are not limited to:

- Al-based machine predictive maintenance
- mechanical fault detection and diagnosis
- big data analytics for condition/health monitoring
- failure trending and prognosis
- structural health monitoring methods, technologies and systems
- advanced signal processing for condition/health monitoring
- smart and novel sensors for condition/health monitoring
- sensor networks and data fusion for fault diagnosis, failure prognosis and NDT

Guest Editor

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Deadline for manuscript submissions

closed (25 June 2025)



Sensors

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Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



mdpi.com/si/197125

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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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