Special Issue

Advanced Sensing and Fault Diagnosis for Complex Manufacturing Processes

Message from the Guest Editors

Dear colleagues, Due to the development of advanced sensing techniques, vast quantities of data are produced daily in complex manufacturing processes. To make the most and the best use of the available data, data-driven techniques have been the subject of extensive research in recent years. Compared with traditional model-based techniques, data-driven methods can not only save in costly modelling processes, but also obtain valuable information from the available process data for real-time process maintenance. Then, abnormal events including different types of faults can be diagnosed in a timely manner. Due to the ever-increasing complexity that exists in manufacturing processes, there are many new challenging problems to be solved in this field, such as fault root-cause analysis for large-scale, plant-wide processes; advanced sensing, such as image and voiceprint-based process monitoring; and fault diagnosis in the distributed framework, among others.

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Deadline for manuscript submissions

20 November 2025

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/195843

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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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