Special Issue

Data Acquisition and Processing for Fault Diagnosis

Message from the Guest Editors

Monitoring engineering systems to identify when a failure has occurred and determine its nature, location, and severity is a current approach designed to increase the operational safety of machines and structures. In the age of Industry 4.0, this approach is more topical than ever. Cyberphysical systems must allow for self-assessment, which involves physical measurements, their transformation into digital information, and autonomous decision-making. Global control methods, based on vibration analysis, are most suitable for this purpose, because sensors occupy fixed positions and can be placed where humans themselves find it difficult to reach. In recent decades, research has been connected to various fields such as advanced sensor technologies, measurement techniques, signal processing methods, and statistical decision-making algorithms to design procedures to assess the condition of machines and structures. This issue will include papers that address all aspects related to fault detection and identification, considering sensors, measurement techniques, signal processing, and classification algorithms.

Guest Editors

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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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