Special Issue

Acoustic Sensing for Condition Monitoring

Message from the Guest Editors

Acoustic sensing has emerged as a powerful tool for condition monitoring in various engineering fields, including mechanical health monitoring and structural health monitoring. Techniques such as ultrasonic sensing and acoustic emission enable real-time, non-invasive monitoring, making them valuable for detecting damage, wear, fatigue, and other faults. These methods are widely applied in industries such as civil infrastructure, aerospace, automotives, and manufacturing to enhance safety, reliability, and predictive maintenance. Recent advances in signal processing, sensor fusion, machine learning, and distributed sensing networks have significantly improved the reliability and efficiency of acoustic-based condition monitoring systems. This Special Issue aims to gather cutting-edge research on acoustic sensing technologies for condition monitoring, covering both methodological innovations and practical applications. We invite original contributions focusing on novel sensing techniques, real-world case studies, and advanced data analysis methods.

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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