Special Issue

Sensor-Driven Anomaly Detection Using Deep Learning Techniques

Message from the Guest Editor

This Special Issue highlights cutting-edge deep learning approaches that automatically extract meaningful patterns, model complex temporal and spatial dependencies, and detect deviations in sensor data without relying heavily on labeled datasets. We welcome high-quality submissions presenting novel methods spanning supervised, unsupervised, and semi-supervised learning, multimodal sensor fusion, synthetic data generation, and real-time deployment strategies. Emphasis will be placed on experimental rigor, including validation on real sensor data or physical testbeds, comparison against strong baselines, use of public datasets when applicable, and promotion of reproducibility through code and data availability. Applications of interest include, but are not limited to, biomedical sensing, industrial IoT, environmental monitoring, smart infrastructure, and autonomous systems. By addressing these challenges, the Special Issue aims to advance sensor-driven anomaly detection methods that are robust, interpretable, and practical for deployment in real-world, dynamic environments. For more details, please visit here.

Guest Editor

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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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