Special Issue

Innovative Technologies and Applications in Engineering Sensing Through Deep and Machine Learning

Message from the Guest Editor

The pervasive integration of deep learning (DL) and machine learning (ML) in engineering sensing technologies marks a significant paradigm shift, providing unparalleled advancements in sensor fabrication, deployment, and calibration. These technologies are central to innovating new sensing modalities and methodologies, addressing the growing complexity and evolving demands of contemporary engineering challenges. The aim of this Special Issue is to highlight and promote recent advancements in algorithm-assisted sensing and its applications within the engineering field, covering aspects from sensor pre-processing, data collection, and analysis to practical engineering applications utilizing machine learning and deep learning. We are interested in a variety of topics, including but not limited to:

- Enhancing sensing accuracy with ML/DL;
- ML/DL-supported sensor fabrication, deployment, and calibration;
- Advanced data classification and prediction through ML/DL;
- Applying ML/DL-assisted sensing in diverse engineering scenarios;
- ML/DL algorithm optimization in engineering sensing;
- Targeted optimization strategies for applying ML/DL in engineering scenarios.

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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