

Special Issue

Edge Computing, Real-Time Data Processing, and Holistic Methods for Imaging Sensors

Message from the Guest Editors

This Special Issue will publish original R&D results and review articles on Edge CMOS and smart image sensors that innovatively use edge computing, compressed sensing, and other real-time, data-driven methods including deep learning to enhance the image and pixelated sensor hardware, and holistically integrated approaches to data acquisition and data processing at the edge. Topics of interest include but are not limited to the following:

- AI/ML-enhanced CMOS and other imaging modalities for offline and real-time processing of image data;
- AI/ML deployment with CMOS and other imaging modalities for real-time collection of data;
- AI/ML for sparse imaging using CMOS and other sensors;
- Uncertainty quantification, error corrections in CMOS and other imaging modalities;
- Novel architectures to combine hardware (CPU, GPU, FPGA, ASIC) with
- algorithmic (ML, neural network) and augmented domain knowledge;
- Theoretical foundations to accelerate hardware and algorithmic (ML, NN) integration;
- Digital twin applications and other related topics.

Guest Editors

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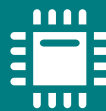
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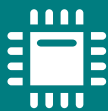


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Message from the Editor-in-Chief

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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