



Smart Image Sensors

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Message from the Guest Editors

Dear Colleagues,

Cameras are pervasively used in a wide range of applications, including monitoring and surveillance, crowd analysis, traffic control, precision agriculture, remote sensing, and manufacturing. The goal of this SI is to explore ongoing work aimed at tackling the big data challenge in future imaging applications by pushing computation closer to image sensors and exploit the massive parallel nature of sensor arrays to filter out noisy data early in the capture process and provide only structure data to high-level processing and knowledge inference stages. We are interested in vertically integrated technology, such as focal plane sensor processors (FPSP) and vision sensors that incorporate massively-parallel and possibly hierarchical architecture in the sensor, along with artificial intelligent algorithm to directly infer the scene at the source of data. The following topics are of interest.

- Advanced image sensor architectures
- In-Sensor computation for image processing applications
- Integrated learning and knowledge inference in image sensors
- Technology and fabrication

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sensors



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Message from the Editor-in-Chief

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