IEEE Journal of Selected Areas in Sensors

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IEEE Journal of Selected Areas in Sensors Special Section on

Emerging Technologies in Electromagnetic Wave-based Sensing and Imaging

It is intended that this Special Section of IEEE Journal of Selected Areas in Sensors (JSAS) will show the state-of-the-art electromagnetic wave-based sensing and imaging technologies. Wireless sensors and systems, such as radar, lidar, RFIDs, wake-up radio (WUR) and wireless sensor networks, have been widely used in various scenarios, including automotive safety, surveillance systems, environmental monitoring, threat detection, biosensing and constant vital signal monitoring in clinical practice, food quality monitoring, non-invasive evaluation of civil infrastructure health, automated quality control in industry, and internet-of-things (IoTs) applications. In general, wireless sensing is an interdisciplinary and multispectral research field that requires expertise in high-frequency electronics, optics, photonics, electromagnetics, and signal and information processing to cover the entire system perspectives, including sensor design and integration, antennas, circuits, energy harvesting and management, protocol development, algorithm formulation, data acquisition systems, and analytics. This Special Section will focus on recent advances on wireless sensors, integrated systems and emerging applications spanning the electromagnetic spectrum from microwave to lightwave.

Original research contributions, tutorials and review papers are sought in sensing and imaging related areas including (but not limited to):

- RF, microwave, millimeter-wave, THz, and optical sensors and sensing systems
- Radar and Lidar
- RFICs, MMICs, mixed-signal circuits, antennas, and components for sensing and imaging
- Silicon and beyond-silicon photonic sensors and arrays.
- Passive and battery-free wireless sensors, and energy harvesting for sensors
- Radio-frequency identification (RFID) and IoT sensors
- Wearable, implantable, and textile wireless sensors
- Signal processing and image interpretation for EM-based diagnosis and detection, and uncertainty quantification using new algorithms
- Novel real-life data-driven applications to radar, lidar, remote sensing, and telemetering

Solicited and invited papers shall undergo the standard IEEE Journal of Selected Areas in Sensors (JSAS) peer review process. All manuscripts must be submitted on-line, via the *IEEE Author Portal*, see https://ieee.atyponrex.com/journal/jsas. When submitting, please indicate in the "Manuscript Type" roll down menu that the paper is intended for the "**2024 Electromagnetic Wave-based Sensing and Imaging**" Special Section. Authors are particularly encouraged to **suggest names of potential reviewers** for their manuscripts in the space provided for these recommendations. For manuscript preparation and submission, please follow the guidelines in the *Information for Authors* at IEEE Journal of Selected Areas in Sensors web page, http://ieee-jsas.org/

Deadlines:

· Manuscript Submission:	September 30, 2023
· Completion of First Review:	November 30, 2023
· Revised Manuscript:	December 31, 2023
· Completion of Final Review:	January 31, 2024
· Publication:	Q1 2024

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