IEEE Journal of Selected Areas in Sensors

CALL FOR PAPERS

IEEE Journal of Selected Areas in Sensors Special Section on

Advances in Sensing, Computation, and Control for Cyber-Physical Systems

Cyber-Physical Systems (CPS) are accelerating the global digital transformation across sectors such as healthcare, manufacturing, transportation, and smart cities. With the rapid convergence of AI, 5G/6G, IoT, and intelligent sensing technologies, CPS are becoming increasingly interconnected, autonomous, and adaptive.

Recent advances in integrated sensing, real-time control, and AI-driven data processing are enabling CPS to operate safely and efficiently in complex environments. However, these developments also bring new challenges in scalability, security, trust, and privacy, particularly as systems evolve toward multi-agent, real-time, and data-intensive architectures.

This special section of IEEE JSAS invites high-quality contributions that advance novel sensing architectures, real-time data processing, and intelligent control mechanisms for enabling reliable, secure, and scalable CPS. Interdisciplinary studies that bridge sensor innovation, computation, communication, and decision-making are particularly encouraged.

We welcome original research articles, tutorials, and review papers in the area of Advances in Sensing, Computation, and Control for Cyber-Physical Systems, including but not limited to:

1. Integrated sensing technologies for smart environments
2. Real-time control and adaptive actuation in CPS
3. Computational and data processing methods for real-time systems
4. Emerging security, trust, and privacy mechanisms for collaborative CPS
5. Intelligent CPS applications for smart cities, transport and infrastructure
6. Healthcare and biomedical CPS innovations
7. Autonomous systems, robotics, and multi-agent CPS
8. The impact of 5G/6G and IoT on CPS performance and scalability
9. AI-driven sensor fusion and predictive control

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 "Advances in Sensing, Computation, and Control for Cyber-Physical Systems" Special Section. Authors are particularly encouraged to **suggest names of potential reviewers** for their manuscripts in the space provided for these recommendations in *Manuscript Central.* For manuscript preparation and submission, please follow the guidelines in the *Information for Authors* at IEEE Journal of Selected Areas in Sensors web page, https://ieee-jsas.org/

Deadlines:

- Manuscript Submission: 30th October 2026
- Initial Decision Notification: 15th February 2027
- Revised Manuscript Due: 15th March 2027
- Final Decision Notification: 15th April 2027
- Final Manuscript Due: 15th May 2027

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