

## Special Issue

# Perception and Intelligent Control for Cyber–Physical Systems: From Robotics to Autonomous Ecosystems

### Message from the Guest Editor

This Special Issue focuses on the integrated roles of advanced perception, learning algorithms, and intelligent control in enabling autonomy for robotic and unmanned systems. It aims to showcase cutting-edge research that bridges the gap between theoretical innovation and practical application, emphasizing systems that can operate, adapt, and cooperate in complex, real-world environments. The scope:

- Novel sensing technologies and multi-sensor fusion for environment perception and state estimation.
- Machine learning and AI-driven control strategies.
- Digital twins for autonomous systems, dynamic modeling and synchronization between physical robots.
- Twin-guided perception, predictive maintenance, and real-time replanning.
- Human-in-the-loop interaction and teleoperation via immersive digital twins.
- Autonomous navigation, decision-making, and motion planning under uncertainty.
- Multi-robot systems: distributed control, collaborative perception, and swarm intelligence.
- Human–robot interaction, safe collaboration, and trustworthiness.
- Real-world applications in areas such as industrial automation and healthcare robotics.
- Middleware and software frameworks for autonomous cyber–physical systems.

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### Guest Editor

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### Deadline for manuscript submissions

15 March 2026



## Electronics

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## About the Journal

### Message from the Editor-in-Chief

*Electronics* is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

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### Editor-in-Chief

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