Special Issue

Artificial Intelligence for Cyber-Physical Systems

Message from the Guest Editor

This Special Issue focuses on emerging trends in AI for CPS with a transformative impact on key sectors such as healthcare, manufacturing, transportation, construction, and industry. Topics include, but are not limited to, the following:

- Foundations AI/ML techniques of CPS;
- Explainable AI for CPS;
- AI-driven automation and control;
- Safety and resilience for CPS;
- Smart architectures and networking for CPS;
- Human–AI collaboration in CPS;
- Sensing and monitoring in CPS;
- Predictive maintenance and reliability;
- Emerging AI techniques in CPS;
- Edge AI for CPS;
- Specification languages and requirements;
- Autonomy in CPS;
- Design, optimization techniques, and synthesis;
- Testing, verification, certification;
- AI for CPS security;
- Cyber, trust, and privacy in CPS;
- Tools, testbeds, demonstrations, and deployments;
- Applications of AI in CPS in specific sectors, healthcare, manufacturing, infrastructure networks, transportation, construction, energy systems, aerospace, etc.;
- Data analysis and management for CPS;
- Ethical considerations and social implications of AI in CPS;
- AI and the future of CPS.

Guest Editor

Dr. Pei-Chi Huang

Department of Computer Science, University of Nebraska at Omaha, Omaha, NE 68182, USA

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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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Prof. Dr. Flavio Canavero
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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