Special Issue

Cyber-Physical Systems of Industry 4.0: Electronic Interface for Sensor and Actuator Systems

Message from the Guest Editors

Cyber-physical systems are equipped with sensors and actuators via an electronic interface part of the Internet of Things (IoT), the basis of the future intelligent and autonomous machines in Industry 4.0. Sensors and actuators are generally analog devices characterized by their electrical parameters. They are combined with innovative signal conditioning, analog-to-digital conversion, bus interfacing, data processing and communication, playing a key role in cyber-physical systems. The electronic interface connected directly to the sensor element must ensure the condition of the signal without reducing its quality below the current level commonly found in mechatronics or adaptronics, by including functions at a higher hierarchical level, such as self-testing, self-calibration, self-diagnosis, self-repair, data quality evaluation, local data processing and high-performance models of data exchange. The purpose of this Special Issue is to explore advanced and visionary solutions in terms of the electronic interface for sensor and actuator systems.

Guest Editors

Dr. Ioan Burda

Physics Department, Babes-Bolyai University, 400084 Cluj-Napoca, Romania

Dr. Inhee Lee

Electrical Engineering and Computer Science, University of Pittsburgh, Pittsburgh, PA 15261, USA

Deadline for manuscript submissions

closed (15 September 2023)

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/153357

Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

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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.

Editor-in-Chief

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

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