

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.

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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 guest-edited by leading experts in selected topics of interest.

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