



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

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Message from the Guest Editors

Dear Colleagues,

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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Message from the Editor-in-Chief

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