

## Special Issue

# Smart Sensors Application in Predictive Maintenance

### Message from the Guest Editors

Some research directions for smart sensors can be considered, as follows. Sensors will become real smart sensors, characterized by the following: intelligent measurement units that self-monitor, transmit status diagnoses to the operating system, and create a reliable network of measurement and calibration data. Sensors will be used for the maintenance and security of machines and devices. Predictive maintenance for machines and devices will become increasingly more efficient, easier, cheaper, and improve uptime. In the future, maintenance will rely on sensors instead of being carried out according to a needs-based timetable. Safety will also improve because unsafe situations will be easily predicted. Autonomous wireless-connected sensors will be possible. Sensors will be self-learning over the entire lifespan without maintenance, modifications, or calibration. The possibilities and areas of application for robot technology will increase significantly. Old and new technologies at the chip level are arising.

### Guest Editors

Prof. Dr. Constantin Volosencu

Faculty of Automation and Computers, Department of Automation and Applied Informatics, Politehnica University of Timisoara, 300223 Timisoara, Romania

Prof. Dr. Boon-Chong Seet

Department of Electrical and Electronic Engineering, Auckland University of Technology, Private Bag 92006, Auckland 1142, New Zealand

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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sensors@mdpi.com](mailto:sensors@mdpi.com)

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### Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro  
Department of Electrical and Information Engineering, Politecnico di  
Bari, Via Orabona 4, 70126 Bari, Italy

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