

Special Issue

Technological Challenges and Trends in Sensor-Based Smart Production Ecosystems

Message from the Guest Editor

The demands that have originally triggered the initiative Industrie 4.0 in Germany, such as higher flexibility, smaller lot sizes, or manufacturing on demand, are not only relevant for production plants within enterprise but also for the cooperation between enterprises. One example are networks of suppliers and supply chain management where overarching objectives, such as sustainability and resilience, are becoming increasingly important. This Special Issue asks for papers that describe the technological challenges and trends in this transition. The following topics shall be addressed:

- business models, use cases, and application scenarios;
- open manufacturing as a service (Smart Factory Web);
- role of and compliance with international IT standards;
- usage of Industrie 4.0 concepts, e.g., asset administration shell;
- cybersecurity risks and measures in production ecosystems;
- AI systems engineering;
- data sovereignty (needs, concepts, and technologies);
- role of international initiatives (such as GAIA-X, International Data Spaces (IDS), and Catena-X).

Guest Editor

Dr. Thomas Usländer

Fraunhofer IOSB, Head of Department, 176131 Karlsruhe, Germany

Deadline for manuscript submissions

closed (30 April 2024)



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

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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