Special Issue

Nonlinear Model-Based Fault Detection for Industrial Applications

Message from the Guest Editors

Motivated by the need for reliable and safe modern industrial systems, Fault Detection and Isolation (FDI) schemes are the most sought-after solutions in the last two decades. However, model-based FDI approaches have been mostly designed for the simple or linearized model of systems. This also requires the accurate knowledge of system dynamics. Moreover, the inevitable sources of unknown nonlinearities, model uncertainties, exogenous disturbances, and inadequate measurable outputs make the FDI design for industrial systems This motivates the aim of this Special Issue of *Sensors*. Accordingly, I cordially invite researchers to contribute original and unique articles, as well as review papers. The topics of interest include (with emphasis on practical industrial systems), but are not limited to:

- Condition monitoring;
- Fault detection and isolation;
- Data-driven approaches including machine learning methods;
- Fault detection and diagnosis;
- Incipient faults;
- Industrial systems;
- Model-based approaches;
- Nonlinear models;
- Observer design;
- Unknown inputs.

Guest Editors

Dr. Hamed Habibi

Automation Department, University of Luxembourg, 4365 Esch-sur-Alzette, Luxembourg

Dr. Silvio Simani

Department of Engineering, University of Ferrara, 44122 Ferrara, Italy

Deadline for manuscript submissions

closed (10 May 2023)

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/124325

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

mdpi.com/journal/sensors

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/journal/sensors

MDPI

About the Journal

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

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)