Special Issue

Recent Trends in Sensor Fusion Algorithms Using Intelligent Signal Processing Methods

Message from the Guest Editors

The increasing popularity of artificial intelligence (AI) has led to its application in various fields. With the widespread use of AI, sensor-fusion-powered signal processing methods have become extremely important. AI serves as the soft power source for cybernetic systems to perform various delicate tasks. The movement of robots is measured by multiple sensors, and the sensors provide data for subsequent motion to participate in a decision-making process based on data analysis, which forms a complete closed loop. AI can be applied for data processing and pattern recognition, and it allows computers to learn without programming and process large amounts of data in a short period of time. This allows researchers to focus on certain tasks in greater depth. Potential topics for this Special Issue include, but are not limited to, the following:

- AI-powered sensor signal processing;
- Intelligent analysis and diagnosis methods;
- Optimization of intelligent control using sensor fusion;
- Explainable fault diagnosis methods for sensors;
- Computer vision-based sensing;
- Coordinated control of multiple sensors;
- Stability analysis of sensors using AI.

Guest Editors

Dr. Hongtian Chen

Dr. Yiyang Chen

Prof. Dr. Engang Tian

Prof. Dr. Hui Yu

Deadline for manuscript submissions

closed (28 February 2025)

Machines

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.7

mdpi.com/si/162622

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

mdpi.com/journal/machines

Machines

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.7

mdpi.com/journal/machines

About the Journal

Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.
Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.
There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso
CISE - Electromechatronic Systems Research Centre, University of Beira Interior, Calçada Fonte do Lameiro, P-6201-001 Covilhã, Portugal

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1 (Control and Optimization)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).