

## Special Issue

# New Localization Methods and Motion Tracking Algorithms for Mechatronic Systems, Robots and Unmanned Vehicles

### Message from the Guest Editors

The localization problem of mobile robots/mechatronic systems is the first critical task that needs to be addressed in robot control applications. This Special Issue aims to invite high-quality research papers and up-to-date reviews that address new, challenging and interesting localization algorithms, sensor fusion solutions and motion tracking approaches in robotics/mechatronics applications. Topics of interest include, but are not limited to, the following:

- Low-cost embedded system-based solutions;
- Real-time and online sensor fusion algorithms;
- Machine-learning-/deep-learning-aided localization approaches;
- Artificial-intelligence-based sensor fusion solutions;
- Adaptive algorithms in localization;
- New sensor calibration techniques and multi sensor approaches;
- Pattern-recognition-based intelligent sensory solutions;
- Intelligent filtering algorithms and signal processing approaches;
- New dynamical model implementations in filtration;
- Novel sensor combinations and filter structures in localization solutions;
- Human-machine interface-based applications in motion tracking.

---

### Guest Editors

Dr. Akos Odry

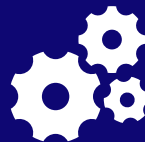
Dr. Peter Sarcevic

Prof. Dr. Jozsef Sarosi

---

### Deadline for manuscript submissions

15 December 2024



## Machines

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.1  
CiteScore 3.0



[mdpi.com/si/161356](https://mdpi.com/si/161356)

*Machines*

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

[mdpi.com/journal/  
machines](https://mdpi.com/journal/machines)





# Machines

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.1  
CiteScore 3.0



[mdpi.com/journal/  
machines](https://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 - Q2  
(Control and Optimization)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.6 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2024).