



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

Guest Editors:

Dr. Akos Odry

Department of Mechatronics and Automation, Faculty of Engineering, University of Szeged, 6275 Szeged, Hungary

Dr. Peter Sarcevic

Department of Mechatronics and Automation, Faculty of Engineering, University of Szeged, 6275 Szeged, Hungary

Prof. Dr. Jozsef Sarosi

Department of Mechatronics and Automation, Faculty of Engineering, University of Szeged, 6275 Szeged, Hungary

Deadline for manuscript submissions:

15 December 2024



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.



an Open Access Journal by MDPI

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

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.

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), Inspec, and other databases.

Journal Rank: JCR - Q2 (Engineering, Mechanical) / CiteScore - Q2 (Control and Optimization)

Contact Us

Machines Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/machines
machines@mdpi.com
[X@Machines_MDPI](https://twitter.com/Machines_MDPI)