Special Issue

Advanced Motion Control of Multiple Robots

Message from the Guest Editors

This Special Issue is dedicated to presenting research works where several robots have a global objective (task) and algorithmic solutions are proposed to control the motion of each robot such that a desired collaborative behavior is generated, mainly using local information that is shared among the robots. We aim to provide a broad sampling of the research that is currently ongoing in the field of the motion control of multiple robots, for wheeled, underwater, aerial and humanoid robots in homogeneous or heterogeneous groups. In this Special Issue, original research articles and reviews are welcome. Research areas in the context of the control of multiple robots may include (but are not limited to) the following:

- Control architectures and scalability.
- Control of robots with motion constraints.
- Advanced control design.
- Optimal and optimization-based control.
- Cooperative motion planning.
- Formation control with collision avoidance.
- Collaborative navigation.
- Synchronization of AGVS.
- Exploration with multiple robots.
- Control of multiple robots for novel applications.

We look forward to receiving your contributions.

Guest Editors

Dr. Hector M. Becerra
Dr. David Gómez-Gutiérrez
Prof. Dr. America Morales

Deadline for manuscript submissions

closed (31 July 2023)

Machines

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.7

mdpi.com/si/126865

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 17.6 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2025).

MDPI