Special Issue

Reinforcement Learning in Dynamic Control and Robotic Autonomy

Message from the Guest Editors

- Robotics autonomy:Motion planning, navigation, and task coordination for UAVs, UGVs, and UUVs; Multi-agent RL for collaborative missions (e.g., swarm robotics);Dynamic system control; Stability-gurantanteed RL for the nonlinear/adaptive control of robotic systems; Real-time RL in safety-critical applications (e.g., agile UAV maneuvers).
- Perception–action integration:RL with sensor fusion (LiDAR, vision, IMU et al.) for robust perception; End-to-end RL for environment-aware control.
- Topics of interest include, but are not limtted to, the following:

RL for robotic motion planning and trajectory optimization; Adaptive RL control under model uncertainties; Distributed RL for multi-robot task allocation; RL-based navigation in dynamic environments; Sensor-fused RL for state estimation; Stability/robustness guarantees in RL-control systems; Transfer learning for cross-domain deployment; Real-time RL on embedded platforms.

Guest Editors

Prof. Dr. Jing Wang

Department of Electrical Engineering, Illinois State University, Normal, IL 61790, USA

Dr. Puze Liu

Department of Informatics, Technical University of Darmstadt, Darmstadt, Germany

Deadline for manuscript submissions

30 September 2026

Machines

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.7

mdpi.com/si/247868

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