Special Issue

Collaborative Robotics and Adaptive Machines

Message from the Guest Editor

The Special Issue will cover topics in the context of recent advances and future trends in collaborative robotics and adaptive machines including, but are not limited to the following:

- Collaboration modeling and collaboration dynamics
- Intelligent control strategies especially adaptive and predictive controls
- Artificial intelligence, machine learning, and vision-based algorithms
- Subtasks allocation and scheduling optimization
- Autonomy, team fluency, mixed initiatives, and mutual trust
- Bio-inspiration in human-robot or robot-robot collaboration
- Transparency, engagement, communication, safety, and efficiency
- Mechanisms and interface design, and passive compliance
- Security in collaborative robotics
- Task and motion planning in constrained spaces
- Collaboration or symbiosis in the forms of cyber-physical system (CPS) and internet of robotic things (IoRT)
- Ambient, embedded and cloud-based intelligence, and adaptive robotic ecology
- Collaborations in/with heterogeneous realities (e.g., real robot–virtual human collaboration)

Guest Editor

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Deadline for manuscript submissions

closed (31 March 2023)

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.

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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).