Special Issue

Advances and Challenges in Wearable Robotics

Message from the Guest Editors

Research on wearable robots is taking place in many application areas, including the assistance of movement, rehabilitation after injury or disease, injury prevention in demanding occupational tasks, and monitoring of movement for the early diagnosis of diseases. There are many promising results in each of these spaces, yet there are still challenges to making these devices ready for effective real-world use. In this Special Issue, we aim to investigate the challenges and state-of-the-art solutions of wearable robotics that can operate successfully in everyday activities. The field of wearable robotics is broad, and we are looking for an opportunity to share the best solutions from across areas of the field, e.g.,

- Type of device–exoskeleton, exosuit, prosthetic;
- Location of assistance–upper limb, lower limb, lower back;
- Actuation design–active, passive, SEA;
- Mechanism of actuation–pneumatic, direct torque, shape-memory alloy;
- Control–phase-based, time-based, passive;
- Sensing–environment, human intent.

Research on simulations, experiments, and engineering applications is welcome.

Guest Editors

Dr. Tommaso Proietti
The BioRobotics Institute, Scuola Superiore Sant'Anna, 33-56127 Pisa, Italy

Dr. Richard Nuckols
Mechanical and Industrial Engineering, The University of Massachusetts Lowell, Lowell, MA 01854, USA

Deadline for manuscript submissions

closed (31 January 2025)

Machines

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.7

mdpi.com/si/138771

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).