# Special Issue

# Compliant Mechanisms and Actuators for Exoskeletons and Human–Robot Interactions

## Message from the Guest Editors

Compliant mechanisms and actuators (CMAs) are compact, self-sensing, energy-efficient, and safe for human–robot interaction (HRI). In recent years, many novel compliant mechanisms and actuators have been developed to meet the demands of high-performance intelligent machines and robots such as exoskeletons, humanoids, industrial robots and grippers, and energy harvesting devices, among others. This Special Issue (SI) aims to show the latest research results in the areas of CMA and HRI. Recent advances in the modeling, design, and control technologies of CMAs and their applications will be collected, indicating the future research trends for intelligent machine design and human–robot interaction. Topics for this SI will include, but are not limited to, the following:

- Compliant joints and mechanisms;
- Variable-stiffness mechanisms;
- Sensing in compliant mechanisms;
- SEAs, PEAs, VSAs;
- Design modeling and simulation;
- Reconfigurable-stiffness mechanisms;
- Dynamics of compliant mechanisms;
- Actuator control;
- Human–robot interaction applications.

## Guest Editors

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## Deadline for manuscript submissions

30 November 2026

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# 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

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