



## **Advances in Robotic Manipulation through Artificial Intelligence and Innovative Gripping Concepts**

Guest Editors:

**Dr. Iñaki Maurtua**

Smart and Autonomous System Unit, Tekniker, Member of Basque Research & Technology Alliance, 20600 Eibar, Spain

**Dr. Ander Ansuategui**

Smart and Autonomous System Unit, Tekniker, Member of Basque Research & Technology Alliance, 20600 Eibar, Spain

Deadline for manuscript submissions:

**closed (30 September 2025)**

### **Message from the Guest Editors**

Dear Colleagues,

Manipulation is a key ability for both industrial and service robots. Traditionally, handling tasks have been defined by robot operators who use their own criteria and knowledge to define the best way to pick up a product, taking into account the characteristics of the part, the environment, the available tool and the subsequent operations to be performed with the part.

This Special Issue aims to collaborate with researchers to present recent advances and technologies in the field of robotic manipulation. The topics of interest include, but are not limited to:

- AI technologies and applications for perception, manipulation and assembly;
- Innovative grasping concepts, including soft grippers;
- Learning from demonstrations;
- Control architectures;
- Flexible task planning and control;
- Human factors in manipulation applications.





an Open Access Journal by MDPI

## 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

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

**Journal Rank:** JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1 (Control and Optimization)

## Contact Us

---

*Machines* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/machines](http://mdpi.com/journal/machines)  
[machines@mdpi.com](mailto:machines@mdpi.com)  
[X@Machines\\_MDPI](https://twitter.com/Machines_MDPI)