

Special Issue

Advances and Challenges in Robotic Manipulation

Message from the Guest Editors

The Special Issue “Advances and Challenges in Robotic Manipulation” aims to summarize the latest developments and emerging trends in this field. It provides an international platform for researchers, academics, and industry professionals to discuss key challenges, share knowledge and open-source tools, and highlight high-impact applications of robotic manipulation. By showcasing recent breakthroughs and future opportunities, this Special Issue seeks to advance the state of the art and inspire further innovation in robotic manipulation. We welcome submissions from all related topics in academic research and industry, including, but not limited to, the following:

- Modelling, design, and control of robotic grippers, hands, and manipulators;
- Planning and perception for robotic grasping and dexterous manipulation;
- Learning-based approaches for robotic manipulation;
- Manipulation in dynamic and unstructured environments;
- Robotic handling of deformable and soft objects;
- Safety, robustness, and human-robot interaction in manipulation;
- Sim-to-real transfer in robotic manipulation;
- Industrial and real-world applications of robotic manipulation.

Guest Editors

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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.

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