Special Issue

Computer Vision in Robotic Manipulation

Message from the Guest Editors

Robotic manipulation has become a cornerstone of intelligent manufacturing, service robotics, and human–robot collaboration. Vision-guided manipulation enables robots to perform tasks that require high precision, adaptability, and autonomy, ranging from industrial assembly and logistics to healthcare and assistive applications.

This Special Issue topics of interest include innovative perception algorithms, vision-based grasping and manipulation strategies, multimodal sensor fusion, learning-based control, and real-time vision systems for dynamic and unstructured scenarios. Research contributions addressing challenges such as robustness, generalization, scalability, and human–robot safety are also highly encouraged. Both original research articles and comprehensive reviews are welcome, covering theory, algorithms, system implementations, and real-world applications.

Through this Special Issue, we seek to highlight cutting-edge progress in computer vision technologies that enhance the intelligence, versatility, and efficiency of robotic manipulation, paving the way for next-generation autonomous robotic systems.

Guest Editors

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Deadline for manuscript submissions

15 April 2026

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/255362

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

Editor-in-Chief

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