

Special Issue

Robotics Vision in Challenging Environment and Applications

Message from the Guest Editors

Recently, mobile robots, unmanned systems, etc., have been widely applied in various environments and applications, imposing great challenges on autonomous functions of these systems. Various sensors, such as the electrical optical camera, RGBD camera, and LiDAR, are applied to robot systems to demonstrate their effectiveness in environment sensing and autonomous task execution. This Special Issue aims to address issues involving sensing, perception techniques that favor unmanned systems, and robots to operate in challenging environments, which include aviation, aerospace, water surface, underwater, jungles, tunnels, etc. We invite scholars in the field of unmanned system perception to present their research results, exchange scientific research experiences, and lead the research of robot perception technology for better development.

Keywords

- image processing
- point cloud processing
- information fusion
- target tracking
- target recognition
- event camera
- SLAM
- reactive control
- perception-aware control

Guest Editors

Prof. Dr. Chunhui Zhao

School of Automation, Northwestern Polytechnical University, Xi'an 710129, China

Dr. Yang Lyu

School of Automation, Northwestern Polytechnical University, Xi'an 710129, China

Deadline for manuscript submissions

closed (15 June 2023)



Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



mdpi.com/si/134403

Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

[mdpi.com/journal/
electronics](https://mdpi.com/journal/electronics)





Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



[mdpi.com/journal/
electronics](https://mdpi.com/journal/electronics)



About the Journal

Message from the Editor-in-Chief

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 guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di
Torino, 10129 Torino, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPlus /
SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank:

JCR - Q2 (Engineering, Electrical and Electronic) /
CiteScore - Q1 (Electrical and Electronic Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).