Special Issue

Computer Vision and Machine Learning for Autonomous Intelligent Systems

Message from the Guest Editor

The aim of this Special Issue is to bring together innovative research at the intersection of visual perception and deep learning to enhance the autonomy of intelligent systems. We are particularly interested in methodologies that bridge the gap between raw sensory data and high-level cognitive reasoning, enabling robust navigation and interaction in the real world. Furthermore, we seek contributions focusing on the translation from metric 3D reconstruction to actionable semantic understanding, required for tasks such as vision–language navigation and complex manipulation. This includes the application of large foundation models to robotics (Embodied AI), advancements in 3D scene understanding, and the integration of vision with other modalities for improved decision-making. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Three-dimensional perception and scene understanding;
- Vision–language navigation (VLN) and semantic navigation;
- Manipulation in unstructured environments;
- Sim-to-real transfer learning for intelligent systems;
- Deep learning for humanoid robot control and locomotion.

Guest Editor

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Deadline for manuscript submissions

15 July 2026

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/265396

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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.

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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).

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