Special Issue

Deep Perception in Autonomous Driving

Message from the Guest Editors

The perception of the physical environment plays an essential role in the field of autonomous driving. Starting with the technical equipment within vehicles, autonomous driving is ushering in fundamental changes. This opens amazing opportunities to achieve innovative autonomous driving functions but also imposes exciting challenges for the perception system and associated multimodal data processing/understanding modules. With this Special Issue, we attempt to showcase the latest advances and trends in deep learning-based techniques to build 'autonomous driving friendly' perception models. The main topics of interest (but are not limited to):

- Visual, LiDAR and radar perception;
- 2D/3D object detection, 2D/3D object tracking;
- Domain adaption for classification, detection, segmentation:
- Scene parsing, semantic segmentation, instance segmentation and panoptic segmentation;
- Human-centric visual understanding, humanhuman/object interaction understanding;
- Human activity understanding, human intention modeling;
- Person re-identification, pose estimation and part parsing;
- Vehicle detection, pedestrian detection and road detection.

Guest Editors

Prof. Dr. Xiankai Lu

School of Software, Shandong University, Jinan 250100, China

Dr. Tianfei Zhou

School of Computer Science and Technology, Beijing Institute of Technology, Beijing 100081, China

Dr. Wenguan Wang

College of Computer Science and Technology, Zhejiang University, Hangzhou 310027, China

Deadline for manuscript submissions

closed (15 December 2024)



Electronics

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



mdpi.com/si/108492

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

mdpi.com/journal/electronics





Electronics

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



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 guestedited 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).

