Special Issue

Recent Applications of Computer Vision for Advanced Driver Assistance System (ADAS)

Message from the Guest Editors

As one of the key technologies used in autonomous vehicles, advanced driver assistance systems (ADASs) are designed to automate, adapt, and enhance vehicle technology for safety and better driving. In recent years, with the rapid development of deep learning technology, the algorithmic performances of vision-based ADASs have been further improved. However, several challenges and difficulties need to be addressed, such as creating real-time and lightweight deep learning networks for computer vision-based ADASs, and hardware platforms for vision algorithms for ADASs. Therefore, this Special Issue is interested in articles, reviews, and reports that present the algorithms, theories and applications of computer vision for ADASs. Potential topics include, but are not limited to, the following:

- Computer vision-based envirroment perception;
- Information fusion for ADASs;
- Object detection for autonomous driving;
- Depth estimation via deep learning;
- Lightweight network design for ADASs;
- Behavior understanding;
- Image processing for autonomous driving;
- Risk assessment of computer vison for ADASs;
- System integration of computer vision-based ADASs.

Guest Editors

Prof. Dr. Meng Ding

College of Civil Aviation, Nanjing University of Aeronautics and Astronautics, Nanjing 211106, China

Prof. Dr. Yunfeng Cao

College of Astronautics, Nanjing University of Aeronautics and Astronautics, Nanjing, China

Deadline for manuscript submissions

closed (30 June 2025)

Applied Sciences

About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:
free for readers, with article processing charges (APC) paid by authors or their institutions.

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

Journal Rank:
JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)