Special Issue

Advances in Autonomous Driving and Smart Transportation

Message from the Guest Editors

Research efforts to achieve autonomous driving capabilities have increased significantly in the last decade. The technology to empower autonomous vehicles with different sensors, including LiDAR, RADAR, ultrasonic devices, and cameras is developing at a rapid pace, and the data collected through these platforms are extremely useful for developing Al/ML models. One of the most significant advantages of autonomous cars is their potential to make roads safer by enabling them to navigate the environment safely and efficiently. This Special Issue invites contributions on the following topics.

Perception and sensing in adverse weather conditions.

Sensor fusion, perception enhancement, classification, and localization techniques.

Deep learning models for object detection. Auto-labeling techniques.

Vehicle connectivity solutions that connect vehicles to other vehicles (V2V), infrastructure (V2I), the electric network (V2N), and even pedestrians (V2P).

Navigation of unmanned ground vehicles (UGVs) in off-road/unstructured environments.

Guest Editors

Dr. Lalitha Dabbiru Center for Advanced Vehicular Systems, Mississippi State University, Starkville, MS, USA

Dr. Christopher T. Goodin

Center for Advanced Vehicular Systems, Mississippi State University, Starkville, MS, USA

Deadline for manuscript submissions

20 January 2026



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/204664

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

mdpi.com/journal/ applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



<u>applsci</u>



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)