



Design and Control of Autonomous Driving Systems

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Message from the Guest Editors

Dear Colleagues,

Autonomous vehicles represent a transformative advancement in automotive engineering, captivating the attention of both academic and industrial communities worldwide. We have seen extensive exploration in scenarios like lane changes, obstacle avoidance, car following, and merging. However, challenges persist in navigating complex conditions encompassing diverse road structures, varying traffic density, adverse weather, and interactions with vulnerable road users like pedestrians and cyclists. In addition, making intelligent decisions while sharing control with human drivers is not yet fully understood. Furthermore, aligning research with practical autonomous vehicle prototypes introduces new concerns such as functional safety, real-time computing, and cost-effective developments.

Hence, this Special Issue is dedicated to exploring advanced technologies for autonomous driving. We invite researchers to share their insights, from theoretical breakthroughs to practical solutions. Topics of interest include, but are not limited to, the following:





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Editor-in-Chief

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Message from the Editor-in-Chief

In response to economic, political, and environmental pressures, the automotive vehicle community is expanding its research, development, and production of more energysaving, environmentally friendly, and safer ground vehicles through vehicle electrification, powertrain hybridization, high-efficiency drivetrain, autonomous or automated driving, vehicle connectivity, and infrastructure.

Vehicles is a new open access and peer-reviewed international journal that will facilitate rapid publication of scholarly articles on studies related to ground vehicles. Its mission is to publish cutting edge articles, conference proceedings, and to organize Special Issues which highlight outstanding research on specific topics regarding all landbased vehicles with regards to the design, modeling and simulation, manufacture, testing, and operation and modification of those vehicles and their engineering systems.

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