

## Special Issue

# Trends and Prospects in Vehicle System Dynamics

### Message from the Guest Editors

The challenges that the automotive sector is facing concerning the implementation of partial and full-automated driving, in conjunction with the impellent need for electrification, require integrated solutions. To this end, vehicle-to-vehicle interaction and new generations of sensors and control strategies, including AI-based algorithms, should be explicitly considered. This Special Issue focuses on emerging technologies and approaches that will support the current trends and prospects in vehicle dynamics. Aspects of interest may include, but are not limited to, the following: novel modeling approaches of vehicular systems and subsystems, with an emphasis on handling and energy-efficiency applications; innovative control/estimation strategies for individual components, vehicles, and fleets; modeling and control of vehicle-to-vehicle interaction, based on future urban and extra-urban mobility scenarios; model-based and model-free path planning, force allocation strategies, and online energy optimization; and the development and integration of novel sensors and devices supporting vehicle dynamics functionalities.

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### Guest Editors

Dr. Luigi Romano

Dr. Basilio Lenzo

Dr. Ricardo De Castro

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### Deadline for manuscript submissions

20 August 2025



## Applied Sciences

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### 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.

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### Editor-in-Chief

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