

Feature Papers to the Inaugural Volume of *Highlights of Vehicles*

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Nowadays, vehicle electrification has garnered significant attention in the automobile industry and research community. Electric vehicles, with their more flexible chassis structure and advanced performance, face significant challenges in terms of stability and safety. As a result, there is a pressing need for more advanced vehicle state estimation, motion control, and diagnosis technologies. Real-time estimation of the vehicle state is foundational to achieve effective vehicle control schemes. The accuracy of state parameter estimation directly influences the control performance and characteristics of the vehicle dynamics control system. Vehicle motion control, such as integrated chassis control, plays a crucial role as a component between planning and action tasks and can greatly improve the yaw and roll stability of the vehicle. Furthermore, diagnosis technologies are a promising tool for diagnosing road safety problems and proposing appropriate countermeasures. With the right tools and technologies, we can create a safer, more efficient, and more sustainable future for automobiles.

The scope of this special issue mainly covers the area of intelligent electric vehicle state estimation and control. We encourage the submissions which tackling the advanced state estimation and vehicle dynamics-based control strategy for electric vehicles. Furthermore, we especially welcome the submissions about the vehicle state estimation, motion control and diagnosis strategy for electric vehicles.

Potential topics include but are not limited to the following:

- vehicle state estimation
- integrated chassis control, such as torque vectoring or active suspension control
- human-machine shared control
- fault diagnosis and fault-tolerant control
- motion control algorithms, including advanced control and decision-making strategies for longitudinal, lateral and vertical vehicle dynamics
- diagnosis and fault estimation of safety-critical vehicular sub-systems

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Special Issue Editors



Dr. Boyuan Li
Zhejiang Lab, China



Dr. Chao Huang
The Hong Kong Polytechnic
University, Hong Kong



Prof. Anh-Tu Nguyen
Université Polytechnique
Hauts-de-France, France



Dr. Yang Xing
Cranfield University, UK



Dr. Basilio Lenzo
University of Padova, Italy



Dr. Peng Hang
Tongji University, China



Dr. Georgios Papaioannou
TU Delft, The Netherlands



Prof. Haiping Du
University of Wollongong, Australia



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