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# **Actuators and Control of Intelligent Electric Vehicles**

Guest Editors:

### Message from the Guest Editors

Dr. Peng Hang As main functional components in IEVs, advanced actuators and control algorithms for steering, driving, and Dr. Bo Leng braking systems are of great importance. Advanced actuators yield different control frameworks and strategies Dr. Wei Wang for IEVs, such as anti-lock brake systems (ABS), Dr. Qianggiang Yao autonomous emergency braking (AEB), electronic stability control (ESC), differential braking, active front steering (AFS), active rear steering (ARS), and active suspension systems (ASS). Thanks to advanced control frameworks Deadline for manuscript and strategies, the performance of IEVs can be submissions: closed (31 May 2024) substantially improved.

> This Special Issue welcomes papers on any aspect of advanced actuators for IEVs and the design of control algorithms. Topics of interest within the scope of this Special Issue include (but are not limited to):

- X-by-wire actuators for IEVs;
- Advanced actuators for steering, braking, and driving;
- The control of active suspension systems;
- Advanced control algorithms for IEVs;
- Collaborative or shared control between human drivers and IEVs;
- Advanced Driving Assistance Systems (ADAS);
- The decision making, motion planning, and control of IEVs.





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# **Editors-in-Chief**

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### Message from the Editorial Board

We are just entering the Next Wave of Technology (NWT) where actuators will play the same role as the computer chip did for computers/social media approximately four decades ago. Just in the U.S., production of \$1 trillion year of electromechanical systems (vehicles, orthotics, manufacturing cells, freight trains, aircraft, etc.) will be impacted by the NWT, all driven by actuators. Five key trends can be found for the future perspectives: "Performance to Reliability", "Hard to Soft", "Macro to Nano", "Homo to Hetero" and "Single to Multi functional". We invite papers that primarily impact these economic sectors; those illustrating basic scientific principles are also welcome.

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