AUTOMOTIVE INNOVATION
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Call for Papers
Special Issue on Intelligent Safety for Connected and Automated Driving

With the spread of intelligent technologies, the connected and automated driving has attracted more and more attentions from academia to industry. Apparently, the biggest roadblock to mass production of connected and automated vehicles (CAVs) is the safety concern, especially after the wide adoption of the artificial intelligence. There are three main safety concerns for CAVs, namely functional safety, safety for the intended functionality (SOTIF) and cyber security. Researchers have been dedicated to the safety in autonomous driving to completely avoid traffic accidents in the future to make the CAVs trustworthy. The functional safety has already been well addressed. However, there are many issues to be resolved to achieve the maximum potential to improve intelligent mobility, especially the SOTIF issue, which is related to the artificial intelligence and human factors, and the cyber security issues. This special issue aims to provide a platform for researchers and engineers from academia, industry and policymakers to present their latest research findings and engineering experiences in developing and applying novel technologies to improve and address the intelligent mobility safety. We are soliciting original high-quality research papers on **specific topics that include, but are not limited to, the following,**

Topics

- Safety of the intended functionality for connected and automated vehicles (CAVs)
- Cyber security for CAVs
- Artificial intelligence for CAVs safety
- Safety under complex urban driving scenarios
- Risk assessment-based vehicle path planning and decision making
- Impacts of human factors on safety of automated driving
- Safety for connected and automated commercial vehicles
- Simulation approaches for CAVs safety
- Testing, evaluation, validation and verification for intelligent mobility
- Standard, policy and protocol for CAVs safety

Submission Guidelines

1. Please submit online via www.springer.com/42154, be sure to select Topical Collection: Intelligent Safety for Connected and Automated Driving.
2. Please read the instructions for authors online and typeset accordingly.
3. All manuscripts will be peer reviewed and evaluated based on quality, originality, novelty, and relevance to the topics.
4. If any problems, please feel free to contact the journal editorial office via email: jai-editor@sae-china.org .

Important Dates

2020.11.01: Deadline for Initial Paper Submission
2020.12.15: Notification of First Round Decision
2021.01.15: Deadline for Revised Paper Submission
2021.02.28: Final Acceptance Decision

Advantages of Submission

- An international journal distributed worldwide
- Opportunity to demonstrate and exchange innovative technologies
- Opportunity to present the paper in important conferences of China SAE, e.g. ISC, CICV and SAECCE
- Publishing articles free of charge

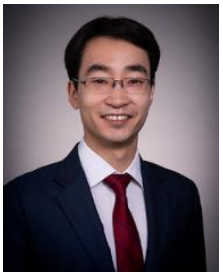
Guest Editors

Jun Li received the Ph.D. degree in vehicle engineering from Jilin University, Changchun, Jilin, China, in 1989. He is currently an academician of the Chinese Academy of Engineering, a Professor at school of Vehicle and Mobility with Tsinghua University, president of the Society of Automotive Engineers of China, director of the expert committee of China Industry Innovation Alliance for the Intelligent and Connected Vehicles. His research interests include internal combustion engine, electric drive systems, electric vehicles, intelligent vehicles and connected vehicles.

Hong Cheng is currently a full professor at University of Electronic Science and Technology of China. He is an IEEE senior member, and a Leading Talent in Science and Technology Innovation of National Ten Thousand Plan. He received the Ph.D degree from Xi'an JiaoTong University in 2003, and held a postdoctoral position at Carnegie Mellon University in the United States from 2006 to 2009. His research fields include computer vision, machine learning, robotics and intelligent vehicles. He has published 110 papers in top international conferences and journals such as IEEE TCSVT / TITS / PR /AAAI / IJCAI / IROS / ICRA / ICCV / CVPR. He is the author of "Autonomous Intelligent Vehicles: Theory, Algorithms, and Implementation". He was awarded the "First Prize of Wu Wenjun Artificial Intelligence Technology Progress" by the Chinese Artificial Intelligence Society in 2017.

Shaobo Qiu is currently a Research Professor at Machine Intelligence Institute, University of Electronic Science and Technology of China. He was the director of Intelligent Driving and Passive Safety Technology of FAW R&D Center, as well as the chief technology representative in Germany (1994) in FAW. He also used to be the representative of FAW R&D Center and Qiming Information Technology Company in Silicon Valley, USA (2016). He has been the deputy chairman of the Safety Technology Committee of China SAE, the chairman of the China Expert Group of the WP-29/GRSP in United Nations ECE, the member of the GESP expert group in the OICA and member of AQSIQ Product Defect Identification Expert Group. He serves as the editorial board member for the *Journal of Automotive Safety and Energy*. His research focuses on automobile body test, CAE analysis, passive safety design and intelligent driving system design. He published one book, titled *Automobile Crash Safety Engineering* (2016).

Chen Lv is an Assistant Professor at School of Mechanical and Aerospace Engineering, and a Cluster Director in Future Mobility Solutions of ERIAN, Nanyang Technological University, Singapore. He received the PhD degree from the Dept of Automotive Engineering, Tsinghua University, China in 2016. He was a joint PhD researcher at EECS Dept., University of California, Berkeley, during 2014-2015, and a Research Fellow at Cranfield University, UK, during 2016-2018. His research focuses on automated vehicles and human-machine systems, where he has contributed over 90 papers and 12 granted patents. He serves as an Editorial Board Member for Automotive Innovation, Vehicles, IJVAS, Automation FMECH, and IJVSMT, and a Guest Editor for IEEE TMECH, IEEE TII, IEEE ITS Magazine, etc.



Ding Zhao is an Assistant Professor with the Department of Mechanical Engineering, Carnegie Mellon University. He received the Ph.D. degree from the University of Michigan, Ann Arbor in 2016. His research aims to safely deploy the AI-enabled robots to the real world by developing reliable, verifiable, explainable, and trustworthy design and test approaches in the face of the uncertain, dynamic, time-varying, multi-agent, and human-involved environment. His work is at the intersection of statistical machine learning, robotics, and optimal design, with applications on autonomous vehicles, smart manufacturing, intelligent transportation, assistant robots, and cybersecurity.

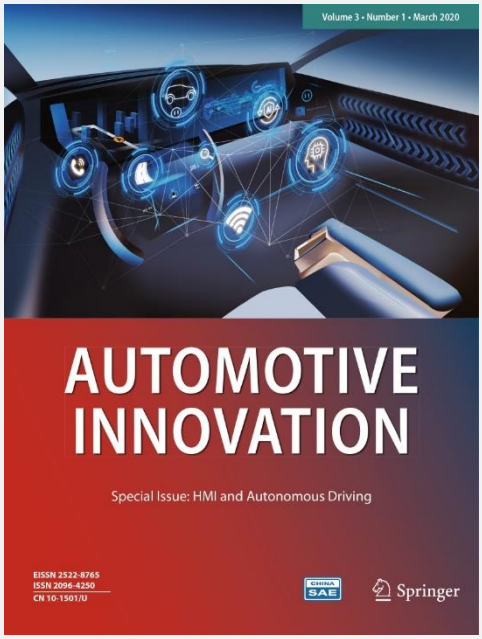
Hong Wang is currently a Research Associate Professor at Tsinghua University. From the year 2015 to 2019, she was working as a Research Associate of Mechanical and Mechatronics Engineering with the University of Waterloo. She received her Ph.D. degree in Beijing Institute of Technology in China in the year 2015. Her research focuses on the risk assessment and crash mitigation-based decision making during critical driving scenarios, ethical decision making for autonomous vehicles, component sizing, modelling of hybrid powertrains and intelligent control strategies design for hybrid electric vehicles; intelligent control theory and application. She becomes the IEEE member since the year 2017. She has published over 50papers on top international journals, such as IEEE Transaction on Intelligent System, IEEE Transaction on Vehicular Technology, etc.

Ehsan Hashemi is currently a Research Assistant Professor at University of Waterloo's Department of Mechanical and Mechatronics Engineering. Dr. Hashemi received his PhD in Mechanical and Mechatronics Engineering in 2017 from University of Waterloo, ON, Canada; M.Sc. in Mechanical Engineering in 2005 from Amirkabir University of Technology (Tehran Polytechnic). His research interests include distributed and fault-tolerant estimation, control theory, active vehicle safety systems, and intelligent transportation. His research has resulted in several journal/conference publications (IEEE transactions and control engineering practice), patents, and technology transfers on vehicle state estimation, controls, and fault diagnosis.

About *Automotive Innovation*

Sponsored by China SAE and published globally via Springer Nature, ***Automotive Innovation*** aims to be a world-class journal that provides abundant sources of innovative findings for automotive engineers and scientists. The journal is published quarterly, ensuring high-quality papers satisfying international standards. With the editorial board consisting of world-renowned experts, it has attracted readers from 72 countries and regions. The highest download of a single article wins more than 8,000.

The journal is dedicated to the publication of peer-reviewed original papers and covers the principles, methodologies, designs, theoretical background and cutting-edge technologies in connection with the development of vehicle and mobility. The main topics include but are not limited to: energy-saving, electrification, intelligent and connected, safety and lightweight technologies.



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