
Editorial

Hui Zhang

Merchant Marine College,
Shanghai Maritime University,
Shanghai 201306, China
Email: huizhang285@gmail.com

Changle Xiang

School of Mechanical Engineering,
Beijing Institute of Technology,
Beijing 100081, China
Email: xiangcl@bit.edu.cn

Jianqiu Li

State Key Laboratory of Automotive Safety and Energy,
Department of Automotive Engineering,
Tsinghua University, Beijing 100084, China
Email: lijianqiu@tsinghua.edu.cn

Nan Chen

School of Mechanical Engineering,
Southeast University,
Nanjing 211189, China
Email: nchen@seu.edu.cn

Biographical notes: Hui Zhang received his BSc in Mechanical Design Manufacturing and Automation from the Harbin Institute of Technology at Weihai, Weihai, China in 2006, MSc in Automotive Engineering from Jilin University, Changchun, China in 2008, and PhD in Mechanical Engineering from University of Victoria, Victoria, BC, Canada, in 2012. He has worked as a Post-doctoral researcher (2012–2013) and Research Associate (2014–2015) at the Department of Mechanical and Aerospace Engineering of The Ohio State University, Columbus, Ohio, USA. He is now a Professor at Shanghai Maritime University.

Changle Xiang is a Professor in the Department of Mechanical Engineering at Beijing Institute of Technology. His research interests mainly focus on hydraulic transmission, hybrid electric vehicle and vehicle dynamics and control. He has also been involved in several research projects dealing with topics such as intelligent vehicle, hybrid powertrain design and triphibian vehicles.

Jianqiu Li received double BS degrees in Internal Combustion Engine (ICE) and Automatic Control Engineering and PhD in Power Machine and

Engineering from Tsinghua University, Beijing, China, in 1995 and 2000, respectively. In 2004, he was a Visiting Scholar with RWTH Aachen, Aachen, Germany. He is currently a Professor with the Department of Automotive Engineering, Tsinghua University, and the Team Leader of the Fuel Cell City Bus Program supported by the Ministry of Science and Technology and the Beijing government. His main research interests include the electronic and control systems of automotive powertrain.

Nan Chen received his PhD in Solid Mechanics from Xi'an Jiaotong University, Xi'an, China, in 1988. From 1992 to 1995, he was a Postdoctoral Research Assistant with Eidgenössische Technische Hochschule Zürich, Zurich, Switzerland. He is currently the Director of the Institute of Structures Dynamics Analysis, Optimisation, and Control, and the Dean of the Department of Vehicle Engineering, Southeast University, Nanjing, China. His research interests are vibration and noise control, intelligent transportation system vehicles, vehicle dynamics and control, and advanced CAD/CAE/CAM and PDM technology.

China has become the largest vehicle market in the world and the Chinese market is still booming. Accompanying the quick development, environmental pollution and energy supply are two big issues and bottlenecks for the future sustainable development. The good news is that not only the Chinese government but also the companies are promoting the new energy vehicles, such as the hybrid electric vehicles (HEVs) and electric vehicles (EVs) in the huge market. It is undoubted that the new energy vehicles will play an important role in the near future.

This special issue invites original papers that address state-of-the-art technologies and policies of the research and development on HEVs and EVs in China. Of particular interest are papers that are devoted to the most innovative technologies and useful policies in HEVs or EVs. Topics include, but are not limited to:

- development plan and strategies of new energy vehicles
- system architecture of HEVs and EVs
- novel control strategies for HEVs or EVs
- hybrid powertrains research
- energy optimisation and management in HEVs or EVs
- battery technology and battery energy management.

During the period of calling for papers, we solicited a lot of submissions to our special issue from different institutes in China. Based on the peer-review results, four submissions have been selected to appear in the final publication. In the paper entitled 'Development of a driving cycle for city bus in Harbin of China' by X. Wu et al., the authors designed a driving cycle for the city of Harbin, which is in the north of China. The development of the cycle is based on the collected data with GPS in several typical bus routines. J. Guo, in the paper 'Development of regenerative braking for electric vehicles in China: a review', did a comprehensive literature review on the regenerative braking for electric vehicles: 42 references are included. In the paper entitled 'Modelling and control of a two-mode power-split hybrid powertrain' by W. He et al., the component

models of a two-mode power-split hybrid powertrain were developed. Based on the models, the control strategies were proposed. P. Luo et al. studied the shifting control problem in the paper 'Sliding mode control of shifting process based on throttle opening and vehicle mass variations'. The sliding model controller was designed and experimental results are provided.