

Call for Papers

Automotive Innovation Special Issue on Environmentally Benign Automotive Lightweighting

Automotive lightweighting is one of the key technologies in realizing the goal of “Net-Zero Carbon” and plays a significant role in the deep integration of new energy vehicles and intelligent and connected vehicles. An increasing number of cutting-edge and innovative environmentally-friendly materials, including advanced high strength steels (AHSS), Al and Mg alloys, fiber composites and bio-based materials, have been applied to multi-material lightweight vehicles, and novel structural design concepts and manufacturing processes have been developed.

Professor A. Erman Tekkaya and Professor Junying Min organized a very successful Special Issue on Automotive Lightweight in 2020 (<https://link.springer.com/journal/42154/volumes-and-issues/3-3>) with dedicated support of the Honorary and Founding Executive Editor-in-Chief Professor Fangwu (Mike) Ma. In order to pay tribute to his contributions to eco-driving, we take the initiative to organize a new Special Issue on Environmentally Benign Automotive Lightweighting. This special issue aims to gather original research contributions in the field of automotive lightweighting, which highlights the latest advances in lightweight materials, design of lightweight structures and their manufacturing processes.

Topics

- Energy and resource efficiency, CO₂-footprint and recyclability of multi-material systems
- Mechanical behaviours and microstructural evolution of automotive lightweight materials
- Novel design and optimization algorithms of automotive lightweight structures
- Forming and joining processes of single- and multi-material lightweight automobiles

Guest Editors-in-Chief:

- **Prof. Junying Min**, School of Mechanical Engineering, Tongji University
- **Prof. A. Erman Tekkaya**, Institute of Forming Technology and Lightweight Components, TU Dortmund University
- **Prof. Yongbing Li**, School of Mechanical Engineering, Shanghai Jiao Tong University
- **Prof. Yannis P. Korkolis**, Department of Integrated Systems Engineering, The Ohio State University
- **Ass. Prof. Ying Zhao**, College of Engineering and Technology, Southwest University

Important Dates:

Submission Deadline: December 15, 2022

Special Issue Online: July, 2023

Submission Guidelines:

The paper submission & review process will be handled through Automotive Innovation.

- (1) Please submit online via www.springer.com/42154, and be sure to select **Topical Collection: Environmentally Benign Automotive Lightweighting**.
- (2) All manuscripts will be double-blind peer reviewed.
- (3) If any problems, please feel free to contact the journal editorial office via email: jai-editor@sae-china.org.

About Automotive Innovation

Automotive Innovation is the leading peer-reviewed international journal and China SAE's flagship publication. The journal presents innovative findings and influential developments that meets the changing needs of the automotive industry. It provides a high-level platform for automotive scientists and engineers worldwide.

The journal emphasizes the research of principles, methodologies, designs, theoretical background, and cutting-edge technologies in connection with the development of vehicle and mobility. The main topics cover emerging vehicle technologies, including but are not limited to: electrification, autonomous driving, and eco-driving.

International Platform

- Indexed in Web of Science (IF₂₀₂₁=2.0), Scopus (CiteScore=3.2), and Ei Compendex
- Published globally via Springer Nature
- Papers promoted on all CSAE platforms

Welcome your submissions !

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