

Special Issue

Advanced Electric Powertrain Technologies for Electric Vehicles

Message from the Guest Editors

Due to increasing concerns regarding energy saving and environmental protection, electric vehicles have garnered significant attention in recent years. Electric powertrains, as the key systems utilized in electric vehicles, offer novel advantages, including a more compact size, lower cost, higher power density, enhanced efficiency, reduced noise and vibration, and improved reliability. This Special Issue is devoted to the latest developments in advanced electric powertrain technologies with applications in electric vehicles. It welcomes the submission of papers from both academia and industry that present the technical progress observed in advanced motor topologies, magnetic gears, integrated electric drive systems, multi-physics optimization, thermal management techniques and system-level design. Topics of interest include, but are not limited to, the following:

- New machine topologies
- Magnetic gears
- Integrated electric drive systems
- Advanced motor control strategies
- Multi-physics design optimization
- Noise and vibration analysis and reduction
- Advanced thermal management techniques
- System-level design optimization of the electric powertrain

Guest Editors

Prof. Dr. Qingsong Wang

The Power Electronics and Industrial Control Research Group (GRÉPCI), École de Technologie Supérieure (ÉTS), Montréal, QC H3C 1K3, Canada

Prof. Dr. Junnian Wang

College of Automotive Engineering, Jilin University, Changchun 130015, China

Deadline for manuscript submissions

closed (20 March 2025)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/193899

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)





Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



[mdpi.com/journal/
energies](http://mdpi.com/journal/energies)

About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)

