

## Special Issue

# Data-Enabled Control and Design Solutions for Electric Machines and Power Electronics in Transportation Electrification

### Message from the Guest Editors

This Special Issue aims to explore the latest advancements in data-enabled control and design solutions for electric machines and power electronics in transportation electrification. Topics of interest include, but are not limited to:

- Advanced control techniques for electric machines and power electronics, including model predictive control, adaptive control, etc.
- Data-driven design optimization of electric machines and power electronics components for enhanced performance, efficiency, and reliability.
- Integration of artificial intelligence and machine learning algorithms for fault diagnosis, prognostics, and health management of electric machines and power electronics in transportation electrification.
- Design and control of electric machines for special applications in electrical transportation, such as electric buses, e-bikes, railways, and electric aircraft.
- Cybersecurity and communication challenges in data-enabled control and design solutions for electric transportation systems.
- Big data analytics for performance evaluation and energy management in electric transportation systems.

---

### Guest Editors

Prof. Dr. Senyi Liu

Dr. Zaixin Song

Dr. Xiao Yang

Prof. Dr. Chunhua Liu

---

### Deadline for manuscript submissions

closed (25 March 2025)



## Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.9  
CiteScore 8.3



[mdpi.com/si/168062](https://mdpi.com/si/168062)

*Energies*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[energies@mdpi.com](mailto:energies@mdpi.com)

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





# Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.9  
CiteScore 8.3



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