

## Special Issue

# Recent Advances in Electric Motor Drives for Electrified Mobility

### Message from the Guest Editors

Motor drives play an important role in electrified mobility, where the performance of an electrified transportation system is determined by the characteristics of its power electronic motor drive. The transition to electromobility technologies requires the development of electric motor drive systems with improved performances and capabilities. This translates to a demand for higher power density and more efficient and reliable electric motor drives. Recently, several technologies have emerged to enhance the performance of electric motor drives, including new semiconductor power devices, inverter topologies, control techniques, and thermal management technologies.

- Modulation and control techniques of motor drives;
- Enhancement of power density, efficiency, and reliability of motor drives;
- Motor drive systems using wideband gap devices;
- Performance evaluation of different motor drive topologies;
- Power electronics for transportation electrification;
- Battery charging and management technologies;
- Component cooling.

---

### Guest Editors

Dr. Mohamed Diab

Dr. Xing Zhao

Prof. Dr. Ayman Abdel-Khalik

---

### Deadline for manuscript submissions

closed (31 May 2024)



## World Electric Vehicle Journal

---

an Open Access Journal  
Published by MDPI

---

Impact Factor 2.6  
CiteScore 4.5



[mdpi.com/si/122750](https://mdpi.com/si/122750)

*World Electric Vehicle Journal*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[wevj@mdpi.com](mailto:wevj@mdpi.com)

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

[wevj](https://wevj.mdpi.com)





# World Electric Vehicle Journal

---

an Open Access Journal  
Published by MDPI

---

Impact Factor 2.6  
CiteScore 4.5



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



## About the Journal

### Message from the Editor-in-Chief

The *World Electric Vehicle Journal* is the official journal of the World Electric Vehicle Association (WEVA) and its members the European Association for Electromobility (AVERE), the Electric Drive Transportation Association (EDTA), and the Electric Vehicle Association of Asia Pacific (EVAAP). Since its foundation in 2007, the journal has aimed to provide a publishing platform for the academic and industrial world to share the latest developments and knowledge about electric vehicles. If you are developing Electric, Plug-in Hybrid, Hybrid Electric, or Fuel Cell Vehicles, we cordially invite you to consider us as the place for you to publish your latest results and innovations.

---

### Editor-in-Chief

Prof. Dr. Joeri Van Mierlo

MOBI–Electromobility Research Centre, Department of Electrical Engineering and Energy Technology, Faculty of Engineering Sciences, Vrije Universiteit Brussel, 1050 Brussel, Belgium

---

### Author Benefits

#### High Visibility:

indexed within Scopus, ESCI (Web of Science), Ei Compendex, and other databases.

#### Journal Rank:

JCR - Q2 (Transportation Science and Technology) /  
CiteScore - Q2 (Automotive Engineering)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.7 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the first half of 2024).