

Special Issue

Electric Vehicles and Smart Grid Interaction

Message from the Guest Editor

The interaction between EVs and smart grids is a key area for achieving smart, efficient and sustainable energy systems. The interaction between EVs and grids refers to a deep integration and interaction to achieve the optimal allocation and shared use of energy resources. First, it can improve the convenience and flexibility of charging electric vehicles. By building an intelligent charging infrastructure and promoting vehicle-to-grid technology, electric vehicles can be remotely monitored, intelligently dispatched and flexibly charged, improving user convenience and charging efficiency. Second, the interaction between electric vehicles and the grid helps optimize grid load management. Through the application of intelligent charging systems, the charging load of electric vehicles can be monitored and adjusted in real time to avoid excessive pressure on the power grid. At the same time, charging strategies can be optimized according to the grid demand and user demand to realize the balance and optimal scheduling of the power system load. The interaction between electric vehicles and the grid cannot be achieved without the support of related technologies and applications.

Guest Editor

Prof. Dr. Zhaoyun Zhang
School of Electronic Engineering and Intelligitization, Dongguan
University of Technology, Dongguan, China

Deadline for manuscript submissions

closed (30 June 2025)



World Electric Vehicle Journal

an Open Access Journal
Published by MDPI

Impact Factor 2.6
CiteScore 5.0



mdpi.com/si/176614

World Electric Vehicle Journal
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
wevj@mdpi.com

mdpi.com/journal/

wevj





World Electric Vehicle Journal

an Open Access Journal
Published by MDPI

Impact Factor 2.6
CiteScore 5.0



[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 (Engineering, Electrical and Electronic) /
CiteScore - Q2 (Automotive Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 21 days after submission; acceptance to publication is undertaken in 3.8 days (median values for papers published in this journal in the second half of 2025).