



## Electric Vehicles and Charging Facilities for a Sustainable Transport Sector

Guest Editor:

**Dr. Aritra Ghosh**

Department of Renewable  
Energy, Environment and  
Sustainability Institute (ESI),  
University of Exeter, Penryn,  
Cornwall TR10 9FE, UK

Deadline for manuscript  
submissions:

**31 October 2024**

### Message from the Guest Editor

Dear Colleagues,

Electric vehicles (EVs) are indispensable to abate carbon footprints and improve the benign environment across the globe. From 2010, the deployment of EVs on road has been increased exponentially which in turn increased the grid electricity demand. This additional load created power quality and reliability issues in the distribution grid. On the other hand, range anxiety issues are still prominent which is a major bottleneck for EV uptake. Considering the global climate issue, electricity from renewable sources is now getting more priority which can have serious implication on EV adoption if not sufficient charging facilities are implemented. Charging facilities near the workplace, home and highway will definitely increase the EV buyer's confidence. Thus, the inclusion of millions of EVs in the transport sector needs renewable energy penetration into a grid, improvement of grid infrastructure, up-gradation of batteries and battery management system and smart charging facility, a contribution from an energy storage system.





an Open Access Journal by MDPI

## 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

## Message from the Editor-in-Chief

The *World Electric Vehicle Journal* is the official journal of 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 aims 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.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [ESCI \(Web of Science\)](#), [Ei Compendex](#), and [other databases](#).

**Journal Rank:** CiteScore - Q2 (*Automotive Engineering*)

## Contact Us

---

*World Electric Vehicle Journal*  
Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/wevj](http://mdpi.com/journal/wevj)  
[wevj@mdpi.com](mailto:wevj@mdpi.com)