

## Special Issue

# Intelligent Vehicle Control Systems

### Message from the Guest Editor

Millions of people suffer injuries in car crashes every year, about 94% of which are caused by careless driving. To solve this problem, adaptive cruise control (ACC) is available to advance driver-assistance systems (DASs) to enhance driving safety and riding comfort through adjusting driving velocity to maintain a safe distance from vehicles ahead. Considering the safety and real-time application of ACC, bionic optimizations are proposed to resolve challenges to enhancing safety and driving comfort. Firstly, according to the dynamics model, the fitness function is defined concerning driving safety, including the distance between intelligent vehicles and obstacles, and distance between intelligent vehicles and targets, and riding comfort. Secondly, the optimal driving parameters that minimize the fitness function can be found using bionic optimization algorithms. Finally, simulation results show that the optimization method and its fitness function can further enhance ACC performance and reliability in real time. This Special Issue is devoted to the latest developments in bionic optimizations and controls for intelligent vehicles.

---

### Guest Editor

Prof. Dr. Chung-Neng Huang

Department of Electrical Engineering, National University of Tainan,  
Tainan 700, Taiwan

---

### Deadline for manuscript submissions

closed (30 November 2022)



## World Electric Vehicle Journal

---

an Open Access Journal  
Published by MDPI

---

Impact Factor 2.6  
CiteScore 5.0



[mdpi.com/si/104952](https://mdpi.com/si/104952)

*World Electric Vehicle Journal*  
Editorial Office  
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 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 16.2 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2024).