



an Open Access Journal by MDPI

Electric Vehicle Smart Charging and V2G

Guest Editors:

Dr. Zhaocai Liu

National Renewable Energy
Laboratory, 15013 Denver West
Parkway, Golden, CO 80401, USA

Dr. Yi He

Department of Civil and
Environmental Engineering, Utah
State University, Logan, UT
84322-4110, USA

Deadline for manuscript
submissions:

closed (1 March 2022)

Message from the Guest Editors

Dear Colleagues,

With potential benefits such as the improvement of energy efficiency, reduction in emission and oil dependence, as well as the support of the green and sustainable development of transportation systems, electric vehicles have gained unprecedented interest from governments, industries, and academia in recent years. A widespread increase in electric vehicle charging potentially brings significant challenges to the power grid. The uncoordinated charging of electric vehicles might adversely impact the power system by increasing the peak load demand and reducing reserve margins, which can cause voltage instability and reliability issues. On the other hand, with vehicle to grid (V2G) technologies, electric vehicles might benefit power grids by supporting peak load leveling and encouraging the more efficient use of electricity generated from renewable energy sources. This Special Issue is seeking contributions regarding the development and application of grid-integrated smart charging and/or V2G strategies that can optimize the benefits and reduce the risks associated with a widespread increase in electric vehicle charging.

Dr. Zhaocai Liu

Dr. Yi He

Guest Editors



mdpi.com/si/95927

Special Issue



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

mdpi.com/journal/wevj
wevj@mdpi.com