Special Issue

Emerging Topologies and Control of Electric-Drive-Reconstructed Onboard Charger for Electric Vehicles

Message from the Guest Editors

Electric vehicles (EVs) are becoming more and more attractive and competitive for road transportation, in response to global warming and increasingly serious environmental pollution. All related technologies of EVs, such as motor driving and battery charging, have attracted extensive attention in both industrial and academic fields. It is well-acknowledged that the main barriers for further development and popularity of EVs are two-fold: limited battery capacity and long charging duration.A novel idea for designing the electric system of EVs has come up due to the concept of electric-drive-reconstructed onboard charger (EDROC). Under the concept, the high-power drivetrain of an EV can perform functions of both driving and charging, and the charging power is only limited by the drivetrain rating. In this way, the needs of additional onboard module for slow charging and expensive off-board infrastructure for fast charging are eliminated, almost without impacts on the cost, the weight and the volume of EV.

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Deadline for manuscript submissions

closed (30 April 2025)

World Electric Vehicle Journal

an Open Access Journal
Published by MDPI

Impact Factor 2.6
CiteScore 5.0

mdpi.com/si/189780

World Electric Vehicle Journal
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mdpi.com/journal/wevj

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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.

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