Special Issue

Power Converters and Electric Motor Drives

Message from the Guest Editor

With the increasing demand for environmentally friendlier and higher fuel economy vehicles, automotive companies are on the track to replace conventional internal combustion engine (ICE) vehicles with all electric vehicles (AEVs), hybrid electric vehicles (HEVs), and plug-in hybrid electric vehicles (PHEVs). These vehicles would also have more stringent requirements around vehicle performance, fuel economy, emissions, passenger comfort, and safety. The main challenges are to achieve high efficiency, ruggedness, small sizes, and low costs in power converters and electric machines, as well as in associated electronics. In addition, the technology of electric motor drives and power converter modulations and controls also play crucial roles in vehicles' dynamics and operating characteristics. The power electronics system should be efficient to improve the range in EVs and fuel economy in HEVs. The selection of power semiconductor devices, types of converters/inverters, control and switching schemes, the packing of the individual units, and system integration are vital to the development of efficient and high-performance vehicles.

Guest Editor

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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.

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