IEEE Journal of Emerging and Selected Topics in Industrial Electronics

Special Section on:

Advanced Power Conversion and Control Technologies for Electric Vehicles

THE transportation system is an important industry that plays a vital role in economic growth and social prosperity. However, it faces increasing challenges for improving resources utilization efficiency and reducing environmental pollution. The electric vehicle (EV), including plug-in electric vehicles (PEVs) and hybrid electric vehicles (HEVs), exhibits great potentials for realizing a green energy environment. The EVs not only have abilities for decreasing greenhouse gas emissions but also embrace many emerging features, such as the smart charging infrastructure, vehicle-to-grid (V2G), unmanned driving, and vehicle-based energy management etc. Accordingly, advanced power conversion and control is an enabling technology that would facilitate further developments in high-efficient electric drive trains, , energy management and interactivity with power grid of EVs. This Special Section is focused on the recent advancements in the energy management for EVs, including the theoretical analysis, optimized design, propulsion drive, power conversion, control strategies, wireless charging, energy management, and V2G technologies etc.

Editors invite original manuscripts presenting recent advances in these fields with special reference to the following topics.

- ✔ Modern motion control;
- ✔ Advanced Power converters;
- ✔ Battery management system;
- ✔ On-board charging;
- ✔ Vehicle-to-grid (V2G) technologies;
- ✔ Static/dynamic wireless charging;
- ✔ Unmanned driving;
- ✔ Motor design and drive;
- ✔ Energy management and control;
- ✔ Emerging and innovative technologies for EVs/HEVs.

Manuscript Preparation and Submission

Check carefully the style of the journal described in the guidelines “Information for Authors” in the IEEE- IES website: http://www.ieee-ies.org/pubs/jestie.

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On the submitting page, in pop-up menu of manuscript type, select: “**SS on Advanced Power Conversion and Control Technologies for Electric Vehicles**”, then upload all your manuscript files following the instructions given on the screen.

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