

Special Section on:

# Dynamic Charging of Electric Vehicles by Wireless Power Transfer

**I**N RECENT TIMES, wireless power charging of electric vehicles (EV) has gained huge attentions. Static wireless charging for EVs has seamlessly been achieved using the inductive power transfer (IPT) technology. More recently, dynamic (also termed in-motion) wireless charging with IPT technology has been successfully demonstrated for electric mass transportation means like electric trains, trams, buses, and utility vehicles.

This special section looks forward to high-quality manuscripts highlighting the state-of-the-art on dynamic wireless charging of EVs. Papers are welcomed on analysis, design, prototype development, and testing of wireless systems for dynamic EV charging. Advanced researches on system-relevant issues such as coupling coil, coil misalignment compensation, power electronics converters, and LC-compensation circuitry for dynamic wireless charging systems are also welcome. Papers presenting quality work on wireless both IPT and non-IPT technology for dynamic wireless EV charging will be considered. Topics of interest of this Special Section include, but are not limited to:

- ✓ IPT systems for dynamic EV charging
- ✓ Design aspects for dynamic IPT charging coupling coil design
- ✓ Strategies for dynamic IPT charging coil misalignment compensation
- ✓ Power electronics converter topologies and LC-compensation circuitry for dynamic wireless charging systems
- ✓ Mass transit electrification (electric trains, trams, and buses) using dynamic wireless charging
- ✓ Intelligent control and energy management for dynamic wireless EV charging
- ✓ Foreign-object detection for dynamic wireless EV charging
- ✓ Interoperability and standardization of dynamic wireless EV charging systems
- ✓ EMC issues and solutions for dynamic wireless EV charging systems
- ✓ Capacitive- and electromagnetic-coupling power transfer systems for dynamic EV charging
- ✓ Static wireless EV charging under dynamic change conditions (electric ships, underwater applications, tethered UAVs, etc.)
- ✓ Non-IPT based systems for dynamic wireless EV charging.

## Manuscript Preparation and Submission

Check carefully the style of the journal described in the guidelines “Information for Authors” in the IEEE- IES web site: <http://www.ieee-ies.org/index.php/pubs/ieee-transactions-on-industrial-electronics> .

Please submit your manuscript in electronic form through: <https://mc.manuscriptcentral.com/tie-ieee/>.

On the submitting page, in pop-up menu of manuscript type, select: “**SS on Dynamic Charging of Electric Vehicles by Wireless Power Transfer**”, then upload all your manuscript files following the instructions given on the screen.

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### Timetable

Deadline for manuscript submissions:	Information about manuscript acceptance:	Publication date:
Sept. 30, 2015	Spring 2016	Summer 2016