

Special Section on:

# Resilient and Compact Powertrains for On-the-Move Electrical Energy Technologies

**O**n-the-Move Electrical Energy Technologies typically operate off the grid with no or minimal interaction with the utility network. The systems should therefore be light and compact to minimize power consumption and increase the operational time. They often have resilient structures because of rapidly changing environmental conditions, and the fact total failure in some systems might be catastrophic. Driven by the demand to reduce the cost and enhance the performance of on-the-move electrical energy technologies for transportation electrification, such as more electric aircraft, electric vehicles, drones, and robots, the industry is moving towards applications with more power electronics. High power density and resilient converters are critical enablers for the transportation industry to unlock significant improvements in system weight, energy consumption, total life-cycle costs, maintainability, and overall system reliability.

We encourage all researchers working in this area to submit papers to this Special Section. Topics of interest include, but are not limited to:

- ✓ Compact power converters for on-board charging and vehicle traction applications
- ✓ Hybrid energy schemes for increasing operational-time and reduction in energy storage
- ✓ Fault tolerant converters for less redundancy and compact systems
- ✓ Power converters for variable-frequency powertrain systems
- ✓ Multi-input converters with minimum parts for increasing power density and reliability

## 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/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 Resilient and Compact Powertrains for On-the-Move Electrical Energy Technologies**”, then upload all your manuscript files following the instructions given on the screen.

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### Timetable

Deadline for manuscript submissions:

~~Aug. 31, 2019~~ Oct. 31, 2019

Information about manuscript acceptance:

Spring, 2020

Publication Date:

Summer, 2020