

CALL FOR PAPERS



Special Session on Energy Storage Management Systems for Transportation Electrification

IECON 2018 - The 44th Annual Conference of the IEEE Industrial Electronics Society
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TOPIC OF THE SPECIAL SESSION

Electrification of various forms of transport, ranging in power level from bikes to buses, is a world-wide trend. As an enabling technology in this context, various types of energy storage systems—using fuel cells, batteries, ultracapacitors—play a central role. Storage systems typically comprise banks of series/parallel combinations of several storage elements. Within a storage system, there can be significant variation in behavior and performance, from one storage element to another, owing to differences in production processes, temperature, and other factors. This necessitates that the energy flow between the various components in the system must be carefully managed with strategies seeking energy efficient, reliable, and fault tolerant operation. This special session invites original research on power electronic converters, control algorithms and strategies for energy storage management systems that provide better efficiency and performance. Topics of interest include, but are not limited to:

Topics of the Session

- Control strategies for energy storage systems
- Battery management systems (BMS)
- Passive and active cell balancing/equalizing
- Fuel cell, batteries and ultracapacitors
- Fault detection and fault tolerant control of energy storage
- State-of-charge (SOC) estimation techniques
- Charging and discharging protocols
- Thermal management of energy storage

IEEE IES Technical Committee Sponsoring the Special Session

- IEEE IES Standards Technical Committee

ORGANIZED AND CO-CHAIRIED BY

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Author's schedule:

- Deadline for submission of special session papers
May 1st, 2018
- Notification of acceptance
July 15th, 2018
- Deadline for submission of final manuscripts
August 1st, 2018