

# IEEE Transactions on Industrial Informatics



## CALL FOR PAPERS

for Special Section on



### “Advanced Informatics for Energy Storage Systems in Electrified Vehicles and Smart Grids”

**The Theme:** Energy storage is an enabling technology for many sophisticated mechatronic and power-electronic systems, such as electrified vehicles, portable electronics, and smart grid. Unlocking its potential in performance and cost requires intelligent management systems, designed meticulously at crossroads of multiple subjects, such as chemistry, material, control theory, and electrical engineering. In addition to properties such as enhanced efficiency and prolonged service life, advanced integration and management facilitate renewable ways of storing electrical energy from wind and solar energy sources, and accelerate a paradigm shift towards a sustainable transport system.

The objective of this special issue is to provide timely solutions for emerging scientific and technical challenges in advanced informatics of energy storage systems, with a particular focus on transport and power grid sectors. Original high-quality technical papers, as well as state-of-the-art survey papers and tutorials, are invited for submission. Topics of interest include but are not limited to:

- In-situ characterization and model development
- Prediction/estimation of energy system states in terms of available capacity, power, energy, temperature, etc.
- Thermal and electrical safety management
- Fault prognosis and diagnosis for energy systems and their associated sensors
- Charging strategy analysis, optimization, and control
- Cell and module balancing/reconfiguration algorithms and hardware design
- Vehicle-level and utility-scale energy integration and automatic control
- Cyber-physical system design in energy storage

#### Manuscript Preparation and Submission:

Follow the guidelines in “Information for Authors” in the IEEE Transaction on Industrial Informatics <http://www.ieee-ies.org/pubs/transactions-on-industrial-informatics> . Please submit your manuscript in electronic form through Manuscript Central web site: <https://mc.manuscriptcentral.com/tii> . On the submitting page #1 in popup menu of manuscript type, select: SS on **Advanced Informatics for Energy Storage Systems in Electrified Vehicles and Smart Grids**

Submissions to this Special Section must represent original material that has been neither submitted to, nor published in, any other journal. Regular manuscript length is 8 pages.

**Note:** The recommended papers for the section are subject to final approval by the Editor-in-Chief. Some papers may be published outside the special section, at the EIC discretion.

<b>Timetable:</b>	Deadline for manuscript submissions	<b>March 31, 2019</b>
	Expected publication date (tentative)	September 2019

#### Guest Editors:

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