THE 20TH IEEE INTERNATIONAL CONFERENCE ON INDUSTRIAL TECHNOLOGY IEEE-ICIT 2019

13 - 15 FEBRUARY 2019, MELBOURNE CONVENTION AND EXHIBITION CENTRE, MELBOURNE, AUSTRALIA

Special Session on

"The Energy Storage Systems in Emerging Technologies"

Organized by

Ali SARI, Lyon 1 University, France, ali.sari@univ-lyon1.fr
Pascal VENET, Lyon 1 University, France, pascal.venet@univ-lyon1.fr

Call for Papers

The growing energy needs of our society and depletion of fossils energy leads the emergence of applications such as electric or hybrid vehicles, smart-grid, super-grid. The electrical energy storage systems (EESS) are key components of these applications that generate new and attractive opportunities. A high mastery of characteristic and evolution with time of EESS such as batteries, supercapacitors, fuel cells and capacitor is essential for their optimal integration. In this aim, a special attention would be dedicated to the development of testing procedures, modeling and diagnosis methods related to this these devices. In addition, monitoring of aging and supervision of EESS allow to ensure safe, reliable and efficient performance of the global system operation. The impact of specific cost and amortized lifetime cost of EESS in global application must be estimated.

Topics of interest include, but are not limited to:

- Operating protocol optimization
- Electrical and thermal modeling
- Aging tests and aging laws
- Estimation of state of charge (SoC), state of function (SoF) and state of health (SoH)
- Strategies for performance, lifetime, cycle-life improvement
- Electrochemical aging phenomenon analysis
- Diagnostic and prognostics methods
- Real-time model parameters identification and estimation
- Energy Management Systems: architectures, thermal management, balancing circuit…
- Implementation of modeling and control in electric vehicles, smart-grid, super-grid and other applications
- Capital expenditure and Operating expenditure analyze

IES Technical Committee Sponsoring the Special Session:
IEEE IES Technical Committee on Energy Storage

Accepted papers will be published in an IEEE proceedings volume and will be also submitted for the International Publication in *IEEExplore*