

IEEE International Symposium on Industrial Electronics ISIE'17

19-21 June 2017, Edinburgh, Scotland

Special Session on “Resilient Renewable Energy & Storage Systems”

organized by

Principal Organizer: Yihua Hu (y.hu35@liverpool.ac.uk)

Affiliation: University of Liverpool, UK

Organizer 1: Chengbin Ma (chbma@sjtu.edu.cn)

Affiliation: Shanghai Jiao Tong University, China

Organizer 2: Mo-Yuen Chow (chow@ncsu.edu)

Affiliation: North Carolina State University, USA

Call for Papers

Theme: Advances in renewable energy and storage technologies provide new opportunities to optimize and transform today's power and energy systems. Representative industrial applications include hybrid and electric vehicles, micro-grids, and smart grids, which all operate in highly dynamic environments. The resilience engineering paradigm can provide a solution addressing the challenges of a robust, reliable and effective operation of those renewable energy and storage systems. In order to effectively react to various uncertainties, investigations are required to further understand the existing technologies such as the ageing mechanisms, estimation and monitoring of internal state, as well as new architectures and algorithms for fault-tolerant control and safety management. The main objective of this special session is to share new developments in design of resilient renewable energy and storage systems targeting both electric transportation, micro-grid and smart grid applications.

Topics of interest include, but are not limited to:

- State estimation, diagnosis and prognostic algorithms
- Testing, modelling and ageing laws
- Fault diagnosis, monitoring, and aging estimation

- Fail safe architectures and safety management
- Predictive resilience analysis
- Metrics for estimation of resilience
- Resilience driven system design

Submission procedure, deadlines, and author instructions:

A manuscript submitted to the Special Session of ISIE 2017 must be in the IEEE double format with single space 10p fonts and figures included in the text, so the length of the manuscript of 8 pages long in PDF format can be evaluated. For your convenience you may download the WORD template.doc from the conference website: <http://www.ISIE2017.org>

Deadlines:

- Reception of full paper: As for regular papers
(note: It is possible to accommodate an extension of a few days if authors contact organizers of the SS in advance.)
- Paper acceptance notification: March 1st 2017
- Camera ready paper reception: April 10th 2017

This special session is sponsored by the IES Technical committees on Energy Storage (ES TC) and Resilience and Security for Industrial Applications (ReSia TC)