



# IEEE INTERNATIONAL SYMPOSIUM ON INDUSTRIAL ELECTRONICS ISIE'18 12-15 JUNE 2018, CAIRNS, AUSTRALIA

#### **Special Session on**

## **Design of Resilient Renewable Energy & Storage Systems**

## Organized by

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## 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 react effectively 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 the 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:

- o State estimation, diagnosis and prognostic algorithms
- o Testing, modelling and ageing laws
- o Fault diagnosis, monitoring, and aging estimation
- o Fail safe architectures and safety management
- o Predictive resilience analysis
- o Resilience driven system design

All the instructions for paper submission are included in the conference website: http://www.ieee-isie2018.org