Call for Papers

Special Issue on New Trends in Things in Electricity: Computational-Intelligence-based Optimization, Security Control and Fault Diagnosis

The ubiquitous internet of things in electricity (IOTE) provides a new intelligent way to handle the different links of modern power grids, such as energy production, delivery and consumption. IOTE has deeply integrated several advanced technologies including Cloud Platform, Big Data, Internet of Things, Mobile Internet and Artificial Intelligence. Promoting the developments of IOTE will effectively improve the levels of security and energy management, and further benefit the renewable energy industry. Therefore, IOTE plays an important role in upgrading the energy industry and the construction of energy ecosystems.

Although IOTE brings a promising future of modern power grids, it also faces many technical and theoretical challenges in the optimization of energy management and the security of control. In order to address these crucial problems, it is necessary for IOTE to implement the computational-intelligence-based optimization algorithms, design advanced secure control strategies against the attacks from communication networks or sensors, and develop intelligent fault diagnosis schemes.

This special issue is focused on “New Trends in IOTE: Computational-Intelligence-based Optimization, Security Control and Fault Diagnosis”, and seeks for the original contributions

in artificial-intelligence-based optimization algorithms, secure control strategies and fault diagnosis methods for IOTE. A copy of the manuscript should also be emailed to the Guest Editors at gaohonghao@shu.edu.cn

Topics of interest include but are not limited to the following:

1、Modeling and planning of IOTE

2、Computational-intelligence-based optimization algorithms for IOTE

3、Reliability and stability analysis for IOTE

4、Artificial-intelligence-based secure control strategies for IOTE

5、Intelligent fault diagnosis schemes for IOTE

6、Hardware and software design for IOTE

7、Optimal control theory and its applications for IOTE

8、Real-time state estimation technologies for IOTE

9、Intelligent load forecasting methodologies for IOTE

10、Distributed control in multi-agent systems for IOTE

11、Computational-intelligence-based energy management methods for IOTE

12、Intelligent data processing technologies for IOTE

Important Date

Submission Deadline: Oct 2019

Acceptance Notification: Nov 2019.

Publication date: Jan 2020(Temporary)