

# Call for Papers

## Special Issue on “Application of new generation information technology in the smart power distribution and utilization system”

### Important Dates

**Full Paper Submission: November 30, 2020**

**Final Decision Notification: May 30, 2021**

**Publication of Special Issue: August 31, 2021**

New generations of Information and Communication Technologies (ICT), such as NB-IoT, LoRa, 5G, Optical Communication, Blockchain, Big Data and AI, are transforming the traditional power distribution and utilization system from lack of data, low visibility and weak controllability to information-rich, decentralization and strong interactivity. Besides, combining the innovation of new business models with the increasingly maturing technologies, such as distributed generators, energy storage sources and micro-grids can also promote the commercial operation mode of the power distribution and utilization system to change from the scheduling-driven operations to the data-driven distributed and/or decentralized autonomous operations.

Applications of ICT in the smart power distribution and utilization system require the integration and cooperation of communication technologies, safe operations of power grid, and AI across multiple disciplines. In order to stimulate the sharing of these research achievement, the editorial board of *CSEE Journal of Power and Energy Systems (CSEE JPES)* collaborating with the *IET Smart Grid* editorial board organize this special issue of "Application of new generation information technology in the smart power distribution and utilization system".

### Topics of interest include, but are not limited to:

- Applications of advanced information technologies in power distribution and utilization systems: AI, Big data, block chain and others.
- IoT technologies for power distribution and utilization systems: advanced metering and measurement, perception, intelligent hardware, clustering routing algorithm and others.
- Applications of 5G, optical communications and others advanced communication technologies in power distribution and utilization systems.
- Data-driven management and optimization of distributed energy resources and user group.
- Multi-agent autonomous operation and evolution strategy in the power distribution and utilization system.
- Fusion modeling between ICT system and power distribution and utilization system and their co-simulations.
- Digital twins, including modeling, analysis and optimization of the data-driven power distribution and utilization system.

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