Special Issue

Integration of Distributed Energy Resources (DERs) in Power Grid: Challenges and Solutions

Message from the Guest Editor

As distributed energy resources (DERs), such as renewable energy, distributed generation, demand response (DR), and energy storage systems, increase in a power grid, there are new challenges in power system operation and planning. In particular, the uncertainty and variability associated with DERs introduce various technical and economic problems in a power grid. Effective operation and planning methods are needed to handle the uncertainty and variability associated with DERs. The main purpose of this Special Issue is to attract high-quality articles that address challenges and solutions associated with integration of DERs in a power grid. Topics of interest include but are not limited to the following:

- Impact of DERs on power system operation and planning;
- Hierarchical operation of DERs;
- Monitoring, control and maintenance of DERs;
- Data analytics in smart meter data of DERs including uncertainty analysis and anomaly detection;
- Renewable generation forecasting;
- Load forecasting considering behind-the-meter (BTM) solar generation;
- Technical and economic issues in demand response;
- New business model using DERs.

Welcome to contribute

Guest Editor

Prof. Dr. Sung-Kwan Joo
School of Electrical Engineering, Korea University, Seoul 02841, Korea

Deadline for manuscript submissions

closed (30 November 2021)

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Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

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Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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