Digital Solutions for Energy Management and Power Generation

Message from the Guest Editor

The digital revolution in the energy sector is producing large volumes of data with relevant impacts on the business and functional processes of system operators, energy utilities and grid users. The main challenge is to develop advanced data-driven methods, integrating domain knowledge, which extract value from data for different domains: Descriptive, predictive and prescriptive. This Special Issue aims at encouraging researchers to address the following topics of interest, but the Special Issue is not limited to only this list:

- Frequency and non-frequency system services from distributed energy resources (DER)

- Energy efficiency, smart homes and buildings

- Flexibility modelling and control of DER: standalone or combined with renewable energy sources

- Optimal combination of different energy carriers

- New business models: local energy communities, transactive energy, federated/virtual power plants, etc.

- Wholesale and retail energy markets

- Monitoring and predictive maintenance of DER

- Data privacy and economy in the energy sector

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Message from the Editor-in-Chief

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