



Application of AI, IoT, and Blockchain in Smart Grids with Distributed Energy Resources

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Message from the Guest Editors

Dear Colleagues,

Communication between all the available components in smart grids is a major challenge. Hence, big data analysis and the internet of things (IoT) are more important for the development of smart grids. Artificial intelligence (AI) is an important technology driver for smart grids.

Topics of interest for this Special Issue include, but are not limited to, the following:

- AI for transactive energy
- Energy management by blockchain in smart grids
- Planning and operation of smart grids
- Demand response for increasing the penetration level of DERs
- AI for optimization of smart grids
- Internet of things in smart grid operation
- AI for peer-to-peer energy sharing
- Intelligent control of microgrids
- Resiliency, reliability, and security enhancement of smart grids
- AI for energy demand and generation forecasting in the power market
- AI for battery lifetime estimation in smart grids
- Smart grid flexibility improvement by AI
- AI application for electric vehicle integration in smart grid
- AI for integration of distributed energy resources





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Message from the Editor-in-Chief

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