

Special Issue

Operation of Smart Grids and Microgrids: Methods, Strategies, Optimization, and Challenges

Message from the Guest Editor

This Special Issue is dedicated to the application of advanced optimization manners and methods to the operation and control of smart grids, and microgrids, focusing on renewable energy resources, managing and decision-making regarding the operational issues in the presence of different uncertainties by wind power plants, photovoltaic systems, and electric vehicles; as well as different strategies and applications such as energy storages, demand responses, combined power and heat aspects, and the other resources/strategies applied to the integration of renewables and increasing their flexibility. Furthermore, the application of different energy carriers in these new systems is of great importance. Points of interest include, but are not limited to:

- Uncertainty modeling and decision-making;
- Optimal power flow;
- Optimal power and gas flow;
- Combined heat and power economic/emission dispatch problem;
- Optimal energy management;
- Electric vehicle management;
- Energy storage strategies and devices;
- Optimization algorithms;
- Control strategies;
- Hybrid (AC/DC) power networks;
- Multi-energy carrier operation;
- Demand response programs.

Guest Editor

Dr. Hamdi Abdi

Department of Electrical Engineering, Razi University, Kermanshah
67144-14971, Iran

Deadline for manuscript submissions

closed (30 September 2022)



Sustainability

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by MDPI

Impact Factor 3.3
CiteScore 7.7



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

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Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Marc A. Rosen

Faculty of Engineering and Applied Science, University of Ontario
Institute of Technology, Oshawa, ON L1G 0C5, Canada

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