

Special Issue

Demand Response Programs for Energy Systems: Challenges, State-of-the-Art, Future Trends

Message from the Guest Editors

This Special Issue seeks high-quality submissions that highlight emerging applications and challenges of demand response (DR) programs in electricity markets with the goal of covering viable DR frameworks, case study analyses, and necessary transformations in electricity markets to implement efficient DR programs successfully. The topics of interest include but are not limited to:

- Market participants interactions in DR programs;
- Efficient pricing mechanism design for DR programs;
- Residential appliances scheduling algorithms in DR programs;
- Applications of machine learning algorithms in designing autonomous DR programs;
- DR programs applications for energy management in industrial sectors (e.g., data centers);
- DR applications in ancillary services market (e.g., frequency regulation);
- DR programs applications in energy hubs, energy districts, and microgrids;
- The role of electric vehicles in DR programs;
- Online optimization algorithms design for DR applications;
- The role of Internet-of-Things (IoT) in DR programs;
- DR programs in transactive energy markets (e.g., direct trading of prosumers);
- DR programs in deregulated electricity markets.

Guest Editors

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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.

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