Special Issue

Game Theoretic Strategies for Efficient Energy Management of Home-Microgrids

Message from the Guest Editor

This Special Issue focuses on proposing an efficient energy management system in the form of incentive demand-side-management (DSM) and demand response schemes. Moreover, due to the presence of rational and smart agents (H-MGs' owners), the game-theoretic approaches including cooperative and non-cooperative can be applied as a promising solution. In fact, game theory applications would overcome existing challenges. It offers dynamically the best strategy to each agent such as the best time of purchasing and selling energy shortage and surplus, respectively. All in all, an efficient energy management system leads to reaching an overall equilibrium point (the most profitable situation for each H-MGs). The main objectives of the research are:

- An efficient energy management system according to day ahead and long-term scheduling to maximize the use of renewable resources and minimize the H-MGs costs.
- Introducing the incentive mechanisms in order to maximize the participation of H-MGs in demand response schemes.
- Reaching the collective utilities for stakeholders (H-MGs, network operator, retailers, and etc.), and thereby achieving the overall network equilibrium.

Guest Editor

Dr. Mousa Marzband

Physics and Electrical Engineering, Department of Mathematics, Newcastle, United Northumbria University, London E1 7HT, UK

Deadline for manuscript submissions

closed (30 June 2020)

Sustainability

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 7.7

mdpi.com/si/34698

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

mdpi.com/journal/sustainability

Sustainability

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 7.7

mdpi.com/journal/sustainability

About the Journal

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

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1 (Geography, Planning and Development)