# Optimal Operation and Energy Management of Microgrids



#### Guest Editor: Prof. Om Parkash Malik

Department of Electrical and Software Engineering, University of Calgary, Calgary, Canada.



# **Spacial Issue Intorduction**

To offset the effects of global warming due to greenhouse gas emissions, the generation of electricity using renewable sources is gaining momentum. Distributed generation is an effective means of harnessing these green energy sources. The microgrid concept, a networked energy supply and management technology, facilitates the access to distributed energy systems, and achieves demand-side management and efficient utilization of conventional and green energy. Microgrids offer an organic combination of distributed generation, energy storage, energy conversion devices, associated loads, monitoring, and protection in grid-connected and isolated modes of operation. Thus, as an approach and strategy that focuses on energy efficiency management and enhances energy saving, Microgrids offer an important pivotal position by providing engineering solutions for sustainable power systems.

This special issue is planned to cover the application and analysis of energy management systems of AC, DC, and hybrid AC/DC Microgrid under different situations for both islanded and grid-connected modes, and Microgrid operation optimization strategy to enhance reliability while maintaining power quality performance indicators.

It will include: Review papers, Original Articles, Communication, Perspectives, etc.

Topics of interest include, but are not limited to:

- Microgrids;
- Optimal operation;
- Optimal energy management, analysis;
- Green energy, distributed generation;
- Future power systems.



### **Benefits to Authors**

- The **APC**s (\$600) will be WAIVED;
- Authors will be invited as Guest Speakers to **journal webinars led by Prof. Om Parkash Malik.** The webinar will be held via Zoom and it will also be broadcast live on **Youtube** and the Chinese WeChat Of icial Account, Video Account, Bilibili;
- Enjoy **faster publication** than regular submissions;
- Provide **Language Polishing** Service by Native English Speakers. The fee is undertaken by the journal;
- A **special interview** will be provided to authors and will be promoted on the journal homepage and all media promotion platforms of both via the journal and publisher;
- Winner(s) of the "**Best Paper Award**" will be awarded. The reward will be in the form of a cash prize and a prize and a certificate.



#### (Online ISSN: 2767-2595)

## **Journal introduction**

Journal of Smart Environments and Green Computing (JSEGC, https://segcjournal.com/, 2767-6595) is a journal newly launched in 2021 with fast development in the past a year. It is an international, peer-reviewed, open access journal which provides an online platform for the publication of Research on Intelligent Environment and Green Computing.

## **Editorial Board team**



Witold Pedrycz



**Tadeusz** Burczyński



Humberto **Bustince** 



Oscar Castillo



Jinjun Chen



Jun Chen



**Shyi-Ming Chen** 



Z.Y. Dong



Hamido Fujita



Harish Garg



Josep M. Guerrero



Qing-Long Han



Hamid Reza Karimi



Hak Keung Lam



Peide Liu



Jie Lu



Patricia Melin



Elpiniki Papageorgiou



Radu-Emil Precup Yung C. Shin





Pierluigi Siano



Shun-Feng Su



Giancarlo Succi



Zita Vale



Joseph Wang



Zeshui Xu





Ronald R. Yager Laurence T. Yang



Edmundas Kazimieras Zavadskas



Peter P. Groumpos



Allel HADJALI Eyke Hüllermeier



S. S. lyengar



Vladik Kreinovich



Jay Lee



Stefano Marsili-Libelli



Luis Martínez



José M. Merigó Lindahl



Duc T. Pham



**Mukesh Prasad** 



Marek Z. Reformat



Pedro Rodriguez Madjid Tavana





Jizhong Zhu



**Amjad** Anvari-Moghaddam



Ahmedullah Aziz Jamal Bentahar





Francisco Javier Cabrerizo



Pasquale De Meo



Xianjun Deng



Giuseppe Fenza



Xiao-Zhi Gao



Rokia Raslan





**Fabio Leccese** 



Kenli Li



Pascal Lorenz Morteza Nazari-Heris



Mahardhika Pratama



**Mohammad** Hossein Zarifi

Qingchen Zhang Chunsheng Zhu