Special Issue

Optimization and Control in Energy Management: Mathematical Mode and Simulation

Message from the Guest Editors

We are pleased to invite the research community to submit a review or regular research papers on, but not limited to, the following relevant topics related to optimization and control in energy management:

- Demand side management and demand response
- Artificial intelligence optimization methods for renewable energy systems and energy management
- Frequency regulation using Virtual power plants
- Modeling and simulation for energy management
- EMS in smart electrical grids
- Algorithms
- Numerical simulations
- Mathematical modeling
- Analytical understanding
- Control Theory
- Energy-efficient systems
- Energy conservation techniques
- EMS in Mini and Micro-Grids
- Load and renewable energy generation prediction techniques
- Energy management for Smart cities and homes
- Energy management for improving power quality
- Optimization techniques and methods in energy management systems
- control methods and strategies in energy management systems

Guest Editors

Dr. Atanda Kamoru Raji

Department of Electrical, Electronic and Computer Engineering, Faculty of Engineering and the Built Environment, Cape Peninsula University of Technology, Cape Town 7535, South Africa

Dr. Khaled M. Abo-Al-Ez

Centre for Distributed Power and Electronic Systems, Cape Peninsula University of Technology, Cape Town 7535, South Africa

Deadline for manuscript submissions

closed (30 November 2023)



Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 4.6



mdpi.com/si/131295

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

mdpi.com/journal/mathematics





Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 4.6



About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

