AI-Based Modelling and Control of Power Systems

Guest Editors:

Dr. Mohammad Reza Maghami
Institute for the Future of Knowledge, University of Johannesburg, Johannesburg, South Africa

Dr. Javad Rahebi
Department of Software Engineering, Istanbul Topkapi University, Istanbul, Turkey

Dr. Mehdi Zareian Jahromi
Department of Electrical and Electronics Engineering, Amirkabir University, Tehran, Iran

Deadline for manuscript submissions:
10 March 2025

Message from the Guest Editors

Objectives:

1. **Showcase Cutting-Edge Research**: Present the latest advancements in applying artificial intelligence (AI) techniques to power electronics, with a particular focus on enhancing control systems and optimization strategies.
2. **Explore Cybersecurity Solutions**: Investigate novel AI-driven methods for detecting and mitigating cyber-attacks. This includes exploring techniques such as artificial neural networks (ANNs), deep learning, and machine learning for improved cybersecurity in power electronic systems.
3. **Highlight Advanced Control Strategies**: Demonstrate recent developments in control strategies and their integration with AI.
4. **Investigate Optimization Methods**: Examine advanced optimization techniques to enhance the efficiency and effectiveness of power electronic systems and control strategies.
5. **Foster Collaboration**: Encourage collaboration between researchers and practitioners in the fields of power electronics, AI, optimization, and cybersecurity. Promote the exchange of ideas and advancements to drive innovation and practical applications.

Special Issue

Editor-in-Chief

Prof. Dr. Giancarlo Cravotto
Department of Drug Science and
Technology, University of Turin,
Via P. Giuria 9, 10125 Turin, Italy

Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus,
SCIE (Web of Science), Ei Compendex, Inspec, AGRIS, and other databases.
Journal Rank: JCR - Q2 (*Engineering, Chemical*) / CiteScore - Q2 (*Chemical Engineering (miscellaneous)*)

Contact Us