

## Special Issue

# Advances in AC/DC Distribution Systems with High-Penetration of Renewable Energy

### Message from the Guest Editors

This Special Issue is devoted to disseminating recent research efforts and developing AC/DC Distribution Systems with High-Penetration of Renewable Energy. Topics of research include but are not limited to the following:

- Uncertainty modeling and the analysis of AC/DC distribution systems with high-penetration of renewable energy;
- Optimal planning of AC/DC power distribution systems for the higher accommodation of renewable energy;
- Optimal operation and interaction of multi-energy systems in AC/DC distribution systems;
- Flexible operation and coordinated control of AC/DC distribution systems;
- Multi-agent game modeling and theory in distribution systems;
- Cloud-edge collaboration frameworks and their application in distribution systems;
- Demand response modeling and strategies in distribution systems;
- Stability analysis and control of AC/DC distribution systems with high-penetration of renewable energy;
- Application of artificial intelligence (AI) and big data technologies for AC/DC distribution systems

### Guest Editors

Dr. Qian Xiao

School of Electrical and Information Engineering, Tianjin University, Tianjin 300072, China

Dr. Yu Jin

School of Electrical and Information Engineering, Tianjin University, Tianjin 300072, China

### Deadline for manuscript submissions

20 February 2026



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/207358](https://mdpi.com/si/207358)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

[mdpi.com/journal/appls](https://mdpi.com/journal/appls)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### 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, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )