

## Special Issue

# DC Grids: Recent Advances and Future Trends

### Message from the Guest Editor

The development of DC power grids co-playing with existing AC systems can facilitate large-scale integration, wide area transmission, and smart usage of renewable energy with enhanced reliability and operating efficiency. MVDC and LVDC are advocated not only to upgrade the existing infrastructure but also to meet new emerging applications along with power system liberalisation processes. This Special Issue aims to invite the latest developments and new perspectives for DC grid-related technologies from the wide community. Topics will cover but not be limited to:

- HVDC system, modelling, control, and protection;
- MVDC onshore and offshore applications, DC microgrid architecture, and operating strategy;
- Integration of energy storage element;
- Power electronics converters for HVDC and MVDC;
- DC fault localisation algorithms and DC circuit breakers;
- DC grid planning and optimisation;
- Interaction and coordination between DC and AC systems;
- DC grid standardisation and grid code proposals.

### Guest Editor

Dr. Peng Li

School of Engineering, University of Aberdeen, Aberdeen AB24 3UE, UK

### Deadline for manuscript submissions

closed (20 June 2023)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/84351](https://mdpi.com/si/84351)

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

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

[appls-ci](https://appls-ci.mdpi.com)





# 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 )