Special Issue

Modular Multilevel Converters for HVDC Transmission and MVDC Distribution Systems: Topology, Control, Modulation and Applications

Message from the Guest Editor

Multilevel converters are attractive power converter circuits for medium- and high-power applications. A DC-structure-based electric power system has recently become the most attractive solution for the expansion of high-voltage transmission and medium-voltage distribution networks, as well as the integration of renewable energy sources. Among the voltage source converter (VSC) technologies for DC electric power systems, the modular multilevel converter (MMC) is a promising and competitive technology over two- and three-level VSC topologies. The modular multilevel converter presents many advantages, such as low harmonics, low *dv*/*dt*, modularity, simple scaling, high reliability, low switching loss, no need for series connection of power semiconductors, and DC bus capacitor elimination, etc. This Special Issue will cover all technologies and applications related to MMC. Topics of interest include, but are not limited to:

- High-voltage transmission system
- Medium-voltage distribution system
- Modular multilevel converter
- Modulation method
- Control method
- Fault ride-through
- Multi-terminal DC grid
- System balance

Guest Editor

Dr. Jae-Jung Jung
School of Electronic and Electrical Engineering, IT College, Kyungpook National University, Daegu 41566, Korea

Deadline for manuscript submissions

closed (26 March 2022)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/82652

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

mdpi.com/journal/energies

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/journal/energies

About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, 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, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)

MDPI