Special Issue

Modeling, Control and Emerging Applications of Modular Multilevel Converters

Message from the Guest Editor

Modular multilevel converters (MMCs) are attractive power converter topologies for medium- and high-power applications due to their modularity, scalability, high quality output, and high efficiency, among other attractive features. They have already become a competitive solution for high-voltage direct current transmission systems. Given the introduction of wide bandgap power devices and the requirements to further improve power density, efficiency, and reliability, many technological challenges still remain. This special issue serves to document new achievements resulting from the research on MMCs, including new trends, frontiers, and advanced solutions of the practical issues associated with current and future applications. Topics of interest for publication include, but are not limited to:

- Advanced circuit configurations;
- Modeling of various MMC system;
- Control of MMCs;
- Improvement of modulations;
- Circulating current suppression;
- Post-fault operation;
- Capacitor size reduction;
- Optimization of operation;
- Solutions in MMC-related applications;
- Emerging applications of MMC.

Guest Editor

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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.

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