Special Issue

Multi-level Power Converters Systems

Message from the Guest Editor

Multilevel converters have been developed since the 80s, with the neutral point clamped inverter by A. Nabae, I. Takahashi, and H. Akagi, the flying capacitor inverter by T.Meynard and H.Foch and the cascade H-bridge inverter by M. Marchesoni. These converters are well suited for medium-voltage applications, but it is not possible to use them in high-voltage (HV) settings. The modular multilevel converter was developed in 2002 by Rainer Marquardt, allowing the use of voltage source converters for first time in HV applications, e.g., for HVDC converters. Recently, a new family of multiplexed multilevel converters was introduced by T.Meynard, demonstrating how it is still possible to find new topologies in this field. This Special Issue aims to report the latest progress in the development of multi-level power converter systems. Topics of interest include, but are not limited to:

- New multi-level power converters topologies;
- Advanced modulating techniques;
- Advanced voltage capacitor balancing strategies;
- New applications of multi-level power converters;
- Renewable energy applications;
- Battery applications;
- High-power applications.

Guest Editor

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

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