Special Issue

Advanced Multilevel Power Converters for Grid Integration of Renewable Energy Resources

Message from the Guest Editors

Power systems across the globe are experiencing an increased integration of renewable energy resources demanding the power system operators to explore and enforce new grid-forming and grid-supporting regulations and requirements to ensure the quality and reliability of the grid. Hence, renewable energy systems are required to be equipped with advanced features and control strategies to provide the required supporting functionalities to the grid such as power reserve control, frequency response, reactive power control, and so on. Given power electronic technologies will, therefore, be responsible for the control of power between most renewable sources, energy storage devices and the grid, they will play a key role in the upcoming gridtransformation process. Multilevel converters have become a standard for such applications as medium voltage drives, HVDC and FACTS, and are promising for the integration of renewable energy sources and energy storage systems. Therefore, this Special Issue focuses on advanced multilevel converters for the integration of renewable energy resources.

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