

The 46th Annual Conference of the IEEE Industrial Electronics Society



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Special Session on

<u>"Current Developments in Multilevel Converters: Modulation techniques,</u> <u>Reliability, Power Conversion Applications and Fault Tolerance Analysis"</u>

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Call for Papers

The special session would functionalize with recent advancements in multilevel converter based applications. It would deal with varied novel modulation strategies, which would include fundamental and PWM based switching strategies. The session would urge towards the high power conversion process from DC to AC and vice-versa. The performance of multilevel converters during fault operation and its diagnosis would give a in depth analysis for the workability pattern. Again, varied reliability aspects related to schemes would give an insight for efficient performance of the system during high power conversion from DC-AC. Novel multilevel converters would be discussed with reduced count devices and its impact on overall system performance. Its switching loss and conduction loss calculation would give befitting tool to assess the introduced scheme. Overall the special session would emphasize over the efficient aspects to be covered in advancement led by multilevel converters for industry applications.

Topics of the Session include:

- High Power Conversion Based Multilevel Converter Schemes
- Novel Modulation Schemes for Multilevel Converters
- Multilevel Converters performance analysis including varied types of losses
- Common Mode Voltage Reduction Methods in Multilevel Inverters
- Fault Tolerant Analysis of Multilevel Converters
- Reliability Analysis for different Configurations of Multilevel Converters