



**IEEE 14th International Conference
on Compatibility, Power Electronics
and Power Engineering
IEEE CPE-POWERENG 2020**



1-3 April, 2020
Setúbal, Portugal

Proposal for IEEE CPE-POWERENG 2020 Special Session

Special Session on: **“Advancement in Multilevel Converters: Modulation techniques, Control Strategies, High Power Applications and Fault Tolerance Analysis”**

Technical Outline of the Session (100-200 words) and Topics: The special session would functionalize with recent advancement in multilevel converter based topologies. 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 various closed loop control strategies 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.

Topics of interest include, but are not limited to:

- ✓ Novel Multilevel Converter Schemes
- ✓ Novel Modulation Schemes and Control Strategies for Multilevel Converters
- ✓ Multilevel Converters for High Power Applications
- ✓ Common Mode Voltage Reduction Methods in Multilevel Inverters
- ✓ Fault Tolerant Analysis of Multilevel Converters

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