

Annual Conference of the IEEE Industrial Electronics Society (IECON 2021)

Special Session on **“Advancements in Multilevel Converters for Electric Vehicles/ Grid-Tied Applications”**

Organized by

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Call for Papers

The special session would functionalize with recent advancements in multilevel converters (MLCs) for electric vehicle (EVs) and grid-tied applications. This would deal with emerging modulation strategies, high power conversion for DC/AC applications. As MLC's has a large number of active switches, driver circuits, etc involved, it could lead to fault. Therefore, the resilience and fault-tolerant capabilities are the major aspects needed to be dealt. Resilience capability is required for the overall life-cycle assessment. Electromagnetic compliance (EMC) is the major need for the EVs. For EMI prediction, suppression and EMC optimization design for EVs. The session would provide new outlook for the efficient and reliable system for EVs and grid-tied applications.

Topics of interest include, but are not limited to:

- ✓ Fault-Tolerant Analysis for different Configurations of Multilevel Converters
- ✓ New advancements in MLCs for EVs and grid-tied systems
- ✓ EMC optimization designs for EVs
- ✓ Novel Modulation techniques for MLC configurations
- ✓ Modelling, simulation and analysis for the efficient and reliable systems for EVs
- ✓ Power quality assessment for MLC based configurations for EVs
- ✓ Advanced control algorithms for the system

1 Good quality papers may be considered for publication in the IEEE Trans. on Industrial Electronics, subject to further rounds of review.