



IEEE 18th Power Electronics and Motion Control Conference (IEEE – PEMC 2018)
Hungary, Budapest (Europe), August 26-30, 2018

Special Session SS1 on
Modeling and Control of Multilevel Converters

Call for Papers

For sustainable global attention for renewable energy applications (PV/Wind/Fuel cells), the front end industries and researchers primary focus are toward Multilevel Inverter (MLI) technologies. Apart they also found application in medium/high power applications for ac motor drives and the grid power quality. Extended futures applied to the concept of ‘more-electric’ aircraft, electric ship propulsion, multiphase drives and traction includes both electric/hybrid vehicles.

Configuration is framed on modular version and feasibility to synthesis high voltages by multiple dc sources and multiple semi-conductors switches (IGBT/MOSFET) and therefore limited the device ratings. Redundancy with fault tolerant capabilities, transformer-less structures and reduced filter requirements are the unique futures of MLI's.

But, still multilevel inverters posses disadvantageous due to the complex control scheme with and need to control more number of switches need to upgrade the digital processor architectures and implementation industrial issues. This special session set to achieve new modular multilevel converters configurations, modulation strategies, control schemes and fault tolerant operations. Special session provides the platform for the enhancing the capabilities and solving the problem addressed with MLI's for better utilization for future demands.

Topics of interest include, but are not limited to:

- New configuration for the multilevel inverters, modeling and control issues
- New modulation scheme with fault tolerant capabilities and redundancy
- Modulation techniques for the compensation of homo-polar components
- MLI's fits to the application to three-/multiphase AC motor drive applications
- IE3/IE4 motors energy efficient and their high performance control
- MLI's for specific application for renewable energy, grid integration for power quality and power system (SVC, STATCOM, FACTS etc.) applications

Submission procedure: This is the same as for regular papers.

All the instructions for paper submission are included in the conference website: <http://ieeepemc2018.org>

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Deadlines: Full paper submission (maximum 6 pages): **9 March 2018**
Paper acceptance notification: **8 April 2018**
Final manuscript and early payment: **8 June 2018**