

Call for Papers for the Special Session on

**MODELLING, CONTROL AND APPLICATION OF REDUCED SWITCH
MULTILEVEL CONVERTERS**

Organized and co-chaired by

Dr. Farhad Ilahi Bakhsh, NIT Srinagar, Srinagar (J&K), India

farhad.engg@gmail.com

Dr. Fareed Ahmad, SND COE & RC, Nashik, India

fareed903@gmail.com

Prof. Kouzou Abdellah, University of Djelfa, Algeria

a.kouzou@univ-djelfa.dz

Prof. Atif Iqbal, IEEE Fellow, Qatar University, Qatar

atif.iqbal@qu.edu.qa

Technical Outline of the Session and Topics

Multilevel converters have received attention in recent years for medium/high voltage and high power industrial and residential applications. The main advantages of multilevel converters over two-level converters include less voltage stress on power semiconductors, low dv/dt, low common voltage, reduced electromagnetic interference and low total harmonics distortion. Better output power quality is ensured with increasing number of levels in the synthesized output voltage waveform. Reduced switch multilevel converters are gaining attention compared to other existing topologies because of a reduction in devices and the overall cost of the converter. The reduced switch multilevel converter, although a proven and enabling technology, still presents numerous challenges in topologies, modulation and control, and in need-based applications. Research and development in the area is growing and research groups worldwide are working to broaden reduced switch multilevel converters' application areas, further improve their energy efficiency, reliability, power density, cost, and competitiveness compared to classic topologies.

Topics of the session include, but are not limited to:

- Novel topologies of reduced switch multilevel converters
- Improved design and analysis of reduced switch multilevel converters
- Efficiency enhancement of reduced switch multilevel converters
- Power quality improvement of reduced switch multilevel converters
- Advanced modulation techniques based reduced switch multilevel converters
- Advanced control techniques for reduced switch multilevel converters
- Control optimization and harmonic optimization
- Fault tolerant and reliability of reduced switch multilevel converters

Timeline for Authors

All the instructions for paper submission are available on the conference website. Please visit www.iecon2026.org or scan the QR code for the timeline.

