



ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY

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Special Session on

Impedance Source Converters-Improved Topologies, Advanced Control, and Emerging Applications

Organized and co-chaired by:

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Call for Papers

Technical Outline of the Session and Topics:

Impedance source converters overcome the boost ratio limitation of traditional solutions in a single-stage topology through embedding a network with inductors, capacitors, and switches/diodes. In addition, it is possible to get rid of the dead time between phase-leg switches thus to enhance the reliability of the entire power system. For this challenging topology, widespread investigations have been performed on improved topologies, modified modulation techniques, advanced control methods, and various applications including electric drives, renewable energy systems, transportation, battery energy storage, etc. The aim of this special session is to concentrate all related contributions on impedance source converters to provide a common environment for presentation and discussion on their emerging research, development, and applications.

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

- Improved topologies
- Advanced modulation and control strategies
- Multilevel / Multiphase impedance source converters
- Impedance source isolated/non-isolated DC-DC converters
- Impedance source DC-AC/AC-DC converters
- Impedance source matrix converters
- Fault detection and fault-tolerant control for impedance source converters
- Wide Band Gap devices implementation in impedance source converters
- Techniques of optimizing impedance source network parameters
- Applications in renewable energy power systems
- Applications in electric vehicles and motor drives
- Novel applications



Author's schedule:

Deadline for submission of special session papers	April 15, 2024
Notification of acceptance	June 10, 2024
Deadline for submission of final manuscript	July 01, 2024
Early submission is highly encouraged for early decision notifications!	



All the instructions for paper submission are included in the conference website:

www.iecon-2024.org