









ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY

Chicago | Illinois, November 3-6, 2024

Special Session on

Future MVDC & LVDC Networks: Architecture, Topology, Control & Applications

Organized and co-chaired by:

Prof. Abhisek Ukil, The University of Auckland, New Zealand Prof. Dongyu Li, East China Jiaotong University, China Prof. Gen Li, Technical University of Denmark, Denmark

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Call for Papers

Technical Outline of the Session and Topics:

The use of DC technology in modern power systems has experienced rapid growth in recent years, and DC transmission has experienced increased application globally. Thanks to progress in electrification and digitalization, more implementation of DC technology at the distribution level is expected. Compared to the traditional AC distribution network, the MVDC & LVDC can offer flexible topology and controllable power flow, with potential for off-grid operation. However, the widespread adoption of MVDC & LVDC is heavily dependent on the future technical breakthroughs, including system protection and reliability of power electronic devices, and consensus on network topologies, voltage levels, and associated aspects.

This special session invites papers on architecture, topology, control, applications and standardization of future MVDC & LVDC networks, as well as the conversion stage and efficiency analysis of connection between distributed DC power sources and local loads.

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

- **MVDC**
- LVDC
- Network architecture
- DC and AC/DC circuit topology
- Converters & enabling technologies
- Control of MVDC, LVDC
- Protection of MVDC, LVDC network
- Transition from AC to DC
- Electric Vehicle(EV) integration
- DC datacenter application
- DC in homes

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