

Annual Conference of the IEEE Industrial Electronics Society (IECON 2022)

Special Session on

“DC-DC Conversion- Power Circuits and Applications”

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Call for Papers

DC-DC converters play a critical role in controlling voltage and current for power circulation at various levels, particularly in distribution generators, hybrid vehicles, satellites, aerospace, and microgrid applications. Modern DC-DC converter technologies have gained popularity for their adaptability to new control and modelling approaches. Compatibility, cost, power density, capability, voltage or current conversion stability, reactive and semiconductor unit dimension requirements and quantity, number of DC resources, effectiveness, control, integrity, and so on are all important factors to consider for a reliable procedure and techno-economic understanding. The adaptation of innovative control artificial intelligence (AI) methods has suggested and emphasized a variety of power setups for DC-DC systems. This special session aims to bring together all the new technologies in DC-DC Power converter, such as power circuits, synthesis, mathematical modelling, layout, cost optimization, control, artificial intelligence, and so on, on a single platform.

Topics of interest include, but are not limited to:

- 1 High Voltage Gain Converters or High-Frequency Converters.
- 2 Multiport-, Multilevel-, Switched inductor-, Switched capacitor-, Z Source- based DC-DC Converters, etc.
- 3 High Voltage DC-DC converter loss, thermal modeling, cost, reliability, and stress analysis.
- 4 DC-DC Converters: Renewable Energy Integration from a Techno-Economic Perspective
- 5 High-density DC-DC converter with high efficiency.
- 6 DC-DC converter topological survey and analysis
- 7 DC-DC Converter Optimal Design and Control
- 8 DC-DC Converters with lower voltage and current stress

Sponsoring IES Technical Committee(s)

IEEE IES Power Electronics Technical Committee (PETC)

Submissions Procedure:

All the instructions for paper submission are included in the conference website: <https://iecon2022.org/>

Deadlines:

Full paper submission:	April 15, 2022
Paper acceptance notification:	June 17, 2022
Camera-ready paper submission:	July. 29, 2022

Please send this completed document to:

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