

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

Special Session on

“Advanced design and control of Modular Active Front-end Converters for automotive and stationary applications”

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Call for Papers

Active Front-end (AFE) converters have become popular for different types of applications where bidirectional power flow with control over the DC bus voltage and input currents is required. This Special Session focuses on recent advances in the field with regard to advanced modular topologies and control methods. Indeed, modular AFE converters offer higher reliability and efficiency and enable advanced control features to optimize the operation of the system. Also, the modularity allows for different power level applications without requiring high rating individual components. Contributions in this Special Session are expected with regard to different applications of these modular AFE converters.

Topics of interest include, but are not limited to:

1	Grids and microgrids interfacing power electronic converters
2	Converter design optimization
3	Wideband gap semiconductors in AFE
4	AFE in renewable energies applications
5	AFE in automotive applications: V2G; G2V, V2X
6	Virtual Inertia in grids and microgrids
7	Masterless control in AFE
8	Dynamic resource allocation for increased reliability

Good quality papers may be considered for publication in the IEEE Trans. on Industrial Electronics, subject to further rounds of review.

This Special Session is endorsed by the **IES Technical Committee on Power Electronics (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