

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

Special Session on

“Advanced Control Techniques for Power Electronics Converters”

Organized by

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Call for Papers

Theme:

The demand for high-quality electrical energy has increased considerably in recent years. Basically, the power converters can be used in wide range of applications which require electrical power conversion, conditioning, compensation, and active filtering through the use of well-designed control methods which should meet the desired objectives set for each application. These applications involve integration of renewable energy sources to the utility grid by means of appropriate converter topology, uninterruptible power supplies, and power quality improvement. This session is intended to provide an insight on the latest control methods of various power converters mentioned above.

Topics of interest include, but are not limited to:

1	Lyapunov-function based control methods of various power converters
2	Sliding mode control of various power converters
3	Finite control set model predictive control of various power converter
4	Continuous control set model predictive control of various power converters
5	Combination of Lyapunov-function based control and model predictive control methods
6	Combination of sliding mode control and finite control set model predictive control methods
7	Sensorless MPC for electrical machines
8	Cost function design and weighting factors tuning in MPC
9	Application to mega-watt range wind turbines

Sponsoring IES Technical Committee:

IEEE IES Technical Committee on Power Electronics <https://petc.ieee-ies.org/>

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