

# CALL FOR PAPERS



## Special Session on <Smart Transformer: Design, Control and Impact on future distribution grid>

IECON 2018 - The 44<sup>th</sup> Annual Conference of the IEEE Industrial Electronics Society  
October 21-23, 2018, Washington D.C, USA



### TOPIC OF THE SPECIAL SESSION

Smart Transformer: Design, Control and Impact on future distribution grids

Outline of the session goes here....

The solid-state-transformer based smart transformer (ST) integrating control and communication can provide ancillary services to distribution grid with high penetration of distribution generators and electrical vehicle charging stations. Unlike the conventional distribution transformer, the ST can improve power quality, compensate harmonics, increase system stable margin, damp resonance, provide reactive power compensation, control power flow and provide hybrid-grid operation. The objective of this session is to focus on the potential application of ST in future distribution grid, to provide an open opportunity for presentation and discussion of advanced technologies, while promoting academic and industrial interaction and cooperation.

Topics of interest include, but are not limited to:

- Power converter topologies for high efficiency and reliability
- Modeling and control of ST
- System configuration of ST in distribution grid
- Impacts of ST on grid stability
- Faulty tolerant control under ST submodule fault conditions
- Protection and selectivity in ST-fed LV AC and DC grids
- Ancillary services of ST in LV and MV grids

### ORGANIZED AND CO-CHAIR BY

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### Author's schedule:

- Deadline for submission of special session papers  
May 1, 2018
- Notification of acceptance  
July 15, 2018
- Deadline for submission of final manuscripts  
September 7, 2018