



3rd International Conference on Smart Grid and Renewable Energy

www.sgre-qa.org

20-22 March 2022
Doha, Qatar

Special Session on Advancement In Custom Power Devices For Smart Grid Networks

organized and co-chaired by:

Hasan Komurcugil hasan.komurcugil@emu.edu.tr
Shafi Khadem shafi.khadem@ierc.ie
Malabika Basu malabika.basu@TUDublin.ie

Call for Papers

Outline of the Session:

Towards the development of decarbonized smart grid networks, the custom power devices (CPDs) such as UPQC, DVR, STATCOM APFs are playing important role in improving grid stability and power quality, especially in the distribution grid networks. Thus, this special session will reveal the progress of CPDs in terms of their design, control and integration/placement in the networks with high penetration of distributed energy resources (DERs) such as variable renewable energies (VRE), electric vehicles (EV), heat pump (HP), flexible loads etc. Solutions must consider the presence of any DER in the network.

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

- Advanced design and dynamic control strategies of CPDs
- Parallel operation and distributed control of CPDs
- Multi-functional CPDs for grid stability and power quality improvement
- Design, control and operation of multi-level or multi-modular types CPDs
- Integration/placement of CPDs in grid-connected or off-grid microgrid networks or weak distribution grid network
- Real-life demonstration examples of CPDs, network analysis and loss minimization, techno-economic analysis, business case scenarios
- Future trends of CPDs for decarbonized smart grid networks

Best paper(s) from this SS will get the opportunity to include the extended work as a book chapter in the upcoming prestigious book "Design and Control of Active Power Filters towards the Decarbonisation of Smart Grid Networks" which will be published by Elsevier in July 2022.

Author's schedule:

Deadline for submission of special session papers December 15, 2021
Notification of acceptance January 1, 2022
Deadline for submission of final manuscripts 1 February 2022

All the instructions for paper submission are included in the conference website:

<http://www.sgre-qa.org/>