



**12th International Conference on
Compatibility, Power Electronics and
Power Engineering
CPE-POWERENG 2018
10-12 April, 2018, Doha, Qatar**



**Special Session on
Matrix Converters
organized and co-chaired by:**

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Call for Papers

Outline of the Session:

The world must solve important challenges to control and transform energy in an efficient way. Examples of this are in transportation, renewable energies and industrial processing applications. These problems can be solved using power converters based on modern power semiconductor devices. The ideal converter in many of these applications may have the following characteristics:

- i. Sinusoidal input and output currents.
- ii. Operation with unity power factor.
- iii. Regeneration capability.
- iv. Compact design with a good power to weight ratio.

All these characteristics can be fulfilled by matrix converters and this is the reason for the tremendous interest in this topology. In the last decade many advances in the development of this topology have been presented, including industrial applications up to megawatt levels. This special session will present to the power electronics community the most recent advances with topics such as, but not limited to, the following:

- Matrix Converter derived topologies (indirect, sparse, very sparse, ultra-sparse, etc.)
- Matrix Converters using new semiconductor device technology
- Matrix Converter demonstrators for aerospace, transportation, renewable energy and industrial applications.
- New control/modulation methods for Matrix Converter applications, including SVM, DTC, Predictive Control.
- Implementation of intelligent current commutation strategies
- Power quality issues, converter reliability and converter stability.
- Isolated AC/DC and AC/AC matrix converters with integrated HF link.

Author's schedule:

Deadline for submission of special session papers	November 15, 2017
Notification of acceptance	January, 2018
Deadline for submission of final manuscripts	February, 2018

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

<http://www.cpe-powereng2018.org/>