



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



**Special Session on
Latest Developments in Sliding Mode Control and Its Applications
organized and co-chaired by:**

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Call for Papers

Outline of the Session:

Sliding mode control (SMC) merits attention by many researchers due to its ability to offer high robustness to parameter variations, fast dynamic response, guaranteed stability and simplicity in the implementation. Generally, the design of SMC involves two steps, namely, the design of sliding surface function and design of the suitable control law which drives the system state trajectories onto the predefined sliding surface and maintains the movement of these trajectories on this surface. The most commonly used sliding surface function is the linear surface function based on combination of the system states. However, higher-order sliding surface function and nonlinear sliding surface function (used together with terminal SMC concept) are also emerged as alternative solutions. SMC approaches developed in continuous- and discrete-time domains have been successfully applied in power electronics, electric drives, mechatronic systems, manipulators, vehicles and spacecraft. Hence, the purpose of this Special Session is to create a platform for researchers, engineers and practitioners to present their latest theoretical and technological improvements in the sliding mode control.

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

- SMC design methodology in continuous and discrete-time
- SMC design with higher-order sliding surface function
- SMC design with nonlinear sliding surface function
- Terminal SMC design
- Adaptive SMC design
- Sliding mode observers
- Chattering reduction methods
- New methods to fix the switching frequency
- Applications of recent SMC techniques for power electronic systems, electric drives, mechatronic systems, manipulators, vehicles and spacecraft.

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/>