



## 3rd International Conference on Smart Grid and Renewable Energy

[www.sgre-qa.org](http://www.sgre-qa.org)

20-22 March 2022  
Doha, Qatar

### Special Session on

### On-board Electric Vehicle Charging Technologies

#### Organized and Chaired by:

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### Call for Papers

#### Outline of the Session:

Extensive researches are being interested on electric vehicle technologies due to its numerous advantages over conventional vehicles such as no emissions and low maintenance, etc. The development of charging technologies for electric vehicles is crucial for the advancement of electric vehicles and their dominant role in the future smart grids. Various innovative topologies are being developed for on-board charging of electric vehicles in the main aim to improve on-board electric vehicle charger efficiency, reliability, power quality, bidirectional power flow control and cost. Actually, many research groups across the world are working on this very interesting topic in order to make it more attractive and competitive compared to the existing topologies.

This special session will mainly focus on emerging topologies, advanced design and control of “On-board Electric Vehicle Charging Technologies”, especially those related to the smart grids and those are integrating renewable energy sources.

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

- ❖ Novel design and analysis of on-board EV charging topologies
- ❖ Efficiency enhancement of on-board EV chargers
- ❖ Power quality improvement of on-board EV chargers
- ❖ High frequency novel resonant converters for low and medium power EV chargers
- ❖ On-board EV chargers power flow control and management
- ❖ Optimization of EV chargers for bidirectional power flow control
- ❖ Modulation and control of multilevel converters application in on-board EV chargers
- ❖ Energy effective dc-dc converters for on-board EV charging
- ❖ Protocol integration to smart grids
- ❖ Low and medium EV charging stations
- ❖ Effect of low and medium charging on the existing power system
- ❖ On-board EV charging standards (including charger and connector)
- ❖ Integration of renewable energy sources in fast charging stations

#### Author's schedule:

Deadline for submission of special session papers

December 1, 2021

Notification of acceptance

January 1, 2022

Deadline for submission of final manuscripts

February 1, 2022

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

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