



Home to some of the largest and most diverse energy-related companies, and more than 30,000 energy industry professionals, Charlotte has been dubbed the "New Energy Capital" of North America. It will also be the destination for the 9th International Symposium on Power Electronics for Distributed Generation Systems (PEDG 2018).

The symposium, sponsored by IEEE Power Electronics Society and organized by the PELS Technical Committee on Sustainable Energy Systems will provide a venue for power electronics experts to present the results of their cutting-edge research and learn what is in store for the future of the electric power grid. PEDG 2018 will feature keynote speeches, tutorials, and regular technical sessions on theory, analysis, design and development, testing, deployment and impact of power electronics for distributed generation, energy storage, and sustainable energy resources.

#### Publication and Awards

All papers presented at PEDG 2018 will appear on IEEE Xplore and will be listed in Ei Compendex. Three papers will be awarded "Best paper", as selected from the paper submissions.

#### Symposium Location

Located in the Piedmont region of Southeastern United States, Charlotte is the largest city in the state of North Carolina and has been among the fastest growing US cities for a number of years. The city, with its unique attractions, and proximity to the mountains and the beaches, is a well-connected transportation hub. UNC Charlotte is the urban research University of North Carolina with a growing student population of about 28,000. The Energy Production and Infrastructure Center (EPIC) at UNC Charlotte is a state-of-the-art center that provides educational, collaborative, and multi-disciplinary research opportunities for students, faculty, and industry partners. The symposium tutorials and technical sessions will be held at the Hilton Charlotte University Place.

#### Social Program

A social program will be organized for symposium attendees and accompanying persons as an opportunity to better network with their colleagues and to experience the attractions which the city of Charlotte has to offer.

## Contact PEDG 2018

Website: [www.ieee-pedg.org](http://www.ieee-pedg.org)

Email: [contactepic@unc.edu](mailto:contactepic@unc.edu)

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## Submission of Papers

Prospective participants are invited to submit an extended abstract of their original work. The document should be in English and should not exceed five single-column double-spaced pages. The submitted abstracts will be subjected to a peer-review process. Detailed instructions on preparation of the abstracts and the submission process will be available on the symposium website.

#### Track 1: Power Electronics for Sustainable Sources

1a. New power converters and controls for wind, solar PV, CHP, wave and tidal, and fuel cell power

1b. High efficiency power conversion for sustainable sources: efficiency improvements using new topologies, semiconductor devices and magnetic materials

1c. Grid integration using solid state transformers, and medium voltage dc distribution

1d. Islanding detection, protection and standards of DG systems

#### Track 2: Energy Storage Systems

2a. Power electronics for battery energy storage systems, supercapacitors / ultracapacitors, hybrid energy storage

2b. Power electronics for charging and operation of electric, hybrid electric, and plug-in hybrid electric vehicles

2c. Energy management, optimal sizing of energy storage, and power converter systems for various use cases: peak shaving, intermittency mitigation etc.

#### Track 3: Distributed Generation Interacting with Power Transmission and Distribution Systems

3a. Microgrids / nanogrids - grid interconnected and islanded operation

3b. Distributed generation power electronics and electric power quality - voltage, frequency, harmonics impacts and mitigation

3c. Power electronics as power stations: demand response, high penetration of distributed generation power electronics in the grid, and renewables generation forecasting applied to power electronics

#### Track 4: Other Advanced Topics

4a. Power semiconductor modules development for distributed generation power electronics

4b. Power electronics and Cybersecurity issues

4c. Energy policy and public policy issues relating to power electronics based distributed and sustainable generation systems



## Important Dates

**Extended abstract submission due:**  
December 01, 2017

**Notification of acceptance:**  
March 15, 2018

**Final manuscripts due:**  
April 23, 2018