

PEDG 2021

12th International Symposium on Power Electronics for Distributed Generation Systems

June 28th- July 1st, 2021

Virtual
Conference



IEEE



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The 2021 IEEE 12th International Symposium on Power Electronics for Distributed Generation Systems (PEDG 2021) will be held on **June 28th – July 1st, 2021**.

This international symposium, sponsored by IEEE Power Electronics Society and organized by the PELS Technical Committee on Sustainable Energy Systems, will provide a venue for experts to present the results of their cutting-edge research in power electronics and distributed generation (DG) systems. PEDG 2021 will feature all-virtual plenary speeches, tutorials, and regular technical and poster sessions on theory, analysis, design and development, testing, deployment and impact of power electronics for distributed generation, energy storage, and sustainable sources.

Call For Tutorial Proposals

An important part of the technical programs at past PEDG Symposia have been tutorials, and proposals are invited for technical and professional education tutorials at PEDG 2021. The tutorials may be on topics provided in the tracks below.

Prospective presenters are invited to submit their proposals for tutorials. The proposals are expected to contain: (1) Page-1: Contact information for all the presenters and identification of the corresponding author, short biography (no more than 150 words) of each presenter, title of presentation (2) Page-2: Description no more than 1000 words.

The proposals must be in the form of a single PDF file, submitted via email to pedg2021@ieee.org (Subject: CFT_Proposal_PEDG2021_Track_X). All submitted proposals will be reviewed by the symposium program committee and six to eight tutorials are expected to be selected. Each selected tutorial may have a maximum of three presenters but only one will be the corresponding presenter. Each tutorial is expected to be no more than two hours duration.

Track 1: Power Electronics for Sustainable Sources

- New power-converter controls for wind, solar PV, CHP, wave, and tidal, fuel cell, other DERs
- High efficiency power conversion for sustainable sources: efficiency improvements using new topologies, WBG power semiconductor devices, and magnetic materials
- Multi-port or multi-level power converters and applications
- Grid integration using solid state transformer (SST), controllable distribution flexible alternating current transmission systems (D-FACTS), and medium voltage DC distribution
- Islanding detection, protection, and standards of DG systems

Track 2: Energy Storage Systems

- Power electronics for battery, supercapacitor, and hybrid energy storage systems
- Power electronics for wireless and wired charging and operation of electric, hybrid electric, and plug-in hybrid electric vehicles
- Energy management, optimal sizing of energy storage, and power converter systems for various cases including peak shaving, intermittency mitigation etc.

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

- Ac/Dc microgrids and nanogrids – grid interconnected and islanded operation; networked microgrids
- Distributed generation power electronics and electric power quality – voltage, frequency, harmonics impacts and mitigation
- 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

- Power semiconductor modules development for distributed generation power electronics
- Power electronics and cybersecurity issues (including digital twin applications)
- Hardware-in-the-loop systems and real-time simulation for distributed generation
- Energy policy and public policy issues relating to power electronics based distributed and sustainable generation systems (Note: focus more on standards) EV charging, cyber security, SST

Important Dates

Proposal Due	Notification of Acceptance	Presentation/Video Due
January 31, 2021	March 1, 2021	May 25, 2021

ALL VIRTUAL CONFERENCE

PEDG 2021 will be entirely hosted on an engaging and easily accessible online platform. Attendees will gain a unique opportunity to connect with the global power electronics community and gain access to the various technical sessions that PEDG 2021 has to offer.

Take a virtual tour of the City of Chicago and get to know its magnificent history from here: <https://www.chicago.gov/city/en.html>