

CALL FOR PAPERS

2022 IEEE PES GENERAL MEETING
17–21 JULY 2022 | DENVER, COLORADO

Powering a Sustainable Future in a Changing World



The 2022 IEEE Power & Energy Society General Meeting will be held 17–21 July 2022 in Denver, Colorado. This premier power engineering conference will bring together practicing power engineers and academics from all over the world. The aim of the conference is to provide an international forum for experts to promote, share, and discuss various issues and developments in the field of electrical power engineering.

The theme of the meeting is:

Powering a Sustainable Future in a Changing World

Papers are invited on all topics related to electric power and energy and especially for the Super Sessions topics with the following focus:

Extreme Events and Their Impact on Power Systems

- Extreme weather conditions' effect on generation, transmission and distribution
- Extreme Cold Weather Events
- Resilience of Electricity and Fuel Infrastructures Under Extreme Events
- Pandemic Impact on Power Systems
- Resource adequacy
- Critical dependency of infrastructures (such as natural gas pipeline, water, etc.)
- Black Swans (low probability, high impact) events
- Planning and forecasting aspects

Energy Sustainability

- Integrate different types of resources
- Energy transition
- Energy storage
- Modeling aspect
- Carbon sequestration
- Carbon neutral
- Infrastructure buildout
- Cost and economics
- Load-resource matching

Artificial Intelligence in Power Systems

- Applications of Supervised Machine Learning in Power Systems
- Applications of Unsupervised Machine Learning in Power Systems
- Applications of Reinforcement Learning in Power Systems
- Applications of Graphical Learning in Power Systems
- Applications of Generative Model (e.g., GAN, autoencoder) in Power Systems
- Applications of Physics-Informed Machine Learning in Power Systems
- AI's Implications to Power Systems

Impact of Power Electronics on Electrical Infrastructure

- Case Studies and Operating Experiences in Europe
- Case Studies and Operating Experiences in North America
- Operating challenges of 100% IBR based systems in the event of natural disasters
- Control coordination of (HVDC and FACTS) with (solar PV systems and wind power systems) with advanced grid support functions
- Control coordination of grid forming inverters; grid following inverters (solar PV and wind power systems) with advanced grid support functions; and HVDC/FACTS
- New Technologies: Operating solar PV systems both during Night and Day as STATCOM (PV-STATCOM) for providing:
 - FACTS functionalities (on 24/7 basis): power oscillation damping (POD), FIDVR mitigation, SSR alleviation, Dynamic voltage control for increasing connectivity of neighboring wind farms, Dynamic reactive power support, etc.
 - FR alone or combined (FFR and POD) during daytime
 - Both i) and ii) by solar PV systems in conjunction with BESS
- Relay aspects

2022 PES General Meeting Information for Paper Submission, Presentation & Publication



Conference Paper Submission Requirements

Papers (maximum length five (5) pages) must be prepared in accordance with the procedures outlined in the PES Authors Kit, available on the PES web site (home page ieeepes.org) Full papers must be submitted to the on-line submission and review site (Papers identified as Part 1 and Part 2 papers will NOT be accepted). A link to the submission site will be available from the PES home page on 12 October 2021. All papers must be submitted by 10 November 2021. Authors will be advised via email of acceptance or rejection of the paper by 1–8 March 2022. If revisions are required, authors will be notified prior to that date. Up to approximately 800 out of the total number of conference papers submitted by the deadline will be accepted for presentation at the General Meeting.

Presentation of Conference Papers

The majority of accepted conference papers will be scheduled for presentation at the Monday evening poster session. Presentation of an accepted paper at the conference is a requirement of publication. Any paper that is not presented at the conference will not be included in IEEE Xplore.

Presentation of Select Conference Papers

The top 60 to 80 accepted conference papers will be selected to be presented in a Best Conference Paper Sessions on Monday afternoon. Author(s) will be allowed eight (8) minutes to present their paper and will be allowed to use a maximum of 6 PowerPoint slides, including the introductory slide. (Please note: No questions or discussion will immediately follow the presentations. The authors will be available for questions on their paper at the Monday evening poster session. Authors must prepare a poster for the session.) Authors will be notified if their papers are selected for this presentation. Up to 240 additional conference papers will be selected to be presented in Paper Forum Sessions on Tuesday through Thursday. Author(s) will be allowed four (4) minutes to present their paper and will be allowed to use a maximum of four (4) PowerPoint slides, including the introductory slide. A small poster session in the same room will immediately follow the presentations where the authors will be available for discussion on their paper. Authors must prepare a poster. Authors will be notified if their papers are selected for this presentation.

Prize Conference Paper

A few of the top 60 to 80 conference papers will be chosen and recognized as General Meeting Conference Prize Papers These papers and authors will be identified at the Monday night poster session and the authors will receive a letter of recognition.

Transactions Paper Presentations

An author of an accepted PES Transactions paper who is interested in presenting it at the 2022 PES General Meeting must upload the full paper, in addition to the paper's abstract, to the on-line submission and review site by the deadlines listed above. The appropriate Technical Committee Program Chair (TCPC) will determine if the topic of the paper is suited for presentation in one of the technical sessions. The author will be notified of the decision by e-mail. No more than 200 transactions papers will be chosen for presentation at the General Meeting. (Please note: The author must follow the steps on the review site and upload the full paper in addition to the abstract. This is for the TCPC's use only. The full paper will not be published in the Conference Proceedings. Do not upload the full paper as its own submission. It must be uploaded along with the abstract so there will be only one conference paper number.) Accepted Transactions papers that will be presented at the 2022 PES General Meeting will have their abstracts published in the Conference Proceedings.

Conference Registration

At least one author of each accepted conference paper or Transactions paper for presentation must register for the meeting and pay the appropriate fee. Conference papers, or Transactions paper abstracts, will not be released for publication in the 2022 PES General Meeting Proceedings or scheduled for presentation unless the fee is paid. Note: Registration deadline for authors may be earlier than the general registration deadline. Additional information about the meeting will be posted as it becomes available on the conference web site at pes-gm.org.

Panel Sessions

Panelists will not be required to write summary papers to participate in panel sessions. Only PowerPoint (PPT) presentations are required; they must be on the PES PPT template. Information on submitting PowerPoint presentations and the PES PPT Template will be provided to panelists closer to the meeting.

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