



IEEE ENERGY CONVERSION CONGRESS & EXPO PHILADELPHIA, PA, USA OCT. 19-23

IMPORTANT DATES

March 2nd, 2025

Digest Submission

May 25th, 2025

Author Notification

July 20th, 2025

Final Paper with
IEEE Copyright Forms

CALL for PAPERS

The Seventeenth Annual IEEE Energy Conversion Congress and Exposition (ECCE 2025) will be held in Philadelphia, Pennsylvania, USA, from October 19 to October 23, 2025. ECCE is a pivotal international event on energy conversion. ECCE 2025 will feature both industry-driven and application-oriented technical sessions as well as an exposition. The conference will bring together practicing engineers, researchers and other professionals for interactive and multidisciplinary discussions on the latest advances in areas related to energy conversion.

Technical papers are solicited on any subject pertaining to the scope of the conference including, but not limited to, the following major topics:

Component, Converter and Subsystem Technologies

- >> Innovative magnetic materials, alternative conductor and winding insulation technologies
- >> Passive components and materials
- >> Power conversion topologies, modulation, and control
- >> Power electronic devices, gate drivers and integrated circuits
- >> Power electronic packaging integration
- >> Reliability, advanced fault protection systems, diagnostics, prognostics, and health management
- >> Rotating/linear electromagnetic devices
- >> Thermal management and advanced cooling technologies
- >> Electromagnetic interference and electromagnetic compatibility
- >> Advanced manufacturing
- >> Cyber-physical security (CPS) for power electronics systems
- >> Digital twins, cloud design and simulation techniques for energy conversion systems

Energy Conversion Systems and Applications

- >> Renewable and alternative energy power electronics systems
- >> Critical power and energy storage systems
- >> Energy efficiency for commercial, industrial and transportation applications
- >> Aerospace energy conversion systems
- >> Big data and artificial intelligence in energy conversion
- >> Electric vehicles (EV) and charging infrastructure
- >> Off-grid solutions for energy access
- >> Energy conversion for information technology and communication systems
- >> Grid-forming technologies
- >> Wireless power transfer
- >> High power/voltage conversion systems (HVDC, FACTS and multi-terminal DC systems)
- >> Industrial motor drives
- >> Medical, IoT and energy harvesting
- >> Microgrids, hybrid ac and dc grids, dc grids
- >> Power electronics for agriculture
- >> Sustainable recycling for power electronics, electric motors and energy storages



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Digest Submission: Prospective authors are requested to submit a single column digest, according to the provided template, no longer than five (5) pages (including references) summarizing the proposed paper. The digest should include key equations, figures, tables, and references as appropriate, but no author names or affiliations. **Digests not conforming to these requirements will be rejected without review.** The digests must clearly state the objectives of the work, its significance in advancing the state of the art, and the methods and specific results in sufficient detail. All digests will go through a double-blind peer review process to ensure a confidential and fair review. The papers presented at the conference will be included in the IEEE Xplore Digital Library. Please refer to the conference website for detailed instructions regarding the digest submission and any future changes to the important dates.



www.ieee-ecce.org/2025



Contact email:

ecce2025tpc@gmail.com