

CALL FOR PAPERS



IEEE ENERGY CONVERSION CONGRESS & EXPO **Nashville, TN | OCT.29-Nov.2**

Important Dates



February 19, 2023

Digest submission deadline



May 15, 2023

Author notification



June 1, 2023

2 page Late Breaking
Research Briefs



July 23, 2023

Final papers submission
with IEEE copyright forms



IEEE

IAS
**IEEE INDUSTRY
APPLICATIONS
SOCIETY**
Linking
Research
to Practice



**IEEE POWER
ELECTRONICS SOCIETY**
Powering a Sustainable Future

The Fifteenth Annual IEEE Energy Conversion Congress and Exposition (ECCE 2023) will be held in Nashville, Tennessee, USA, from October 29 to November 3, 2023. ECCE is a pivotal international event on energy conversion. ECCE 2023 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, including new and emerging applications.

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



Energy Conversion Systems and Applications

- Renewable and alternative energy power Electronics systems
- Critical power and energy storage systems
- Aerospace energy conversion systems
- Grid-forming technologies
- High power/voltage power conversion (HVDC, FACTS and multi-terminal DC systems)
- Power-to-X and green hydrogen systems
- Microgrids, hybrid ac/dc grids, and dc grids
- Energy Access and off-grid systems
- Energy conversion for information technology and communication systems
- Electrification for commercial, industrial and transportation applications
- Big data and artificial intelligence in energy conversion
- Wireless power transfer
- Lighting applications and displays
- Industrial motor drives
- Medical, IoT and energy harvesting
- Power electronics for agriculture.

Component, Converter & Subsystem Technologies

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

GENERAL CHAIR

Brad Lehman

Northeastern University, USA

lehman@coe.neu.edu

GENERAL CO-CHAIRS

Olorunfemi Ojo

Tennessee Tech University, USA

Jean-Luc Schanen

Univ. Grenoble Alpes, France

ASSISTANT TECHNICAL PROGRAM CO-CHAIRS

Mahshid Amirabadi

Northeastern University, USA

m.amirabadi@northeastern.edu

Jose Fernando Jimenez

Universidad de Los Andes, Colombia

fjimenez@uniandes.edu.co

ECCE 2023 TECHNICAL PROGRAM CO-CHAIRS

Xiongfei Wang

Aalborg University, Denmark

xwa@et.aau.dk

Xiaonan Lu

Purdue University, USA

xiaonan.lu@ieee.org

Tanya Gachovska

MDA-Montreal, Canada

tgachovska@yahoo.com

Jin Wang

Ohio State University, USA

wang.1248@osu.edu

Minjie Chen

Princeton University, USA

minjie@princeton.edu

Vandana Rallabandi

Oak Ridge National Lab, USA

vandana.rallabandi@ieee.org



Digest Submission

Prospective authors are requested to submit a single column, 1.5-line spaced digest 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 a detailed list of technical topics and the digest submission method.

