



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

IMPORTANT DATES

March 2, 2025

Tutorial proposal due

May 25, 2025

Notice of Acceptance

July 20, 2025

Final Tutorial

Materials Due

CALL for TUTORIALS



ECCE is a pivotal international event on energy conversion. It brings together practicing engineers, researchers, and other professionals for interactive discussions on the latest advances in areas related to energy conversion.

The ECCE organizing committee invites proposals for tutorials to be presented at ECCE 2025. Each tutorial is three hours long, excluding break times. Each accepted tutorial will receive one conference registration together with an honorarium of \$1,000. Please note that publication of a technical paper will still require a paid full registration.

All tutorial proposals should be submitted via the ECCE 2025 web portal under “Call for Tutorials.” Please follow the Tutorial Proposal Form on the website as a submission template. The proposals will be reviewed by a panel of subject matter experts.

One or more of the following elements are strongly encouraged in the tutorial proposals:

- a) Application-focused sessions on tools or methods for practicing engineers
- b) ECCE 2025 topics relevant to the host city, e.g., smart mobility
- c) Collaborative cross-disciplinary topics, industry-led or co-hosted lectures
- d) Engaging topics and formats that effectively communicate with the audience and involve the attendees.

Tutorials considered less attractive to the audience include:

- a) Lectures that are not balanced between theory and application
- b) Tutorial topics or teams presented previously in immediate past ECCE
- c) Tutorials that narrowly focus on the presenter’s research that is already publicly available
- d) Solicitation of a particular product or service.

Potential topic areas include but are not limited to:

Energy Conversion Systems and Applications

- >> Renewable energy, including under-represented ocean-wave, tidal, and geothermal
- >> Smart grids, microgrids, nanogrids
- >> Electrical energy storage, and battery charging technologies
- >> Energy conversion for information and communications technology
- >> Energy harvesting and conversion
- >> Smart, energy-efficient buildings
- >> Energy efficiency for advanced manufacturing
- >> Big data and machine learning in energy conversion
- >> Digital twins for energy conversion systems
- >> Resilience and cybersecurity in energy conversion systems
- >> Transportation electrification
- >> HVDC and HVDC grids
- >> Power electronics dominated low-inertia grids, especially grid-forming strategies and protection

Energy Conversion Technologies & Components

- >> Power electronic devices and conversion topologies
- >> Modeling and control of power converters
- >> Electric machines and drives
- >> Passive components, magnetics, and materials—particularly for high frequency
- >> Packaging, integration, and advanced manufacturing
- >> EMI and EMC
- >> Thermal management and advanced cooling technologies
- >> Wireless power transfer
- >> High-voltage power conversion, including insulation technologies
- >> Design automation and optimization
- >> Reliability, diagnostics, prognostics, and health management
- >> Fault-tolerant converters, drives and systems
- >> Protection and advanced gate drives for converters

Others

- >> Pedagogy for undergraduate learning and online education innovations
- >> Entrepreneurship, technology transfer, business management
- >> Development and use of standards for specific applications

General Chair

Iqbal Husain

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Tutorial Chairs

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