



IEEE ENERGY CONVERSION CONGRESS & EXPO PHOENIX, ARIZONA, USA ☀️ OCT. 20-24

IMPORTANT DATES

March 8, 2024

Tutorial proposal due

May 24, 2024

Notice of acceptance

July 22, 2024

Final Tutorials Materials Due

Call for Tutorials



The 16th Annual IEEE Energy Conversion Congress and Exposition (ECCE 2024) will be held in Phoenix, Arizona, USA, from October 20 -24, 2024. ECCE is a pivotal international event on energy conversion. It will bring 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 2024. Each tutorial is 3 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 2024 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) Industry led or co-hosted lectures
- b) Interactive instructor-audience approaches, including hands-on demonstrations and practices
- c) Application focused session on tools or methods for the practicing engineer
- d) ECCE 2024 regionally oriented topics at the host city, e.g. smart mobility
- e) Collaborative cross-disciplinary topics and tutorial teams are welcome
- f) Topics that engage the audience in formats that serves to communicate with the attendees

Tutorials considered to be less attractive to the audience are:

- a) Topics that are too narrowly focused
- b) Lectures that are not balanced between theory and application
- c) Tutorial topics or teams presented previously in immediate past ECCE or other major IAS/PELS conferences
- d) Tutorials that narrowly focus on presenter's own research works that are already publicly available
- e) 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, geothermal
- ▶ Smart grids, microgrids, nanogrids
- ▶ Electrical energy storage, including real physics or controlled virtual storage
- ▶ 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
- ▶ Cybersecurity in energy conversion systems
- ▶ Transportation electrification, including aircraft and urban aerial mobility
- ▶ Battery charging technologies
- ▶ Resiliency in energy systems
- ▶ HVDC and HVDC grids

Others

- ▶ Pedagogy for undergraduate learning or under-represented groups
- ▶ Online education technology innovations
- ▶ Entrepreneurship, technology transfer, business management
- ▶ Development and use of standards for specific applications

Component, Converter & Subsystem Technologies

- ▶ Power electronic devices
- ▶ Power 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 and systems
- ▶ Protection and advanced gate drives for converters



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