ECCE 2022

IEEE ENERGY CONVERSION CONGRESS & EXPO — Detroit, Michigan, USA — Oct.9-13

Call for Special Sessions

IMPORTANT DATES

April 1, 2022
Special session proposal due

May 20, 2022
Notification of acceptance

July 1, 2022
Final session plan due

IEEE

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

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

General Chair
Emmanuel Agamloh
Baylor University, USA

Special Session Co-Chairs
Yue Cao
Oregon State University, USA

Sara Roggia
MagniX, USA

The 14th Annual IEEE Energy Conversion Congress and Exposition (ECCE 2022) will be held in Detroit, Michigan, USA, from October 9 to October 13, 2022. Special Sessions are solicited focusing on emerging technologies and industry-oriented topics. Industry and government organizers or speakers are of particular interest. Guest speakers will be invited on the day their session is scheduled. No written papers are required. Materials presented in the Special Sessions will not be included in the conference proceedings. Each session will be assigned either one or two 100-minute slot(s), subject to conference program scheduling.

Different session formats are solicited: 1) Formal presentations; 2) Informal talks with or without slides; 3) Full Q&A panel; 4) Debate; 5) Other creative or hybrid styles.

One or more of the following elements are strongly encouraged in the special session proposals: A) Significant industry or government involvement; B) Industrial application oriented; C) ECCE 2022 regionally oriented topics; D) Collaborative cross-disciplinary topics or teams; E) Creative formats that engage the audience, especially industry.

Factors considered as less attractive to the audience are: a) Non-emerging topics; b) Academic lectures; c) Similar teams with similar topics from the immediate past ECCE; d) Solicitation of a particular product or service; e) Unclear plans including unconfirmed speakers.

Potential topic areas include but are not limited to:

Energy Conversion Systems and Applications

- Transportation electrification, including EV, trucks, aircraft, UAV, trains, ships
- Energy storage systems, including real or virtual storage
- Charging stations, vehicle to grid
- Additive manufacturing
- Renewable energy integration
- Smart grids, micro-grids, nano-grids
- Resiliency in energy systems
- Smart and energy efficient buildings
- Energy conversion for information technology
- Big data and machine learning in energy conversion
- Cybersecurity in energy conversion
- Design automation and optimization

Components, Converters, and Subsystems

- Power semiconductor devices, magnetics, capacitances
- Power conversion topologies, modeling, and control
- Electric machines and drives
- Packaging, integration, and advanced manufacturing
- EMI and EMC
- Thermal management, advanced cooling technologies
- Wireless power transfer
- High voltage power conversion, including insulation technologies
- Reliability, diagnostics, prognostics, and health management

Others

- Advanced testing and validation, including demo
- Standards development
- Education and career development
- Entrepreneurship, technology transfer, business management
- Post-COVID technology innovations

Proposal Submission Guidelines: All special session proposals must be submitted via the ECCE 2022 web portal under "Call for Special Sessions". Please follow the Proposal Form on the website as a submission template. The proposals will be reviewed by a panel of subject matter experts.

---

www.ieee-ecce.org/2022 — Detroit, Michigan, USA – October 9–13, 2022

Format: Maximum 5 pages. All pages are formatted to 8.5x11" or A4 paper with margins of one inch on every side. All texts use single space, Times New Roman, and a font size of 11 or 12. *A Word template will be posted on the official website under Call for Special Sessions.*

Recommended Sections:

1. Special Session Title

2. Proposed Session Format

☐ Formal presentations ☐ Informal talks ☐ Full Q&A panel ☐ Debate

☐ Create own style – *see Call For Proposal.*

Describe the format at a high level, and note any creative activities such as software/hardware demonstration, virtual tours, interactive audience polls, etc.

3. Proposed Timing

☐ 100 minutes ☐ 2x100 minutes

4. Session Organizers
List name(s), title(s), affiliation(s), and email(s).

5. Session Speakers/Panelists
List names, titles, and affiliations. Clearly note each speaker's availability: choose "confirmed" or "tentative"; failure to do so will be treated as all tentative.

6. Abstract
No more than 500 words. Accepted abstract will be published through the conference website and program book.

7. Session Outline
Only list the proposed topics/titles/activities. No detailed descriptions necessary. Indicate time allocation and speaker breakdown, if possible.

8. Organizer Biography
No more than 200 words for each person. External website link can be included but may not be reviewed.

9. Speaker/Panelist Biography
No more than 200 words for each person. External website link can be included but may not be reviewed.