



IEEE ENERGY CONVERSION CONGRESS & EXPO

Vancouver, Canada  Oct. 10-14

## IMPORTANT DATES

**March 31, 2021**

Proposal submission deadline

**May 1, 2021**

Notification of session acceptance

**June 1, 2021**

Final session plan submission deadline



### General Chair

**Giovanna Oriti**

Naval Postgraduate School, USA

### Special Session Chairs

**Xiaonan Lu**

Temple University, USA

**Fei Ding**

National Renewable Energy Laboratory, USA

The Thirteenth Annual IEEE Energy Conversion Congress and Exposition (ECCE 2021) will be held in Vancouver, British Columbia, Canada, from October 10 to October 14, 2021. ECCE 2021 will bring together practicing engineers, researchers, and other energy conversion professionals for interactive and multidisciplinary discussions on the latest advances in the areas related to energy conversion.

**Special Sessions** are solicited focusing on emerging technologies and industry-oriented topics, featuring diversified formats including oral presentations, open panel discussions, debates, virtual factory tour and demo, etc. Industry hosted or co-hosted sessions are of particular interest, and audience participation is strongly encouraged. Note that commercialization content should be avoided, and no written papers are required for Special Session presentations. Materials presented in the Special Sessions are not subject to peer review and will not be made available in the conference proceedings. However, presenters are encouraged to distribute their presentations to the audience.

Potential topic areas include but are not limited to:

### Components and Converters

- ▶ Wide bandgap devices and their emerging applications in power electronics
- ▶ Artificial intelligence (AI) aided converter control and design
- ▶ Thermal management, and advanced cooling technologies
- ▶ Reliability, diagnostics, and prognostics of components and modular systems
- ▶ Electric machine design and motor drives
- ▶ Advanced technologies for power electronics such as materials, 3-D printing, magnets, magnetic devices, capacitors, switching devices, EMI/EMC, etc.

### Power Electronics Intensive Energy Conversion Systems

- ▶ Renewable energy systems, energy storage systems, and their integration into modern electric grids
- ▶ AC, DC, and hybrid micro-grids and nano-grids
- ▶ Power electronic based grid infrastructures: technologies, trend, and grid integration
- ▶ Resiliency enhancement and active stabilization of power electronics based power systems
- ▶ Transportation electrification, including electric vehicles, aircraft, ships, drones, etc.
- ▶ Cybersecurity in power electronic inverters and inverter dominated energy systems

### Others

- ▶ Advanced testing and validation, including controller/power hardware-in-the-loop testing, etc.
- ▶ Standard development for power electronics systems/products
- ▶ Power electronics education and research for under-represented groups
- ▶ COVID-related innovations with power electronics technologies

**Proposal Submission Guidelines:** Special Session organizers are requested to submit a maximum five-page proposal summarizing the proposed session plan. The proposal should indicate the session format and should contain the session title, session organizer, presenters or panelists (with short biography), abstract, etc. All proposals should be submitted via the ECCE 2021 website under "Call for Special Sessions".

[www.ieee-ecce.org/2021](http://www.ieee-ecce.org/2021)

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