



INTELEC 2025

Call for Tutorial Proposals

All conference registrants are welcome to attend the short courses and tutorials, which are in parallel with technical sessions, at no additional charge.

INFORMATION

Tutorials are expected to be 90 minutes in duration. Tutorials will be scheduled on October 12, 2025. The presenter/s of accepted tutorials will receive a free full registration (not including paper submission).

Proposals should include

- Tutorial Title
- A one paragraph bio for each instructor (max 150 words)
- Proposed short course / tutorial summary for evaluation. If accepted, a full short course / tutorial description will be required. Max 300 words.
- Name, affiliation, and e-mail contact for each of the proposed instructors



Potential topic areas include but are not limited to:

- Power converters, control, and other technologies for ICT infrastructure
 - Power supplies for telecommunication networks
 - Fast and efficient converters for 4G LTE, 5G systems and beyond
 - Air conditioning/cooling infrastructure for power and communication systems
 - Predictive and adaptive control strategies in power electronics for ICT infrastructure
 - Other relevant topics on ICTs including 5G small cells, Internet of Things (IoT), etc.
- Data center power management
 - Highly efficient AC-DC and DC-DC converters for data center power distribution
 - Integration of renewable energy, energy storage, and backup systems for data centers
 - Thermal management and efficiency optimization of cooling systems
 - Power systems for data centers or thermal management in quantum computing, AI infrastructure, crypto mining, and other modern applications
 - Other topics on data centers, including digital twins and fault handling
- Energy storage for grid, communication, and transportation systems
 - Integration of renewable energy resources (solar PV, wind turbines, etc.) with energy storage systems for islanded and grid-connected applications
 - Energy storage system architectures for grid, transportation, and communication
 - Optimal energy storage system design for optimal energy management
 - Power converters for energy storage systems using batteries, hydrogen, SMES, etc.
 - Battery management systems, monitoring, and health enhancement
 - Other electrical topics on novel and advanced energy storage systems
- Power converters in subsea and downhole energy applications
 - Novel power distribution systems and elements for subsea as well as offshore energy
 - Converters and associated technologies for high temperature and high pressure applications such as subsea and downhole
 - Power distribution for critical and niche applications including CO2 storage, geothermal energy, reservoir characterization, geological hydrogen, etc.
 - Sensing systems, IoT, AI, and predictive maintenance in subsea and downhole converters
- Critical power for aerospace and extraterrestrial systems
 - Highly available power systems, including generation sources, for space applications considering extreme temperatures, radiation, power density, etc.
 - Extreme environment-capable energy storage systems for extraterrestrial systems
 - Critical power systems in electric aircraft and satellites
 - EMI/EMC and fault handling in aerospace applications
 - Other topics on critical aerospace power applications
- Resilient, reliable, and highly available infrastructure for mission-critical applications
 - Power supplies for medical applications such as MRI machines and implants
 - AI-assisted operation and life-cycle support in safety-critical systems
 - Fault protection and planning approaches in resilient power and ICT infrastructure
 - Forensic performance studies of power grids and ICT networks during disruptive events
 - Converters for critical pulsed power and RF applications such as radar, plasma
 - Other topics on system resiliency that do not fall under any of the above areas

If you are interested in giving a tutorial at INTELEC, please submit your proposal through the following link: <https://2025.ieee-intelec.org/tutorial-proposal-submission/>

If you have any questions, feel free to contact the Conference Tutorial Chairs, Joseph Kozak (joseph.kozak@jhuapl.edu) and Irfan Khan (irfankhan@tamu.edu).

The deadline for the submission is 30 March 2025.

