CALL FOR PAPERS

IEEE International Communications Energy Conference (INTELEC) 2024
Powering Information and Communication Technologies (ICT) for a Billion Lives

Announcement

The 41st edition of INTELEC® will be held in **Bengaluru, India** from **4th to 7th August, 2024.** Bengaluru, known as the Silicon Valley of India, is the technology hub of the country and home to a large number of start-ups, technology companies, research laboratories and academic institutes. It is also known for its lush-green parks and bustling night life. Being the world's second largest both in terms of telecommunication network and number of internet users, India has the dream to connect all her 1.4 billion citizens with reliable and resilient networks.

INTELEC® 2024 continues to be the world-class technical and information exchange forum that deals with critical power and energy storage applications including information and communications technology networks, power distribution, renewable energy generation, and transportation electrification. These topics will be addressed by the global technical and commercial leaders from industry and academia. Several keynote, plenary, oral and poster sessions will be organized to present and discuss the latest state-of-the-art technology in the aforementioned areas. The participants will also have the exceptional opportunity to attend an exhibition where the industry leaders will showcase, demonstrate, and discuss their latest products and technologies.

Important Dates

October 15, 2023: Opening of digest submission portal

January 14, 2024: Deadline for digest submission

March 14, 2024: Notification of acceptance

May 15, 2024: Deadline for final paper submission

Papers presented at the conference will be submitted for possible publication in IEEE Xplore

The authors of selected papers will be encouraged to submit an extended version for publishing in journals of the IEEE Power Electronics Society.

Please visit www.intelec2024.org for more details

The scope of the conference will include but not limited to the following communications power and energy system topics:

Power electronic converters for ICT networks

- Circuit Topologies and control techniques for AC/DC, DC/DC, AC/AC and DC/AC power converters
- Utility interface inverters for energy generation and storage
- Power quality, UPSs, filters
- High-efficiency and high-density power supplies

Power systems for critical applications

- Renewable and alternative energy integration (Wind, PV, Hybrid, etc.)
- Microgrids: Islanded and grid-connected autonomous power systems
- Power distribution architectures for communications equipment
- Data center power system design and implementation
- Power for 5G wireless communication networks and beyond
- Power for communications edge network elements
- Control and operation of power plants for critical applications including the use of artificial intelligence tools
- Wireless power transfer for handheld communications devices

Integrated operation and control of power convertors for ICT infrastructures

- Power architecture and implementation of smart buildings with communications systems
- Integrated operation and energy management in communication networks
- Electric Vehicle integration into smart buildings
- Renewable systems/battery and other energy storage integration
- Grid interaction applications

Energy storage for communications systems

- Architectures for energy storage
- Energy management techniques
- Batteries and associated interface circuitry
- Energy storage technologies
- Storage system modelling and simulation
- Advanced storage systems (hydrogen, fuel cell, etc.)

Resilient, reliable, and highly available power infrastructure for mission critical applications

- Resilient, reliable, and highly available design and operation of power systems for critical loads
- Planning approaches for resilient power and ICT infrastructure
- Forensic engineering studies of power grids and ICT networks performance during disruptive events
- Reliability, fault-protection, diagnostics, prognostics and health management in communication systems
- Additional contributions to critical power and energy storage (healthcare, finances, security, industrial, off-shore and downhole applications, etc.)

Infrastructure for Communications Systems

- Physical and thermal design
- Power converter components and packaging
- Air conditioning and efficient operation of data centers and other critical load facilities
- Grounding and EMC
- Cyber-physical architecture in communication systems

Critical Power for Electric Transportation

- Vehicular power electronic circuits and systems
- Power electronics for hybrid and electric vehicles
- Power electronics for fuel cell and hydrogen-powered vehicles
- Power electronics for aerospace
- Charging systems

Submission Guidelines/Requirements: Prospective authors are requested to submit a digest summarizing the background, novelty, technical contribution and major results of their work. Papers, presented at INTELEC, must be original and have not been previously presented or published. The principal criteria in digest selection will be the usefulness of the work to the practicing power electronic professional and the scope. Reviewers value the evidence of completed experimental work. Authors should obtain any necessary company and governmental clearance prior to submission of digests. Please avoid significant commercial content in the paper.

Please visit-**www.intelec2024.org/call-for-paper.php** for sub-track details

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Conference Venue

JW MARRIOTT HOTEL BENGALURU

Discover the subtle luxury and exceptional convenience of JW Marriott Hotel Bengaluru. Situated within Bengaluru's Central Business District, 5-star hotel sits just minutes from the green gardens of Cubbon Park and the shops of UB City Mall. Find us near Mahatma Gandhi Road, the popular neighborhood of Koramangala and other top attractions in Bengaluru. Take advantage of luxury hotel amenities like well-equipped 24-hour fitness center, scenic outdoor pool, tranquil spa and many on-site restaurants. At the end of the day, retreat to a luxury hotel room or suite in Bengaluru with stylish décor, plush bedding, marble bathrooms and private balconies. Expect unforgettable experiences at JW Marriott Hotel Bengaluru.

For further information contact secretariat@intelec2024.org