



About the Conference

The 12th National Power Electronics Conference (NPEC 2025) will be held at NIT Calicut, Kerala, India, from December 14 to 16, 2025. NPEC, a biennial conference, is a leading forum for power electronics research in India, bringing together experts from academia and industry.

The conference features plenary talks, panel discussions, tutorials, and paper presentations, showcasing advancements in industrial, domestic, commercial, mobility, and utility applications. Technical sessions by industry experts will highlight key challenges and foster innovative solutions.

Since its inception at IIT Bombay in 2003, NPEC has been hosted by IIT Kharagpur (2005), IISc Bangalore (2007), IIT Roorkee (2010), IEST Shibpur (2011), IIT Kanpur (2013), IIT Bombay (2015), CoE Pune (2017), NIT Tiruchirappalli (2019), IIT Bhubaneswar (2021), and IIT Guwahati (2023), fostering collaboration and knowledge exchange among power electronics professionals.

Call for Papers

Prospective authors are invited to submit their original full papers (maximum 6 pages in IEEE template) in PDF format. Authors are encouraged to provide experimental validation of theoretical concepts.

The conference is technically supported by IEEE, including the IEEE Industrial Applications Society, Industrial Electronics Society, and IEEE Power Electronics Society.

All accepted and presented papers will be submitted to the IEEE Xplore Digital Library. Additionally, 20% of the presented papers may be considered for further review for publication in IAS periodicals (Transactions, Magazine).

For more details, visit: www.npec2025.com.

Plenary Talks and Tutorials

Plenary sessions aim to bring together all conference attendees to engage with distinguished speakers who address key themes, emerging trends, and transformative ideas in the field. Detailed information about plenary speakers and sessions is available on the conference website.

Tutorials are intended to disseminate information on recently emerging topics and trends to conference attendee. The proposal form and detailed information about the tutorial are provided on conference website.

Conference Venue

The conference will be held at the NIT Campus, NIT Calicut. Located on a sprawling 125-hectare campus amidst the serene Western Ghats, NIT Calicut is about 22 km from Kozhikode city. The lush greenery and tranquil environment make it an inspiring venue for academic and collaborative engagements.



TECHNICAL TRACKS

Power Converter Topologies and Devices

- Power Devices, Components and Magnetic Materials
- Modelling, Control and Stability
- Gate Drivers, EMI, EMC and Protection
- Advanced Topology
- Efficiency and reliability
- Fault tolerant converter
- AI & Machine Learning Applications in Power Converters

Electric Mobility and Transportation

- Power Electronics for Hybrid and Electric Vehicles
- Vehicles Power Electronics Circuit and System
- Charging System and Standards
- Small, Medium and Long-range wireless power transfer

Power Flow Control and Power Quality

- Modeling and Control
- System Integration
- Distributed Generation and Grid Interconnection
- FACTS devices
- Power Quality conditioners, HVDC Converters & Control

Power Electronics for Renewable Energy

- Distributed Energy System
- Wind and Solar PV systems, Fuel Cells
- Grid Integration and Policy issues
- Bidirectional Power Converters
- Solid state transformer
- Microgrids and Hybrid grids

Energy Storage Systems

- Integration of storage with Solar/Wind Energy Systems
- Battery, Supercapacitors and Fly wheel
- Energy management system
- Integration of Energy Storage Systems
- Biomass, Hydrogen based Sources

Electrical Machines, Drives and Control

- Advanced Control of Drives
- Design, Optimization and Condition Monitoring of Electrical Machine
- AC, DC, BLDC Drives, Reluctance Machine Drives
- Actuator, Sensor Integration
- Design Automation for Power Converters

Important Dates

Start of Paper Submission	: 15th Feb., 2025
Paper Submission Deadline	: 31st July, 2025
Paper Acceptance Notification	: 30th Sep., 2025
Submission of Camera-Ready Paper	: 31st Oct., 2025

12TH NATIONAL POWER ELECTRONICS CONFERENCE NPEC 2025 14-16, DEC 2025

EXPLORE AND DISCOVER

KERALA

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SPOTS NEAR NIT CALICUT

KAPPAD BEACH

A historic beach where Vasco da Gama landed in 1498, featuring tranquil waters, nesting grounds for sea turtles, and nearby cultural and historical sites.



S.M. STREET, CALICUT

S.M. Street, also known as Sweetmeat Street or Mittai Theruvu, is a busy shopping street in Kozhikode, Kerala, India. It's a popular destination for locals and tourists alike



WAYANAD

Wayanad is a scenic plateau in the Western Ghats of Kerala, India. It's known for its natural beauty, wildlife, and spice plantations.



THUSHARAGIRI WATERFALLS

Thusharagiri Waterfalls is a series of three waterfalls in the Western Ghats of Kerala, India. The falls are known for their scenic beauty, tranquility, and adventurous appeal.

KADALUNDI BIRD SANCTUARY

Scenic islands with migratory birds, panoramic hill views, and playful otters in serene surroundings. A haven for over 60 different species of migratory birds, the Kadalundi Bird Sanctuary is a paradise for bird watchers.



CONTACT US

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