



NPEC2025

14th to 16th December 2025
NIT Calicut, India



IEEE POWER ELECTRONICS SOCIETY
Powering a Sustainable Future



IEEE INDUSTRY APPLICATIONS SOCIETY

Linking Research to Practice



Call for Paper

The 12th National Power Electronics Conference (NPEC 2025) will be held at the National Institute of Technology Calicut, Kerala, India from 14th to 16th December 2025. The NPEC, held once in two years, is a conference of power electronics forum in India that focuses on disseminating potential research findings in industries and academia. It features extensive exposition on power electronics through plenary talks, panel discussions, tutorials, paper presentations, etc. This conference will be a launch pad for researchers to exhibit the influence of power electronics on various applications viz. industry, domestic, commercial, mobility, and electric utility systems. Technical sessions by industrial experts will bring out the recent challenges faced in the industry, providing an opportunity for inspirational minds to solve them.

The NPEC was first organized at IIT Bombay in 2003 and subsequently at 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) to enhance the interaction of the peers in the field of power electronics.

Paper Submission Guideline

Prospective authors are invited to submit their original full paper (maximum 6 pages in IEEE template) in PDF format. Authors are encouraged to provide experimental verification of the theoretical concepts. The conference is technically supported by IEEE, IEEE Industrial Application Society, Industrial Electronics Society, and IEEE Power Electronics Society. All the accepted and presented papers shall be submitted to IEEE Xplore Digital Library. 20% of the presented papers might be eligible for further review to be published in the IAS periodicals (Transactions, Magazine). For further details, please visit the conference website www.npec2025.com.

Plenary Talks

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

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.

Important Dates

Start of Paper Submission	:15 th Jan.,2025
Paper Submission Deadline	:15 th July,2025
Paper Acceptance Notification	:15 th Sep.,2025
Submission of Camera- Ready Paper	:15 th Oct.,2025

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

<p>Power Converter Topologies, Components and Devices</p> <ul style="list-style-type: none"> ➤ 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 <p>Electric Mobility and Transportation</p> <ul style="list-style-type: none"> ➤ 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 <p>Power Flow Control and Power Quality</p> <ul style="list-style-type: none"> ➤ Modeling and Control ➤ System Integration ➤ Distributed Generation and Grid Interconnection ➤ FACTS devices ➤ Power Quality conditioners, HVDC Converters & Control 	<p>Power Electronics for Renewable Energy Systems</p> <ul style="list-style-type: none"> ➤ 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 <p>Energy Storage Systems</p> <ul style="list-style-type: none"> ➤ 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 <p>Drives and Control</p> <ul style="list-style-type: none"> ➤ 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
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Contact Details

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