



IEEE 25-27 NOV
P I I C O N 2022
 10TH POWER INDIA INTERNATIONAL CONFERENCE

2022 IEEE 10th POWER INDIA INTERNATIONAL CONFERENCE
NOVEMBER 25 - 27, 2022

Recent Advancements in the area of Electrical Engineering,
 Decarbonisation of Grid and EV Infrastructure.

Organized by National Institute of Technology, Delhi, India

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IEEE PES-IAS Delhi Chapter
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VENUE

National Institute of Technology Delhi
 Plot No. FA7, Zone P1, GT Karnal Road,
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About NIT Delhi

National Institute of Technology Delhi (NITD) is one of the thirty one NIT (s) established in the year 2010 by an act of parliament and has been declared as an Institute of National importance. NIT Delhi is an autonomous Institute which functions under the aegis of Ministry of Education, Government of India.

Paper Submission

The authors have to submit the full paper in the IEEE double-column format (<https://www.ieee.org/conferences-publishing/templates.html>), restricted to a length of six pages. Link for paper submission (<https://edas.info/N29602>) Last date for paper submission: 10th September 2022. Detailed instructions and guidelines regarding paper Submission are available at the URL: www.piicon2022.com.

All papers presented in the conference will be submitted to the IEEE Xplore for possible inclusion and all the presented papers will be eligible for further review to be published in the IEEE Transaction on Industry Applications or IEEE IAS Magazine.

About PIICON

Power India International Conference 2022 – PIICON 2022, under the aegis of IEEE PES-IAS Delhi Chapter as well as IEEE PELS-IES Delhi Chapter, the 10th in the series will be held from 25 – 27 November 2022 at NIT Delhi, India.

The theme of the conference is ‘Recent Advancements in the area of Electrical Engineering, Decarbonisation of Grid and EV Infrastructure’. With a variety of events like plenary sessions, keynote addresses by reputed academicians, tutorials, workshops, Student Paper contests, industry exhibits and stalls and most importantly, high quality presentations from the best of the researchers in India, no effort is being spared to make the 10th edition of PIICON, the best so far. The conference PIICON 2022 provides an opportunity for researchers, academicians, scientists and professional engineers to present their work, publish their results, exchange ideas and network for scientific and industrial collaborations. The emphasis will be on peer-reviewed papers with high technical quality. The selected papers will be published in the conference proceedings and will be made available on IEEEExplore®.

The proposed conference IEEE Power India International Conference (PIICON-2022) is in its 10th edition and before that it has been successfully organized by premier institutes, like IIT Delhi, DTU Delhi, DCRUST Murthal, NIT Kurukshetra and EC Bikaner etc. . . under the aegis of IEEE PES-IAS Delhi chapter as well as IEEE PELS-IES Delhi Chapter as financial sponsors of the conference. The earlier editions were also technically sponsored by IAS, PELS, PES.

Important Dates

- Call for paper - June 1, 2022
- Full Paper Submission - Aug-31 Sep 10, 2022
- Acceptance Notification - Sep 30, 2022
- Camera Ready Paper Submission closes - Oct 15, 2022

Registration Fees

| | STANDARD | |
|---|--------------|------------------|
| | IEEE MEMBERS | NON IEEE MEMBERS |
| STUDENT AUTHORS (INR) | 3500 | 4500 |
| ACADIMIC INSTITUTION DELEGATES (INR) | 7000 | 9000 |
| INDUSTRY/ UTILITIES/ R&D PROFESSIONAL (INR) | 10000 | 12000 |
| INTERNATIONAL AUTHORS (USD) | 250 | 300 |

Grid Decarbonization and Integration of Renewable Energy Systems

- Environmental issues and relations.
- Renewable Energy Based Systems.
- Operational metrics for a Decarbonized Grid.
- Low-Carbon Emission using Smart Grid Technologies
- Zero Carbon System.
- Integration of Solar PV into buildings and infrastructure.
- Integration of Distributed Resources.
- Photovoltaics Systems and Solar Energies Engineering.
- Wind Energy Generation.
- Small Hydro generation Systems.
- Energy Harvesting for Communication Systems.
- Future Challenges and Directions for Grid Decarbonization.
- Issues in Grid Integration of Renewables.
- Reliability and resilience considering a changing relationship between the bulk power system and distribution systems.
- Low inertial power system operation, management and planning.

Power and Energy Engineering

- Power Systems Operation and Control.
- Renewable Energy Based Systems.
- Power System Reliability.
- Power Systems Stability and Control.
- Power System Protection.
- Power System Protection.
- Planning and Operation under Deregulated Conditions.
- Restructuring of Power System.
- Control Applications to Power Systems.
- Fault Monitoring and Predictive Maintenance.
- Blackouts: Analysis, Prevention & Control.
- Wide Area Monitoring and Control.

Data Analytics & AI Application for Power Systems

- Machine learning applications in power systems.
- Big data analytics in energy systems.
- Blockchain applications in smart grid.
- IoT Infrastructure for energy management in power system.
- Advanced Metering Infrastructure.
- Cyber & Physical Security of the Power Grid.
- Home Automation.
- Intelligent monitoring and outage management.
- Applications of Heuristics and Metaheuristics in Power Systems.
- Generation, Load & Price Forecasting.

Transportation and Energy Storage

- Plug-in vehicles and low-carbon transportation alternatives.
- Power Electronics and motor control for EV Applications.
- Charging methods, systems and standards.
- G2V and V2G applications.
- Railway Traction applications.
- Battery use and reuse.
- Large-Scale Energy Storage.
- Wireless Charging Systems.
- Battery Management Systems.

Grids, Smart Grids, Microgrids and AC & DC

- Role and Operation in Grids and Microgrids.
- Smart grids.
- Micro, Nano & Pico Grids.
- Power quality issues and power factor correction techniques.
- 6DC grids including fault coordination and protection.
- Hybrid DC circuit breakers (DCCBs).
- HVDC & FACTS.

Power Electronics Components and their Apps

- Power Electronics and Drives.
- Power electronics converters and systems.
- Modular Multilevel Converters.
- Standard and advanced PWM techniques.
- Condition Monitoring.
- Electrical Machines.
- Industrial Automation and Control.
- Automatic and AI based Control
- Nonlinear Control
- Mechatronics and Embedded Systems

Energy Managements, Electricity Market and Policy/ Regulatory Aspects

- Electricity Market and Power System Economics.
- Grid Flexibility, Resiliency & Security.
- Demand Side Management.
- Policies for Distributed Generation.
- Distribution Network Management.
- Electricity Trading and Risk Management.
- Energy Policy, Governance and Regulations.
- Flexing India's Energy System through Market Mechanisms
- Economic, social and environmental policy aspects

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