# 2nd International Conference on Sustainable Technology for Energy and Power Systems 2026 (STEPS 2026)

**IEEE Technically Sponsored 2nd International conference on STEPS 2026, NIT Srinagar**

To Be Organized
In-person and Online (Hybrid Mode) by
National Institute of Technology Srinagar, India
DoC: March 27-29, 2026

*National Institute of Technology Srinagar, India, is going to organize the 2nd International Conference on Sustainable Technology for Energy and Power Systems (STEPS 2026) with technical support from IEEE, USA. The first version of the conference (STEPS 2022) held at the National Institute of Technology (NIT) Srinagar in 2022 was an exceptional gathering of minds dedicated to advancing the field of power and energy systems. STEPS 2026 under the prestigious IEEE banner, will provide a dynamic platform for scholars, industry professionals, and students to engage in fruitful discussions, share cutting-edge research findings, and explore innovative solutions aimed at fostering sustainability in energy practices. With a diverse program featuring keynote speeches, technical paper presentations, panel discussions, and workshops, STEPS 2026 will cover a broad spectrum of topics ranging from renewable energy integration to cyber security in energy systems. Renowned experts from across the globe will offer invaluable insights into the challenges and opportunities facing the sustainable energy landscape, inspiring attendees to contribute towards a more resilient and eco-friendly future.*

**The conference proceeding of the STEPS 2026 will be published and available in the "IEEE XPLORE"**

## About Institute:

*National Institute of Technology, Srinagar, is one of the premier Educational Institutes in the Northern Regions of the country. The institute was established in 1960 and has been one of the Eighteen Regional Engineering Colleges sponsored by the Govt. of India during the 2nd Plan. The Institute later acquired the status of a National Institute of Technology, which was deemed university status, and attained full autonomy in its academics. The Institute is situated near Dal Lake, with the Hazratbal Shrine on the other side of the campus. NIT Srinagar is a residential institute with accommodation facilities in hostels and staff quarters. The Institute offers undergraduate and postgraduate programs, as well as opportunities for Doctoral level research.*

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## About IEEE Delhi Section:

*The Delhi Section of IEEE, a key component of the Asia-Pacific Region, encompasses the entirety of northern India, covering states such as Rajasthan, Haryana, Punjab, Himachal Pradesh, the National Capital Territory of Delhi, and the Union Territories of Chandigarh, Jammu & Kashmir, and Ladakh. Established in 1976, the Section has grown from its inception as a Sub-section to a thriving hub with thousands of active members. Members represent diverse categories, including Associate Members, Fellows, Graduate Student Members, and more. The Section oversees two Subsections in Chandigarh and Rajasthan, in addition to several Technical Society/Council Chapters, covering a wide spectrum of disciplines within Electrical and Electronics Engineering. These include Circuits and Systems Society, Control Systems Society, and Computer Society, promoting collaboration and knowledge exchange among professionals. Furthermore, the Section supports several Affinity Groups, including Women in Engineering (WIE), Young Professional (YP), Consultants Network (CN), and Life Member (LM), fostering a sense of community and inclusivity. Additionally, it manages numerous Student Branches and branch chapters across educational institutions in the region, facilitating academic and professional growth among students. In pursuit of its mission, the IEEE Delhi Section, independently or in collaboration with affiliated Chapters and local institutions like IET (UK), IETE, and IE (India), leads various initiatives. These include organizing technical talks, seminars, conferences, and workshops to disseminate knowledge, foster networking opportunities for professionals, and support Student Branches through academic events such as paper contests and quizzes. Through these efforts, the IEEE Delhi Section plays a vital role in advancing the field of Electrical and Electronics Engineering and nurturing the next generation of professionals.*

## About IEEE:

*The IEEE (Institute of Electrical and Electronics Engineers) is a global organization dedicated to fostering technological innovation and excellence for the betterment of humanity.*

- *Mission: To cultivate technological innovation and excellence to serve the greater good of humanity.*
- *Vision: To be indispensable to the worldwide technical community, universally acknowledged for the pivotal role of technology and technical professionals in enhancing global conditions.*
- *Trust: IEEE is committed to being a reliable and impartial source of technical knowledge and a platform for collaborative dialogue.*
- *Growth and Nurturing: IEEE encourages education as a fundamental pursuit for engineers, scientists, and technologists at all levels, ensuring a continuous pipeline of students to sustain the profession.*
- *Global Community Building: IEEE fosters dynamic and honest exchanges among diverse global communities of technical professionals, transcending disciplinary boundaries.*
- *Partnership: IEEE values and respects the contributions of its members and volunteers at every level, investing in their training and development to empower them to make meaningful contributions.*
- *Service to Humanity: IEEE harnesses the power of science, technology, and engineering to advance human welfare, promoting public awareness and appreciation of the engineering profession.*
- *Integrity in Action: IEEE promotes a culture of professional integrity and ethical conduct, upholding the exemplary behaviour and volunteerism of engineers and scientists.*

### Advisory Committee

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Dr. Akhilesh Mathur, MNIT Jaipur

Dr. Hareesh, NIT Srinagar

# 2nd International Conference on Sustainable Technology for Energy and Power Systems 2026 (STEPS 2026)

## Call for Papers:

*The International Conference on Sustainable Technology for Energy and Power Systems 2026 (STEPS 2026) serves as a leading international platform for presenting high-quality research in the fields of power and energy. Researchers, developers, and practitioners from academia and industry are invited to share their findings on various aspects of electrical energy and its applications.*

*Accepted papers that meet IEEE Xplore's standards for scope and quality will be published in the IEEE Xplore Digital Library. Original contributions based on innovative research and development are highly encouraged.*

*Prospective authors are requested to submit their papers using easychair Platform, adhering to the IEEE two-column format, with a maximum length of six pages. For formatting guidance, please refer to the IEEE Conference Templates . STEPS 2026 welcomes original, unpublished technical papers across all areas of power and energy, with a primary focus on the following tracks:*

***Submit your paper: https://easychair.org/conferences?conf=steps2025***

***All accepted and Presented papers will be submitted to IEEE Xplore Digital Library.***

## Track 1: Power and Energy Transformation and Utilization

- ✓ *Power grid infrastructure planning and Operation under Deregulated Conditions*
- ✓ *Power Systems Operation and Control*
- ✓ *Power System Planning and Reliability*
- ✓ *Power Systems Stability and Protection*
- ✓ *Control Applications to Power Systems*
- ✓ *Fault Monitoring and Predictive Maintenance*
- ✓ *Wide area interconnected clean energy highway*
- ✓ *Energy management system*
- ✓ *Blackouts: Analysis, Prevention & Control*

## Track 2: Power Converters: Design and Implementation

- ✓ *Topological development of power electronic converters*
- ✓ *Design, development, and modelling of power electronic converters*
- ✓ *Design consideration for power electronic converters in distributed generation*
- ✓ *Advanced topologies for electronically coupled energy generation sources*
- ✓ *Power converter topologies for electric vehicle applications*
- ✓ *Multilevel inverter topologies and design aspects*
- ✓ *EMI and EMC issues in power electronic systems*
- ✓ *Packaging of devices and thermal issues*

## Track 3: Renewable Energy Integration and Control

- ✓ *Compliance of grid interconnection rules (IEEE 1547-2018)*
- ✓ *Seamless transition of Microgrid from GC to SA under electrical anomalies*
- ✓ *Power electronic system for ancillary services support*
- ✓ *Advanced current and voltage controllers technology for power converter operation*
- ✓ *Integration of hybrid system with the utility grid*
- ✓ *Integration of electric vehicle and other renewable sources with smart grid*
- ✓ *Multifunctional inverter control for renewable applications*
- ✓ *Application of Artificial Intelligence (AI) techniques for efficient micro-grid operation*
- ✓ *Real-time and Hardware-in-the-Loop (HIL) simulation of power converters*

## Track 4: Power Electronics in Transportation and Vehicle systems

- ✓ *Power Electronics and Motor Control for EV Applications*
- ✓ *EV charging methods and standards*
- ✓ *Battery modeling and parameter estimation techniques*
- ✓ *Modeling, Analysis and Design of Rotating and Linear Machines*
- ✓ *Wireless Charging, G2V and V2G Applications*

- ✓ *Plug-in Electric vehicles (bicycle, car, bus, train, autonomous vehicles)*
- ✓ *Grid infrastructure for hosting electric vehicle fleets*
- ✓ *Hybrid electric vehicles*
- ✓ *Aircraft, Space Railway and Traction Applications*
- ✓ *Intelligent Transportation System*

## Track 5: Smart Grids/Microgrid Planning, Operation and Analysis

- ✓ *Smart grid and microgrid planning and operation*
- ✓ *Grid congestion and uncertainty management*
- ✓ *Transient stability studies of low-inertia power systems*
- ✓ *Distribution and transmission coordination*
- ✓ *Intelligent protection and control strategies*
- ✓ *IEC 61850 and substation digitalization*
- ✓ *ICT and Cyber-security*
- ✓ *Smart grid interoperability and standards*
- ✓ *Mini, Micro, and nano grid*

## Track 6: IoT and AI for Energy Technologies

- ✓ *Application of machine learning for predictive maintenance in power electronic devices*
- ✓ *Health monitoring of capacitors, inverters, and other critical components using AI*
- ✓ *AI and ML applications in optimizing the integration of renewable energy sources*
- ✓ *AI, Machine learning, data science, and IoT for energy enabling technologies*
- ✓ *Application of 5G and new communication technologies for smart grids*
- ✓ *Digital transformation in power sector*
- ✓ *Smart homes and smart buildings*
- ✓ *Supercomputing and quantum computing in smart grid*
- ✓ *Digital twin, real-time simulations, multi-domain co-simulation*
- ✓ *Forecasting for renewable energy sources*

## Track 7: Energy Management, Electricity Market, and Policy/ Regulatory Aspects

- ✓ *Electricity Market and Power System Economics*
- ✓ *Regulatory frameworks and policies*
- ✓ *New business models and transactive platforms*
- ✓ *Demand response flexibility and demand side management*
- ✓ *Local energy communities, prosumers, aggregators, and microgrids*
- ✓ *Energy Policy, Governance and Regulations*
- ✓ *Electricity Trading and Risk Management*

## Track 8 - Control Systems and Robotics

- ✓ *Autonomous Systems*
- ✓ *Autonomous Vehicles*
- ✓ *Unmanned Aerial Vehicles (UAVs)*
- ✓ *Autonomous Navigation*
- ✓ *Mathematical Modelling*
- ✓ *Robotics and Automation*
- ✓ *Industrial Robotics*
- ✓ *Robotic Manipulation*
- ✓ *Human-Robot Interaction*
- ✓ *Control Theory and Applications*
- ✓ *Adaptive Control*
- ✓ *Nonlinear Control*
- ✓ *Robust Control*

## Keynote Speakers:

**Prof. (Dr.) Anurag Srivastava**

Department of Computer Science and Electrical Engineering,

West Virginia University, USA

**Prof. (Dr.) B. K. Panigrahi**

Department of Electrical Engineering,

Indian Institute of Technology Delhi

**Prof. (Dr.) Prerna Gaur**

Department of Electrical Engineering,

Campus Director - West Campus, NSUT, Delhi

Chair-person the IEEE India Council

**Dr. Dheeraj K. Khatod, Associate Professor**

Department of Electrical Engineering,

Indian Institute of Technology Roorkee

## Important Dates

| | |
|---|---|
| **Notification of Paper Submission** | **September 15, 2025** |
| **Paper Submission Deadline** | December 15, 2025 |
| **Notification of Paper Acceptance** | February 15, 2026 |
| **Camera-ready Paper Submissions** | February 28, 2026 |
| **Early Birds Registration** | March 10, 2026 |

## Registration Details and Other Information

**For more Details please visit STEPS 2026 official website: https://steps2026.vercel.app/**

| Category | Registration Fee Details | |
|---|---|---|
| | IEEE Member | Non-IEEE Member |
| **Indian Student (UG/PG/PhD) Author** | ₹ 9,500/- | ₹ 10,980/- |
| **Indian Author (Academia)** | ₹ 10,000/- | ₹ 12,200/- |
| **Indian Professional Author (Industry)** | ₹ 13,000/- | ₹ 15,860/- |
| **Foreign Author** | $ 250/- | $ 305/- |
| **Indian Student (UG/PG/PHD) Non-Author** | ₹ 6,000/- | ₹ 7,320/- |
| **Indian Non-Author (Academia)** | ₹ 8,000/- | ₹ 9,760/- |
| **Indian Professional Non-Author (Industry)** | ₹ 10,000/- | ₹ 12,200/- |
| **Foreign Non-Author** | $ 200/- | $ 244/- |

**NOTE:** Each Authors of Same Paper Should Be Registered Individually. Authors and Attendees who register after the due date has to pay 10% extra.

Submit your paper: https://easychair.org/conferences?conf=steps2025

Paper template: https://www.ieee.org/conferences/publishing/templates

For more information visit: https://steps2026.vercel.app/

For any queries: ieeesteps2025@gmail.com (M. No: 6005352412)

**Venue**

Auditorium, NIT Srinagar