



# Report On 2<sup>nd</sup> National Conference on Recent Trends in Climate Change, Energy and Sustainability (NCRTCES) 2026

**Co-Sponsored by: Ministry of Earth Sciences, Government of India**

**Date:** 27 & 28 February 2026

**Venue:** Maharaja Surajmal Institute of Technology

**Organizing Chair:** Prof. A.K. Srivastava

**Convenor:** Prof. Naveen Dahiya

**Co-Convenor:** Dr. Geetika Dhand

**Dr. Nishtha Jatana**

The Department of Computer Science and Engineering, Maharaja Surajmal Institute of Technology, Janakpuri, New Delhi, organized the 2<sup>nd</sup> National Conference on Recent Trends in Climate Change, Energy and Sustainability (NCRTCES 2026) on 27<sup>th</sup> and 28<sup>th</sup> February 2026.

The two-day conference NCRTCES 2026 was conceptualized as an interdisciplinary academic forum to address the growing interface between environmental challenges, engineering innovation, data-driven analysis, and sustainable development practice. The conference aimed to promote scholarly dialogue, encourage research collaboration, and support the exchange of ideas on contemporary issues related to climate resilience, energy sustainability, ecosystem protection, and technology-enabled environmental solutions.

A key focus of the conference was the application of **Artificial Intelligence (AI)** and related technological innovations to promote environmental sustainability and enhance energy efficiency. In addition to facilitating academic exchange, the conference also underscored the importance of environmentally responsible practices, including efforts to reduce plastic usage and encourage the adoption of sustainable alternatives such as eco-friendly stationery. Through the integration of intellectual inquiry with eco-conscious initiatives, NCRTCES 2026 aimed to inspire innovative thinking and action-oriented approaches to some of the most critical issues facing our planet today.

## **Inaugural Ceremony (Day 1: 27<sup>th</sup> February 2026)**

The inaugural session was graced by the presence of the following distinguished dignitaries:

**Chief Guest: Prof. (Dr.) R. K. Khandal**, Director – Technology & Innovations, Premier Green Innovations Pvt. Ltd.

### **Guests of Honour:**

**Dr. Jagvir Singh**, Scientist G, Ministry of Earth Sciences, New Delhi

**Prof. S. K. Garg**, Director, East Delhi Campus, Former Pro Vice Chancellor, DTU, New Delhi

### **Keynote Speakers**

**Prof. Vishal Bhatnagar**, Professor and Head, NSUT (East Campus), Delhi

**Dr. Palak Balyan**, Research Lead, Climate Trends, New Delhi

The inaugural ceremony of the **2nd National Conference on Recent Trends in Climate Change, Energy and Sustainability (NCRTCES 2026)** was held on **27 February 2026** at **Maharaja Surajmal Institute of Technology (MSIT), Janakpuri, New Delhi**. The event marked the formal commencement of the two-day national conference and brought together eminent dignitaries, keynote speakers, academicians, researchers, students, and faculty members on a common platform to deliberate upon contemporary challenges and emerging solutions in the areas of climate change, energy, sustainability, and allied technologies.



The ceremony began with the **traditional lamp lighting**, symbolizing knowledge, wisdom, and enlightenment. This was followed by the **Welcome Address** delivered by the **Dr. Archana Balyan Director, MSIT**, who welcomed the Chief Guest, Guests of Honour, keynote speakers, invited dignitaries, researchers, faculty members, and participants. In the address, emphasis was laid on the need for interdisciplinary collaboration, research-based innovation, and technology-enabled solutions to address critical environmental and sustainability challenges.



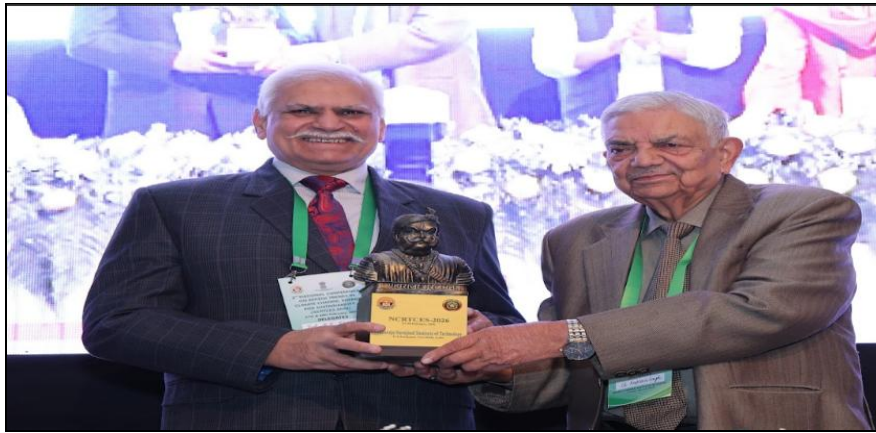
**Sh. Kaptan Singh, President, Surajmal Memorial Education Society**, addressed the gathering and reiterated the institution's commitment to academic excellence, quality research, and sustainability-oriented initiatives. He appreciated the efforts of the organizing committee for creating a meaningful academic platform for discussion on issues of national and global significance.



During the inaugural session, **Dr. Jagvir Singh, Scientist G, Ministry of Earth Sciences, New Delhi**, highlighted the importance of scientific research, accurate weather forecasting, and climate-resilient planning for minimizing environmental risks. **Prof. S. K. Garg, Director, East Delhi Campus and Former Pro Vice Chancellor, DTU, New Delhi**, shared his views on sustainable urban planning and emphasized the role of higher educational institutions in creating awareness, encouraging innovation, and developing practical solutions for environmental sustainability.

Among the keynote speakers, **Prof. Vishal Bhatnagar, Professor and Head, NSUT (East Campus), Delhi**, first delivered his address on the role of **Artificial Intelligence and Machine Learning in climate data analysis and environmental decision-making systems**, underlining the growing relevance of advanced computational tools in predictive analytics, resource optimization, and sustainability planning. This was followed by the keynote address of **Dr. Palak Balyan, Research Lead, Climate Trends, New Delhi**, who spoke on climate communication, policy engagement, and the significance of data-driven approaches in climate studies. Her deliberation emphasized the importance of effectively communicating climate-related knowledge to policymakers, practitioners, and society at large.





The **Chief Guest, Prof. (Dr.) R. K. Khandal, Director – Technology & Innovations, Premier Green Innovations Pvt. Ltd.**, in his address, emphasized the importance of green technologies, sustainable industrial practices, and effective industry–academia collaboration in achieving long-term environmental goals. He encouraged academic institutions and researchers to focus on practical, scalable, and socially relevant innovations for sustainable development.

The inaugural session concluded with the **Vote of Thanks** delivered by the **Convener, Prof. (Dr.) Naveen Dahiya**, who expressed sincere gratitude to the Chief Guest, Guests of Honour, keynote speakers, dignitaries, participants, faculty members, members of the organizing committee, and support staff for their valuable presence and contribution to the successful conduct of the conference.

The inaugural ceremony set the stage for an intellectually stimulating series of technical paper presentations by students and researchers. Parallel sessions enabled participants to present their ground-breaking research on a variety of themes, aligning with the nine major tracks of the conference:

Across the two days of the conference, the technical sessions covered the following nine tracks:

1. **Climate Change, Extreme Weather and Environment**
2. **Energy Efficiency and Conservation**
3. **Weather Forecasting and Information Management**
4. **Sustainability, Environment and Ecosystem Management**
5. **Artificial Intelligence and Machine Learning**
6. **Computer Science Applications in Climate Data and Weather Forecasting**
7. **Recycling, Reuse and Resource Recovery**
8. **Waste-to-Value Innovations**
9. **Lightning Science, Impacts and Safety Technologies**

Overall, the technical sessions enriched the conference by fostering dialogue, encouraging collaboration, and promoting research-based approaches toward climate resilience, environmental sustainability, and responsible technological advancement. Bottom of Form

## **Technical Sessions and Research Exchange**

Following lunch, the conference proceeded with parallel technical paper presentation sessions conducted across multiple halls. Researchers and scholars presented original research aligned with conference tracks such as climate change and extreme weather, energy efficiency and conservation, sustainability and ecosystem management, artificial intelligence and machine learning applications, computer science applications in

climate data, and waste-to-value innovations. The sessions were marked by active discussions, constructive feedback, and meaningful academic exchange.

The programme schedule records that Day 1 hosted five parallel paper presentation sessions, while Day 2 hosted four additional sessions. This multi-session format enabled broad participation and gave delegates exposure to a range of environmental, computational, and engineering approaches relevant to climate change and sustainability.

## Proceedings Volume and Academic Contribution

A major strength of NCRTCES 2026 is the availability of a structured proceedings volume. The volume contains institutional messages, programme schedules, keynote speaker profiles, organizing committee details, and a substantial abstract section. Based on the proceedings listing, the publication documents accepted abstracts spanning AI, environmental monitoring, sustainable systems, healthcare analytics, climate forecasting, energy storage, agriculture, cybersecurity, and related applied domains.



A few selected papers will be published in a Scopus indexed conference proceedings. The proceedings-based documentation is important because it converts the conference from a short-duration academic event into a traceable scholarly record. It preserves paper titles, author names, and abstracts in a single compiled volume and thereby strengthens the academic visibility of the work presented during the conference.

- Climate variability and projected temperature-precipitation trends
- Carbon footprint tracking and environmental analytics
- Thermal energy storage and phase change materials
- AI-based weather and climate forecasting
- Precision agriculture and automated irrigation
- Green energy and biomass-to-bioenergy pathways
- XAI and medical imaging applications
- Cybersecurity, intrusion detection, and malicious URL detection
- AI-generated image detection and digital authenticity
- Smart infrastructure, IoT, and sustainable computational systems

## Day 2 Highlights (28 February 2026)

### Chief Guest:

**Sh. Pramod Narang**, Director (Technical), Petronet LNG Limited

### Guests of Honour:

**Dr. Jagvir Singh**, Scientist G, Ministry of Earth Sciences, New Delhi

### Keynote Speakers

**Dr. Sachi Nandan Mohanty**, Professor, School of Computer Science and Engineering, VIT-AP University, Amaravati, Andhra Pradesh

**Prof. Man Singh**, Founder Dean and former Senior Professor, School of Chemical Sciences, Central University of Gujarat

The second day of NCRTCES 2026 continued the momentum with inspiring keynote addresses by Dr. Sachi Nandan Mohanty, Professor, School of Computer Science and Engineering, VIT-AP University, Amaravati, Andhra Pradesh, and Prof. Man Singh, Founder Dean and former Senior Professor, School of Chemical Sciences, Central University of Gujarat. Their contributions expanded the conference's academic reach by bringing perspectives from computational intelligence, data analytics, and interdisciplinary sustainability research.

After the keynote session, additional parallel technical sessions were conducted across multiple halls. Participants actively discussed their research, received feedback from experts, and explored possibilities for interdisciplinary collaboration. These sessions sustained the academic momentum built during Day 1 and reinforced the conference's research orientation.



## Valedictory Ceremony

After lunch, the valedictory function was organized in the auditorium. The Conference Report was presented by the Co-Convener, summarizing the major activities, participation, and academic contributions of both days of the conference. The Director of MSIT delivered the Welcome Address and greeted the distinguished guests, faculty members, and participants. Dr. Nishtha Jatana, Co-Convener, NCRTCES'26 presented the conference report, highlighting the key takeaways of the conference.

During the valedictory session, certificates were distributed to participants by the dignitaries. The Guest of Honour, Dr. Jagvir Singh, Scientist G, Ministry of Earth Sciences, Government of India, once again stressed the significance of scientific research, accurate weather forecasting, and climate-resilient strategies. The Chief Guest, Sh. Pramod Narang, Director (Technical), Petronet LNG Limited, delivered an inspiring address

highlighting the importance of industry-academia collaboration and the adoption of green technologies to achieve long-term environmental goals.



The programme concluded with the Vote of Thanks by Dr. Geetika Dhand, the Co-Convenor, NCRTCES'26, who expressed gratitude to all speakers, dignitaries, organizing committee members, participants, and volunteers for their contribution to the successful conduct of NCRTCES 2026. High tea for dignitaries followed the formal conclusion of the event.

**Key highlights of the conference included:**

- **Knowledge Sharing Platform:** The conference served as a dynamic platform for exchanging ideas, best practices, and recent advancements on the topics related to Climate change, Energy, Sustainability and AI.
- **Paper Presentations:** Groundbreaking research was presented across nine major tracks, fostering intellectual growth and interdisciplinary learning.
- **Publication Opportunities:** Selected and/or extended high-quality papers will be considered for publication in reputed SCIE, ESCI, and Scopus-indexed journals, offering authors a valuable opportunity to disseminate their work globally.
- **Networking Opportunities:** The conference facilitated meaningful connections and collaborations among academicians, researchers, students, and industry professionals.
- **Keynote Addresses:** Eminent speakers delivered insightful keynote talks on emerging trends and future directions in their respective fields.
- **Panel Discussions:** Engaging panel discussions provided diverse perspectives on contemporary challenges and innovative solutions.
- **Collaborative Initiatives:** Opportunities for future collaborations among institutions and organizations were explored and initiated.
- **Recognition of Excellence:** Certificates and accolades were awarded to participants, speakers, and organizers for their valuable contributions.
- **Best Paper Awards:** Outstanding research contributions were recognized through Best Paper and Best Presentation awards.
- **Student Participation:** Active involvement of students through presentations and discussions fostered a vibrant learning environment.

## Conclusion

NCRTCES 2026 emerges as a well-structured national conference that successfully combined formal inaugural and valedictory sessions, expert talks, multi-track research presentations, publication support, and documentary follow-through through its proceedings volume and official website.



The event created an interdisciplinary forum for discussion, dissemination, and academic networking in the domains of climate change, energy, sustainability, and computational methods for environmental problem solving.

Taken together, the available conference documents show that NCRTCES 2026 was not merely ceremonial in character. It provided a serious academic platform for knowledge sharing and collaboration, while also documenting its outcomes in a form that can support future reference, visibility, and institutional reporting.

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**Prof. (Dr.) Naveen Dahiya**  
**Convener, NCRTCES 2026**