



**Report
on
National Conference on Recent Trends in Climate Change, Energy, and
Sustainability (NCRTCES)2024: A Platform for Innovation and
Sustainability**

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

Date: 11&12 November, 2024

Venue: Maharaja Surajmal Institute of Technology

Organising Chair: Prof. Archana Balyan

Convenor: Prof. Koyel Datta Gupta

**Co-Convenor: Prof. Puneet Azad
Dr. Deepshikha Yadav
Dr. Anju Dhillon**

The **National Conference on Recent Trends in Climate Change, Energy, and Sustainability (NCRTCES 2024)**, hosted by **Maharaja Surajmal Institute of Technology (MSIT)**, marked a significant milestone in academic and professional discourse. This highly anticipated event brought together leading experts, scholars, and students from diverse fields to explore emerging trends, cutting-edge research, and innovative solutions for addressing pressing global issues. With a strong focus on fostering interdisciplinary collaboration, the conference aimed to address unresolved research questions related to climate change, energy management, and sustainability, while providing fresh, creative concepts to tackle these challenges.

A notable emphasis was placed on the integration of **artificial intelligence (AI)** to advance environmental sustainability and optimize energy use. Beyond the exchange of knowledge, the conference championed eco-friendly practices, advocating for reduced plastic usage and the adoption of sustainable alternatives such as eco-friendly pens and pencils. By combining intellectual rigor with environmentally conscious initiatives, NCRTCES 2024 aimed to inspire innovative thinking and action-oriented approaches to some of the most critical issues facing our planet today.





Day 1 (11/11/2024)

Chief Guest: Dr. Arun Tripathi, Ex. Director General, National Institute of Solar Energy, Ministry of New and Renewable Energy, GOI

Guest of Honour: Dr. Jagvir Singh, Scientist G, Ministry of Earth Sciences Government of India

Guest of Honour: Prof. Prem Vrat is the Pro-Chancellor; Professor of Eminence and Chief Mentor at The NorthCap University, Gurugram

Guest of Honour: Dr Buddha Chandrasekhar, Chief Coordinating Officer, AICTE, India

Guest of Honour: Prof. S.K. Garg, Director, East Delhi Campus, Former Vice Chancellor, Delhi Technological University, India

Keynote Speaker: Dr. Jagvir Singh, Scientist “G”, Ministry of Earth Sciences Government of India

Keynote Speaker: Dr. O. P. Mishra, Scientist- “F”; Ministry of Earth Sciences, Government of India

Keynote Speaker: Dr. Palak Balyan, Research Lead, Climate Trends

Keynote Speaker: Col. B. Venkat, Registrar, TERI School of Advanced Studies of professionals, students, and faculty members.

The inaugural day of NCRTCES 2024 commenced with the arrival of esteemed dignitaries, including **Dr. Jagvir Singh**, Scientist G at the Ministry of Earth Sciences, Government of India; **Prof. Prem Vrat**, Pro-Chancellor of The NorthCap University, Gurugram; **Dr. Buddha Chandrashekhar**, Chief Coordinating Officer, AICTE, India; and **Prof. S.K. Garg**, Director, East Delhi Campus and former Vice-Chancellor of DTU, among others. Following the ceremonial lamp lighting and **Saraswati Vandana**, **Prof. Archana Balyan**, Director of MSIT and Organizing Chair of NCRTCES 2024, delivered a warm welcome address.

The day’s keynote addresses by notable speakers, including **Dr. Jagvir Singh**, **Dr. O.P. Mishra**, and **Dr. Palak Balyan**, provided deep insights into contemporary challenges and innovations in climate change, energy management, and sustainability. 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 groundbreaking research on a variety of themes, aligning with the five major tracks of the conference:

1. **Climate Change and Extreme Weather**
2. **Energy**
3. **Weather Forecasting and Information Management**
4. **Sustainability**
5. **Artificial Intelligence and Machine Learning**

Day 2(12/11/2024)

Chief Guest: Sh. Karnal Singh, Former Director of Enforcement Directorate

Guest of Honor: Dr. Ishwar Singh, Professor, Maulana Azad Medical College, Delhi

Keynote Speaker: Dr. Sachi Nandan Mohanty, Professor, School of Computer Science & Engineering, VIT-AP University, Amaravati, Andhra Pradesh, India

Keynote Speaker: Prof. Man Singh, Central University of Gujrat

Keynote Speaker: Dr. Parul Singh, Assistant Professor, University of Delhi

The second day of NCRTCES 2024 continued the momentum with inspiring keynote addresses by **Dr. Sachi Nandan Mohanty**, Professor at VIT-AP University; **Prof. Man Singh**, Professor at the Central University of Gujarat; and **Dr. Parul Singh**, Assistant Professor at Delhi University. The speakers delved into the latest advancements in artificial intelligence and sustainable technologies, emphasizing their role in addressing environmental challenges.

Following the keynote sessions, researchers and students presented their innovative papers across various tracks, with interactive Q&A rounds enabling meaningful discussions and knowledge exchange. These sessions showcased the diverse expertise of the participants and underscored the importance of collaborative research.

The day also included a welcome address by **Prof. Archana Balyan**, followed by the **conference report presentation** and a certificate distribution ceremony conducted by the dignitaries. Further enriching the day were addresses by prominent personalities, including **Sh. Karnal Singh**, Former Director of the Enforcement Directorate, and **Dr. Ishwar Singh**, Professor at Maulana Azad Medical College, Delhi.

Throughout the event, ample networking opportunities allowed participants to engage with peers, academics, and industry experts, fostering new collaborations and broadening professional networks.

A Milestone in Academic Excellence

NCRTCES 2024 successfully provided a platform for discussing unresolved research issues related to climate change, energy, and sustainability, while inspiring innovative ideas and solutions. The event underscored the critical role of artificial intelligence in promoting environmental sustainability and effective energy management.

Key highlights of the conference included:

- **Paper Presentations:** Groundbreaking research presented across five major tracks, fostering intellectual growth.
- **Cultural Program:** A celebration of talent and diversity, providing a refreshing break for participants.
- **Networking Opportunities:** Facilitated connections and collaborations among academics, students, and professionals.

As the conference concluded, the organizing committee extended heartfelt gratitude to the speakers, presenters, participants, and volunteers whose efforts ensured the event's success. NCRTCES 2024 will undoubtedly serve as a foundation for future research, innovation, and collaborative efforts in addressing global challenges related to climate change, energy, and sustainability.



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