Distinguished Speakers

Keynote Speakers

Prof. Sudhir Chella Rajan
Professor of Political Theory & Environment
Indian Institute of Technology (IIT) Madras

Prof. Janki Andharia
Professor (Retd.) & Climate Policy Scholar
Tata Institute of Social Sciences (TISS), Mumbai

Invited Speakers & Panelists

Prof. Ashish Verma
Indian Institute of Science (IISc) Bangalore

Prof. Subimal Ghosh
Indian Institute of Technology (IIT) Bombay

Prof. Mahua Mukherjee
Indian Institute of Technology (IIT) Roorkee

Ms. Vijeta Bezzam
World Bank, South Asia Region

Prof. David J. Yu
Purdue University, West Lafayette

Prof. Samiul Hasan
University of Central Florida, Orlando

Prof. Takahiro Yabe
New York University, New York

Prof. Anamika Shreevastava
New York University, New York

About the Workshop

The workshop focuses on addressing climate risks and infrastructure vulnerabilities through advanced data-driven approaches. Experts from IIT Roorkee, Purdue University, and other institutions will share insights on climate modelling, resilient design, mobility analytics, and policy frameworks.
Organized under the SPARC (MoE) program, the workshop aims to promote international collaboration and equip researchers and practitioners with tools and knowledge to support climate-resilient infrastructure planning and decision-making.

Why This Workshop is Important?

- Extreme weather events are increasing in frequency and severity.
- Many Indian cities and transport networks lack climate-resilient design frameworks.
- Data-driven tools (AI, remote sensing, mobility datasets, simulation models) now enable deeper insights into climate risk.
- Policymakers and planners need research-backed guidance for infrastructure adaptation.
- Collaboration between Indian and international institutions accelerates innovation and implementation.

Who Should Attend?

- Faculty & Researchers
- Ph.D., M.Tech., and UG Students
- Government agencies & Urban Planners
- Infrastructure and Transportation Professionals, Policy Makers
- Disaster Risk Management Practitioners

शिक्षा मंत्रालय
MINISTRY OF EDUCATION
सत्यमेव जयते

SPARC
Scheme for Promotion of Academic and Research Collaboration

Workshop on

Data-Driven Climate Change and Resilient Infrastructure

A SPARC (MoE) Collaborative Workshop

Organized by

Department of Civil Engineering, IIT Roorkee

in collaboration with

Prof. Satish V. Ukkusuri
Hubert and Audrey Kleasen Professor in Civil Engineering, Purdue University, USA

2–3 February 2026
Indian Institute of Technology Roorkee
Roorkee, Uttarakhand, India

Workshop Themes

Climate Risk & Extreme Events

- Data-driven climate risk assessment
- Cyclone and extreme weather impact modeling
- Heatwave analysis and adaptation strategies
- Flooding and hydrological risk management
- Landslide and geohazard risk assessment

Resilient Infrastructure & Urban Systems

- Resilient infrastructure planning and design
- Sustainable transport and smart cities
- Urban resilience and policy frameworks
- Disaster mitigation and emergency preparedness

Advanced Tools & Policy Innovation

- Big data analytics for climate and infrastructure
- Modeling, simulation, and digital twins
- Climate policy, governance, and decision support

Tentative Schedule

Day 1
2 February 2026

- Registration & Opening Ceremony
- Keynote Addresses
- Expert Talks
- Panel Discussion
- Networking & Interaction

Day 2
3 February 2026

- **Technical Sessions**
- **Poster Presentations**
- **Closing Remarks**

Call for Abstracts

We invite original research abstracts related to climate change, resilient infrastructure and urban resilience, particularly those aligned with the workshop themes. Abstracts should clearly present the background, objectives, methodology and key findings or expected contributions of the work. Abstracts must be submitted through the workshop website using the online abstract submission form. Interested participants may also attend the workshop without submitting an abstract.

Important Dates

Abstract Submission Deadline: 05 Jan 2026
Notification of Acceptance : 12 Jan 2026
Early Bird Registration End : 20 Jan 2026
Workshop Dates : 2-3 Feb 2026

Registration Fees

Category	Fee
IIT Roorkee Students, Research Scholars and Faculty	₹ 500
Students, Research Scholars, JRFs/SRFs, RAs and Post-Docs from other institutions	₹ 1,000
Faculty from other institutions	₹ 2,000
Industry participants and other professionals from India	₹ 3,000
International participants from SAARC countries	US$50
International participants (non-SAARC)	US$75

Registration includes access to all workshop sessions, workshop materials, lunch, dinner, refreshments, participation certificate, and access to poster sessions.

🌐Workshop Website: https://climatesparc.iitr.ac.in/

Workshop Venue

Department of Civil Engineering
Indian Institute of Technology Roorkee (IIT) Roorkee
Roorkee, Dist. Haridwar, Uttarakhand, India

The workshop will be held at the Indian Institute of Technology (IIT) Roorkee, formerly the University of Roorkee, one of the oldest technical institutions in Asia. Established in 1847, IIT Roorkee has been a pioneer in engineering education and research in India. The Department of Civil Engineering is renowned for its work in sustainable infrastructure and climate resilience, making it an ideal venue for this workshop.

Accomodation & Travel

Limited accommodation (on payment basis) may be available in IIT Roorkee guest houses and hostels on prior request, subject to availability. Participants may also book from several good hotels of different categories located within 1-3 km of the campus. Detailed information on accommodation options and how to reach the campus will be provided on the workshop website.

Nearest transport hubs:

- Jolly Grant Airport, Dehradun – 65 km
- Roorkee Railway Station – 3 km
- ISBT Roorkee – ~200 m

Organizing Committee

Organizing Chair:
Prof. Indrajit Ghosh
Department of Civil Engineering, IIT Roorkee

In Collaboration With:
Prof. Satish V. Ukkusuri
Hubert and Audrey Kleasen Professor in Civil Engineering, Purdue University, USA

Contact

For queries regarding registration, abstracts or logistics: ✉ sparc2026@ce.iitr.ac.in