



**National Conference
On**

**“Himalayan Resilience:
Cryosphere, Climate Change, and
Disaster Risk Reduction”**



**February 26th – 27th, 2025
Gangtok, Sikkim, India**

**Organized by
Department of Geology
Sikkim University**

**In association with
DST’s Centre of Excellence**

**“Water Resources, Cryosphere and Climate Change Studies”
Department of Geology, Sikkim University**

Preamble

The Himalayan region, renowned for its breathtaking landscapes and rich biodiversity, is increasingly vulnerable to the impacts of climate change. The cryosphere, a critical component of this ecosystem, is undergoing rapid transformations due to rising temperatures and environmental stressors. Glacial retreat and the emergence of unstable glacial lakes pose significant risks, particularly through Glacial Lake Outburst Floods (GLOFs), which threaten communities and infrastructure in hilly terrains. Additionally, the disruption of the hydrological cycle has far-reaching implications for water resource availability and natural hazards such as lake outburst floods and landslides.

Air pollution from fossil fuel combustion, industrial activities, and vehicular emissions further accelerates glacier melt and contributes to sea-level rise, compounding the challenges faced by this fragile region. Despite advancements in remote sensing, hydrological modeling, and real-time climate monitoring, persistent data gaps and the region's rugged terrain hinder effective hazard assessment and response.

Recognizing the urgent need for comprehensive disaster risk reduction strategies, this national conference aims to foster collaboration among scientists, policymakers, and local communities. By integrating research on the cryosphere and climate change with practical applications in disaster management, we seek to enhance resilience in the Himalayan region. Join us in Gangtok, Sikkim, on February 26-27, 2025, as we explore innovative solutions to these pressing challenges.

Vision

To foster a knowledge-driven approach for enhancing resilience in the Himalayan region by addressing cryosphere dynamics, climate change, and disaster risk reduction through targeted lectures.

Aim

To disseminate state-of-the-art scientific knowledge and practical insights on the interconnections between the cryosphere, climate change, and disaster risks in the Himalayas, and awareness among key stakeholders.

Key areas/ themes

Cryosphere Research:

Glacier evolution, monitoring, and glacial lake mapping; Glacier energy balance and modelling.

Hydrology and Climate Change:

Hydrological modelling; Qualitative and quantitative availability of water under various climate scenarios.

Mass movement and Geohazards:

Hazard and risk assessment of lake outburst, debris & mudflow, and landslide damming etc.

Air Pollution and Climate/Weather Monitoring:

Innovations in monitoring/modelling of black carbon and aerosols using ground stations and satellite data.

Disaster Risk Reduction Strategies:

Integration of participatory approaches along with technologies for community-level disaster preparedness. Policy frameworks emphasizing nature-based solutions, such as ecosystem restoration and sustainable development practice etc. to minimize climate risks.

Call for abstract

Researchers are invited to submit original research work aligned with the “Key Areas/Themes” for the conference.

Abstract Submission Guidelines:

Abstracts must be submitted as a PDF document, The abstract should include the Title of the Research, Author(s) details, including Names and Affiliations, presenting Author's Name and Email ID, Abstract (limited to 250 words). Key Words, Font: Times New Roman Font Size: 12 pt, Line Spacing: Single

Mode of presentation shall be intimated after acceptance of abstract.

Target groups

Graduates, researchers, scientists, and academicians from several academic disciplines, as well as experts, stakeholders in multiple sectors of Environmental Sciences and Geology.

Submission of abstract and full-length paper

Abstract submission start :25th December 2024

Last date of abstract submission: 15th January 2025

Declaration of acceptance of abstract: 25th January 2025

Full length article submission: 31st January 2025

Call for registration

Interested participants can register & submit abstract by filling up the Google form using the link/ QR code:

<https://forms.gle/6V2zX1noAS6m67Tv8>



Registration fee

Particular	Early Bird	Spot Registration
Student/ Research Scholar	RS 500	RS 1000
Faculty/ Scientists	RS 1500	RS 2000
Industrial/ Corporate	RS 2000	RS 3000

Bank details and transaction/ payment

Bank account details for registration:

Bank Name: Axis Bank Ltd, M.G. Marg, Gangtok

Account Name: Sikkim University

Account Number: 112010100231541

IFSC: UTIB0000112

The transaction/ payment ID (stamped counter receipt no. or electronically generated ID) information must be filled in the Google form.

About Sikkim University

Sikkim University, established in 2007, is a central university located in Gangtok, the capital city of the Northeastern state of Sikkim, India. The university is renowned for its unique academic approach, which integrates local culture and global perspectives, catering to the needs of the region while preparing students to face global challenges. Situated in a region known for its biodiversity, cultural diversity, and strategic geopolitical location, Sikkim University plays a vital role in contributing to the academic, cultural, and economic development of the Northeastern part of India. The nearest airport and railway station are Bagdogra (IXB) and New Jalpaiguri (NJP), respectively.

Historical background

The establishment of Sikkim University was a part of the central government's efforts to improve higher education in the Northeastern Region, where educational infrastructure had historically been underdeveloped. The university was set up by an Act of Parliament and functions under the Ministry of Education, Government of India. Its location in Gangtok, amidst the Himalayan mountains, presents a unique environment for both research and learning.

The university began with a few undergraduate and postgraduate courses but has since expanded its academic offerings significantly. From its humble beginnings, it has grown into a full-fledged institution offering a wide array of disciplines, including the natural and social sciences, humanities, and environmental studies. Despite being a relatively young university, Sikkim University has made significant strides in terms of academic development, infrastructure, and student enrolment.

About the Department of Geology

The Department of Geology at Sikkim University is dedicated to academic excellence in Geology and Environmental Science, offering both Master's and PhD programs. Since its establishment, the department has focused on advancing research and development in fundamental and applied mountain science in the Sikkim region. In recognition of its efforts, the department was awarded a Centre of Excellence by the Department of Science and Technology (DST) in 2020. It actively conducts research on various aspects of the, geology, cryosphere, atmospheric science, climate change, and water resources in the Sikkim Himalayas.

About Gangtok

Gangtok is the capital of the mountainous northern Indian state of Sikkim. Established as a Buddhist pilgrimage site in the 1840s, the city became capital of an independent monarchy after British rule ended but joined India in 1975. Today, it remains a Tibetan Buddhist center and a base for hikers organizing permits and transport for treks through Sikkim's Himalayan mountain ranges.

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For any query related to registration and participation in the conference, do reach us at:



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