National Conference on Himalayan Cryosphere-2023

DST-Centre of Excellence in Climate Change

Divecha Centre for climate change

Indian Institute of Science, Bengaluru

Schedule of Oral Presentations

22nd November 2023		
08:00-09:00	**Breakfast at rooftop, DCCC**	
09:00-09:30	**Registration**	
09:30-10:05	**Inauguration by Shri. Somanath, S., Secretary, Department of Space/ Chairman, ISRO**	
10:10-10:30	**Photo session and Tea break**	
10:30-11:00	**Poster Presentations**	
Technical Session I A– Observations, processes and dynamics of Himalayan Cryosphere **Session Chair: Dr. Geetha Priya M, CIIRC-Jyothy Institute of Technology, Bangalore**		
11:00-11:15	**Invited talk**	**Dr. Aparna Shukla, Ministry of Earth Sciences**
11:15-11:25	Increased up-glacier thinning in four major glaciers of High Mountain Asia revealed by geodetic mass balance estimates	Arindan Mandal Indian Institute of Science, Bengaluru, India
11:25-11:35	Geodetic mass balance of glaciers in Spiti river basin	Ashutosh Kulkarni BITS-Pilani, K K Birla Campus, Goa
11:35-11:45	Mapping Rock Glaciers and Modeling Mountain Permafrost in the Jhelum Basin, Kashmir Himalaya, India	Dr. Remya S N School for sustainable Futures, Amrita Vishwa Vidyapeetham, Kerala
11:45-11:55	Glacier resource assessment of Ladakh Mountain Range, Upper Indus Basin: Implications for Leh and it's environmental water supplies	Dr. Riyaz Ahmad Mir National Institute of Hydrology, Jammu
11:55-12:05	Assessment and validation of snow-ice melts runoff in Chandra basin, Lahaul and Spiti region of Western Himalaya	Dr. Vinay Gaddam V R Siddhartha Engineering College, Vijayawada
12:05-12:15	Effective snow cover mapping for Rathong glacier region using Sentinel-2 dataset	Bhawna Indian Institute of Technology Guwahati
12:15-12:25	Improving the accuracy of Snow Cover Mapping in the Kashmir Himalayas Using a New Snow Index Threshold method	Mohd Aazim University of Kashmir
12:25-12:35	Unveiling the Recent Recession of the Nun-Kun Group of Glaciers in the Northwester Himalaya	Mustafa Hameed Bhat University of Kashmir

12:35-12:45	Development of a Spatially Distributed Snow and Glacier Melt Runoff Model (SDSGRM) for Data Scarce High-Altitude River Basins	P. C. Vanlalnunchhani North Eastern Regional Institute of Science and Technology (NERIST)
12:45-14:00	**Lunch break**	
Technical Session I B– Observations, processes and dynamics of Himalayan Cryosphere Session Chair: Dr. Babu Govindha Raj K, Indian Space Research Organisation, Bangalore		
14:00-14:10	Distribution of ice thickness and glacier volume modelling using VOLTA in the Baspa Basin, Himachal Pradesh	Dr. Rajesh Kumar Central University of Rajasthan
14:10-14:20	Estimation of glacial stored water in Nubra basin, Western Himalaya	Parvathi Harikumar Amrita Vishwa VIdyapeetham
14:20-14:30	Challenges in understanding the variability of the cryosphere in the Himalaya and its impact on regional water resources: issues and challenges	Prof. Alluri Venkata Nagavarma Adikavi Nannyya University
14:30-14:40	Did the dynamics of western Himalayan glaciers change around 2000?	Purushottam Kumar Garg G. B. Pant National Institute of Himalayan Environment
14:40-14:50	Spatiotemporal Snow depth Estimation over Western Himalaya using Support Vector Machine and Passive Microwave Remote Sensing Datasets	Tanniru Srinivasarao, Indian Institute of Technology Bombay
14:50-15:00	Development and application of a Glacier Energy and Mass Balance Model to simulate glacier surface area: A Case study for Selected Glaciers of Mago River Basin, Arunachal Pradesh	Tarak Golom North Eastern Regional Institute of Science and Technology
15:00-15:10	The Influence of Debris Thickness and Supraglacial Facies on the Melting of Raj Bank Glacier, Dhauliganga basin central Himalaya	Ushesh Tripathi HNB Garhwal University, Srinagar Garhwal, Uttarakhand
15:10-15:20	Rock glaciers as discontinuous permafrost in Kashmir Himalayas, J&K, India.	Zahid Majeed Geological Survey of India
15:20-16:00	**Tea Break**	
Technical Session II- Cryosphere and community Session Chair: Prof. H C Nainwal, HNB Garhwal University, Srinagar		
16:00-16:15	**Invited talk**	**Dr. Pervez Ahmed, University of Kashmir**
16:15-16:25	The Microbiome of Cryospheric ecosystems: issues and future research	Prof. Alluri Venkata Nagavarma Adikavi Nannyya University
16:25-16:35	A CBIR module for the Detection and Estimation of Geographic features from satellite imageries using Haar Wavelet and Artificial Neural Network Technique	Dr. Y N Mamatha HKBK College of Engineering
16:35-16:45	Unrevealing the Linkages between Climate Policy and Mountainous Hazards across Hindu-Kush Himalayan Region: Role of Communication and their Socio-Economic Resilience	Shreya Sinni Jharkhand State Livelihood Promotion Society, Rural Development Dept., Govt of Jharkhand
16:45-17:30	**Poster display at DCCC rooftop**	

19:00-21:00	**Dinner at Main guest house**

23rd November 2023		
09:00-10:00	**Breakfast at rooftop, DCCC**	
10:00-10:30	**Poster presentations**	
Technical session III- Himalayan Cryosphere under warm climate **Session Chair: Dr. Mohd Farooq Azam, Indian Institute of Technology, Indore**		
10:30-10:45	**Invited talk**	**Prof. Argha Banerjee, IISER-Pune**
10:45-10:55	Microbial ecology from the Himalayan cryosphere perspective: issues and intricacies	Prof. Alluri Venkata Nagavarma Adikavi Nannyya University
10:55-11:05	Snowmelt Dynamics in Sikkim Himalaya Region: The Interplay of Regional Climate Shifts and Black Carbon Prediction via Random Forest	Sweta Kumari CSIR-NEERI
11:05-11:15	Impact of Global warming that increases the vulnerability of the Himalayan Cryosphere: a review	Shivendra Pratap Singh Deen Dayal Upadhyaya Gorakhpur University
11:15:11:25	Analyzing melt runoff and its constituents in the Parvati basin, Western Himalaya	Pradeep S Indian Institute of Science, Bangalore
11:25-12:00	**Tea Break**	
Technical session IV- Himalayan Cryosphere and disaster **Session Chair: Dr. Gulab Singh, Indian Institute of Technology Bombay**		
12:00-12:15	**Invited talk**	**Dr. Ashim Sattar, IIT- Bhubaneswar**
12:15-12:25	Climate change, cryosphere and impacts in the Indian Himalayan region: problems and strategies	Prof. Alluri Venkata Nagavarma Adikavi Nannyya University
12:25-12:35	Climate Change and Its Impacts upon Himalayan Cryosphere; GLOF- Risk and Vulnerability Analysis	Subhashree Priyadarshini Sahoo Central University of Karnataka
12:35-12:45	Potential of Acoustic Emission Monitoring for Prediction of Snowpack Fracture on Inclined Natural Slopes	Rahul Sheoran MIT ADT University, Pune
12:45-12:55	Inventory and Spatial Distribution of Glacial Lakes in the Satluj Basin	Dr. S.S. Randhawa Himachal Pradesh State Centre on Climate Change, Shimla
13:00-14:00	**Lunch Break**	
Technical session V- Cryosphere research and policy making **Session Chair: Dr. S S Randhawa, Himachal Pradesh State Council for Science and Technology, Shimla**		
14:00-14:15	**Invited talk**	**Dr. Rajiv Kumar Chaturvedi, BITS-Pilani, Goa**

14:15-14:25	Inequalities of ice loss - a framework for addressing socio cryospheric change: issues and challenges	Prof. Alluri Venkata Nagavarma Adikavi Nannyya University
14:25-14:35	Cryosphere Research and Policy Making	Shubham Kumar National Institute of Technology Patna
14:35-15:30	Poster display at DCCC rooftop	
15:30-16:30	**Panel discussion and Concluding session**	
16:30-17:00	**Tea/Coffee**	

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विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY

Schedule of Poster presentations

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08:00-09:00	**Breakfast at rooftop, DCCC**	
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09:30-10:10	**Inauguration by Shri. Somanath, S., Secretary, Department of Space/ Chairman, ISRO**	
10:10-10:30	**Photo session and Tea break**	
10:30-10:32	Quantifying Rock Glacier displacement in the Jhelum Basin, Western Himalaya Using Sentinel-1 SAR Interferometry	Advaith S Pillai, Amrita Vishwa Vidyapeetham
10:32-10:34	Comparative Analysis of Glacier Velocity Estimation Techniques Using 2-Pass and 3-Pass DInSAR for Glacier Dynamics	Ajay Kumar Indian Institute of Technology Bombay
10:34-10:36	Refinement of Improved Accumulation Area Ratio method to estimate glacier mass balance: A case study in the Baspa river basin	Arya A R Divecha Centre for Climate Change
10:36-10:38	Estimation of Snow Cover Area for Chenab River basin using MODIS satellite product – MOD10A2	Arya Krishnan Divecha Centre for Climate Change
10:38-10:40	Impact of debris cover on the glacier melting in the Zanskar Himalaya	Basharath Nabi, University of Kashmir
10:40-10:42	Assessment of Glacier Dynamics in Eastern Dhauliganga Basin of Kumaun Himalaya, Using Earth observation Data	Dhanendra Kumar Singh Suresh Gyan Vihar University, Jaipur
10:42-10:44	Assessing Glacier Dynamics in Sikkim's Eastern Himalayas Insights from DInSAR-Based Velocity Measurements	Dhanush S CIIRC, Jyothy Institute of Technology
10:44-10:46	Glacial Insights: Unveiling Parbati Basin's 2021-2022 Mass Balance using AAR-ELA Relations	Dilsa Nasar CIIRC, Jyothy Institute of Technology
10:46-10:48	Determination of Padam glacier retreat and expansion of glacier lake in the Zanskar Himalaya using remote sensing and GIS	Dr. Varsha Prem Amrita Vishwa Vidyapeetham
10:48-10:50	Spatio-Temporal analysis of Glacier surface velocity of Gori Ganga Basin using geospatial techniques.	Durgesh Dwivedi Jamia Millia Islamia, New Delhi
10:50-10:52	Potential sites for future lake formation and eventual expansion of existing glacial lakes in the Chenab basin	Gopika J S Divecha Centre for Climate Change

10:52-10:54	Estimation of Glacier Depth and Ice Volume of Kabul Basin, Afghanistan	Roja Asharaf Indian Institute of Science
10:54-10:56	Glacier Inventory and the impact of glacier retreat on glacial lakes in the Bhutan Himalaya.	Janhavi Jadhav Divecha Centre for Climate Change
11:00-12:45	**Oral Presentations**	
12:45-14:00	**Lunch Break**	
14:00-15:20	**Oral Presentations**	
15:20-16:00	**Tea Break**	
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23rd November 2023		
09:00-10:00	**Breakfast at rooftop, DCCC**	
10:00-10:02	Assessing Glacial Lake Outburst Flood (GLOF) Hazard and Modeling Using Machine Learning and Bathymetry Extraction: A Case Study of Drang Drung Glacial Lake in Ladakh, India	Joshal Kumar Bansal Indian Institute of Technology Roorkee
10:02-10:04	Estimating ice thickness and volume of Sikkim Himalaya (India) using laminar flow and volume -area scaling methods	K. Shruti CIIRC, Jyothy Institute of Technology
10:04-10:06	Estimation of glacier stored water of Teesta basin, Sikkim	K. Shruti CIIRC, Jyothy Institute of Technology
10:06-10:08	Assessing Climate Change Impacts on Snow-Glacier Melt and Stream Flow in the Upper Beas Basin using SWAT Modelling	Mayank Upadhyay IIT Roorkee
10:08-10:10	Inventory and characteristics of the hanging glaciers of Alaknanda basin, Central Himalaya	Nandu Krishnan Divecha Centre for Climate Change
10:10-10:12	Estimation of paleo-extent and volume of glaciers in the Baspa basin, Western Himalaya	Nidhiya Jose Divecha Centre for Climate Change
10:12-10:14	Spatial and Temporal Cryo-Facies Analysis of Benchmark Glaciers Across the Himalayas and Karakoram: Implications for Climate Change Assessment	Raghavendra K R CIIRC, Jyothy Institute of Technology
10:14-10:16	Glacial lake changes and the identification of Potentially Dangerous Glacial Lakes (PDGLs) under warming climate in the Dibang River Basin, Eastern Himalaya, India	Rayees Ahmed University of Kashmir
10:16-10:18	Assessment of Snowline altitudes using machine learning algorithms: a case study in Parvati basin	Harish Naga Sai Marada, VR Siddhartha Engineering College

10:18-10:20	Evaluation of glaciers mass balance in Baspa basin using temperature index method	Samvidha Jujjavarapu VR Siddhartha Engineering College, Vijayawada
10:20-10:22	Black carbon aerosol quantification over North-west Himalayas: Seasonal heterogeneity, Source apportionment and Radiative forcing	Shaik Darga Saheb Meteorological Centre, Indian Meteorological Department, Bengaluru
10:22-10:24	Glacier thickness and volume estimation in the Upper Indus Basin using modelling and ground penetrating radar measurements	Tariq Abdullah University of Kashmir
10:24-10:26	Monitoring Pindari-Kafni Glacier: Assessing Glacier Mass Balance and Dynamics Using the Improved Accumulation Area Ratio Method	Umar Faruque Jamia Millia Islamia
10:26-10:28	Understanding the Karakoram glacier anomaly	Ummer Ameen University of Kashmir
10:30-11:25	**Oral Presentations**	
11:25-12:00	**Tea Break**	
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