

National Geo-Research Scholars Meet

RISE: Resilient Innovations for Sustainable Earth
(Come, Connect and Collaborate at the heart of Himalayan Geology)

12-14 November 2025



विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY

Wadia Institute of Himalayan Geology

(An Autonomous Institute of Department of Science & Technology (DST), Govt. of India)

Dehradun

9th National Geo-Research Scholars Meet -2025

List of Posters / Lightning Talks

Poster Board No.	Name	Title
Theme 1: Geodynamic processes and deep Earth study		
1	Nandini Choudhury	Role of Boundary Curvature on Strain Localization in Arcuate Shear Zones: Insights from Analytical, Analogue and Numerical Models
2	Parakh Sahu	Chromite formation by the melt rock interaction: Insights from Karzok ophiolite, Ladakh Himalaya
3	Anukriti Srivastava	Petrogenesis of Carbonatite and Associated Syenite from Gundlupet, Southern India
4	Vandana Yadav	Age and Petrogenetic constraints of Granitoids from Western Dharwar Craton, Southern India
5	Raza Shah Ahmedy	Identification of an Unusual Hematite Phase from the Nagaland–Manipur Ophiolite, Indo–Myanmar Range
6	K Devika Sharma	Deciphering the process of magmatism in an Early-Stage Ocean Basin formation: A case study in the Gulf of California
7	Sanjeeb Behera	Insight into the South Tibetan Detachment System and its role in Neogene exhumation of the Himalayan Metamorphic core: Fission-Track Thermochronological Constraints from the NW Himalaya, India
8	Deepanshu Joshi	P-T Constraints and Hydrothermal Genesis of Rangpo Polymetallic Deposit, South Sikkim, Eastern Lesser Himalaya

9	Vaibhav Dubey	Evolution of CO ₂ -Bearing Metamorphic Fluids during Subduction and Exhumation of the Spontang Ophiolite, Northwestern Himalaya
10	Susnata Sarkar	Evaluating Crustal Anatexis and Melt Evolution in the Eastern Arunachal Trans-Himalaya through Titanite Geochemistry and Petrochronology
11	Manoj Kumar	Geochemistry and U-Pb zircon geochronology of A-type Myliem granites of Shillong Plateau, northeast India: implications for crustal evolution during Gondwana assembly
12	Banawath Priyanka	Origin of Metabasalts from the Neoproterozoic Ramagiri-Penukonda Greenstone Belt, Central Dharwar craton, South India: Tectonic Implications
13	Mohd Mahfooz	Geochemical and Isotopic Constraints on the Origin of Hindoli–Jahazpur Granitoids, Aravalli Craton, NW India
14	Brandis Dominic Carlier	Investigating Metamorphic Linkages between Lunavada and Chotta Udepur Region, Southern Aravalli Fold Belt (SAFB), Western India: A Macro to Microscopic Approach
15	Anjitha K	Fold-Controlled Shear Localization: Field, Analogue, and DFT Studies from Chotanagpur Granite Gneissic Complex.
16	Madhusmita Swain	Wayanad Schist Belt: An Older Archean Greenstone Belt in Western Dharwar Craton, Southern India
17	Akhila Manmadhan	Geochemical & Petrographical Study of Mafic Dykes and associated rocks in the Mercara Shear Zone (MSZ), Kasaragod district, Kerala
18	Atul Singh	Dynamic Recrystallization Mechanism on Exhumation Processes of Lower Crustal Rocks: A Case Study of the Rudraprayag , Inner Lesser Himalaya, India
19	Bikash Ranjan Nayak	Petrogenesis and Geochemical Signature of Gabbros and Plagiogranites from the Naga Hills Ophiolite, Northeast India: Evidence for Fractional Crystallization in a Back-Arc Setting
20	Pratyush Kumar Dash	Xenoliths within the Felsic Orthogneisses: Insights into the Deeper Crust from Bhavani, Tamil Nadu
21	Preethiga A	Geochemical and Petrological Insights of the Jaban Meta-conglomerate and Wacke band from Champaner Group, Western India: with special reference to radioactive mineralization
22	Mahendra Kumar Singh	Tectonic shift from Orogenic to Extensional tectonic setting: A Case study from lamprophyres at the contact of Bastar Craton-Eastern Ghats Mobile Belt.
Theme 2: Quaternary Geology: Climate and Tectonics		
23	Sohan Kumar	Climate-Tectonic Interplay in Shaping the Weathering Dynamics: U-series isotopes Insight from Granite and Metabasic Weathering Profiles from Garhwal Himalaya

24	Anand Rajoriya	Late Holocene biogeochemical and environmental changes inferred from multiproxy investigation in Kondagai Lake, Tamil Nadu, India
25	Deeksha	A Comparative Analysis of Climatic Signal Recorded in Tree-Ring Width and Basal Area Increment: A Study on Teak from Chhattisgarh, Central India
26	Sushmita Singh	Paleoclimate and paleoecology reconstruction since last 18.1 ka using lipid biomarkers and sedaDNA: Toli Lake, Garhwal Lesser Himalaya
27	Choudhurimayum Pankaj Sharma	Holocene Biome Evolution of the Indian Subcontinent: Insights from Pollen Records
28	Sudipto Kolay	Grains of Change: Decoding Late Quaternary Sedimentation in the southwestern Bay of Bengal
29	Abhishek Thakur	Spatiotemporal Analysis of Satellite-Derived Aerosol Optical Depth Across Different Regions of Uttarakhand.
30	Rose Ann Sebastian	Monsoon and Stratification History in the Andaman Sea: A record of 1.2 million years using planktonic foraminifera
31	Mohd Shahrukh	Understanding Landscape Evolution and Sedimentation Processes in the Upper Satluj River, NW Himalaya
32	Rohit Thangjam	Decadal Scale Paleoenvironment Reconstruction from a High Arctic Fjord
33	Pankaj Kunmar Yadav	A Case Study of dirt cone formation over the Parkachik and Durung-Drung Glaciers, Zaskar Himalaya, India
34	Saurabh Gupta	Intensification of aridity in the Haryana alluvial plains
35	Jayabharathi J	Post-glacial Paleoclimate in the Central Ganga Plain, India: Insights from Magnetic and CHNS records.
36	Lakshmi A R	Productivity and Salinity Patterns in the Northeastern Bay of Bengal: Tracing Indian Summer Monsoon Changes Over the Last 18,000 Years
37	Ankur Singh	Anomalous heavy rainfall over the Indian subcontinent during May 2025: Transition from a Meso to Synoptic Scale
38	Shivani	Surface Morphogenesis in the Varuna Basin: Implications for Climate–Tectonic Interactions
39	Maneesha Muraleedharan E.T.	Mid-Holocene Vegetation Dynamics and Hydroclimatic Variability in the Core Monsoon Zone of India: A High-Resolution Palynological Perspective from Lacustrine Sediments
40	Anita	Surface Morphogenesis in the Gomati Basin: Insights into Climate and Tectonic Controls

Theme 3: Sedimentary Horizons and Past Life		
41	Rohit Kumar	From Fossils to Living Species: Unraveling the Biogeographical History of Murinae
42	Abhishek Pratap Singh	First occurrence of iguanian lizards (Reptilia, Squamata) from the Late Miocene deposits of Siwaliks exposed in the Dunera region of Pathankot, Punjab, India
43	Eshaa Seetharaman	Distribution of Benthic Foraminifera in the Bay of Bengal during the late Quaternary
44	Konsam Nildy Devi	Pliocene otoliths from NW India reveal first fossil osphronemid and structure of a Himalayan freshwater ecosystem
45	Shivani Sanjay Choudhari	Petrographic and geochemical characterisation of Volcaniclastic rocks from Indus basin, Ladakh Himalaya: Insights into Basin Evolution
46	Santhanakrishnan S.	Plio-Pleistocene evolution of the South Atlantic Ocean: a multi-proxy approach
47	Sneha Mary Mathew	Tracing the PETM in the Indian Tropics: n-Alkane and $\delta^{13}\text{C}$ Evidence from the Barmer Basin
48	Mrutyunjaya Sahoo	Early Permian Palaeoenvironment and Vegetation Dynamics from East Bokaro Coalfield, Damodar Gondwana Basin, India: A Multiproxy Approach
49	Manisha Kesarwani	Tracing Climatic Adaptation and Mobility in the Harappan Civilization: Strontium Isotopic Perspectives from Gujarat
50	Anjana Mohan	Reconstructing Ocean Redox Evolution and Oxygenation Using Marine Sediments and Carbonate-Based Proxies
51	Tania Mathew	Paleoclimate studies of Himalayan Lake Sediments to Reconstruct Indian Summer Monsoon Variability – A Review
52	Sunny Sohel Biswas	Early Eocene Larger Benthic Foraminifera from Zaskar Tethyan Zone, NW Himalaya: An Approach on Systematic Paleontology, Biostratigraphy and Paleogeography
53	MOHD DANISH ANSARI	Biostratigraphy and Paleoenvironmental Significance of Belemnite Assemblages from the Lower Jurassic of Spiti Valley, Himachal Pradesh
54	Priyadarshan Samal	Biostratigraphy and Palaeoenvironment of the Subathu Group of Jammu Region, NW Himalaya
55	Sneha Santhosh	Characterization of Early Paleogene Wildfire Regime from the Barmer Lignite Deposits Based on Geochemical and Microscopic Studies.
56	Bibhukalyan Acharya	Sedimentology of Tertiary Indus Basin Sedimentary Rocks (IBSR) of Western Ladakh
57	Anurag Bharadwaj	Integrated Sedimentological and Palynological studies of the Tura Formation Implications for Hydrocarbon Prospectivity in the Upper Assam Basin

58	Likith R	AI-Driven Foraminiferal Classification: Revolutionizing Microfossil Analysis Through Deep Learning Applications
59	Hiranmayee Samal	Sedimentology of the Neogene Succession of the Surma Group Exposed around Aizawl in Mizoram, India
Theme 4: Environmental Geology, Natural Resources, Hazard and Mitigation		
60	Shubhesh Sharma	Comprehensive Geo-scientific Strategies for Slope Instability Mitigation in the Kandi (Kondoi-Bondur) Area
61	Rimpy Chetia	A storm event in Early Paleogene? manifestation in a lignite deposit of western India.
62	Dev Sen Gupta	Groundwater Potential, Chemistry, and Health Risks in the Chhota Nagpur Gneissic Complex
63	Khyati Gupta	Landslide Risk Mapping along National Highway-7 in the Garhwal Himalaya
64	Ramkrishna Mondal	Evaluation of Lithium Occurrence in Coal and Associated Strata from the Makum Coalfield, Assam, India
65	Riya Singh	Behaviour and Characteristic of a Deep-Seated Gravitational Slope Deformation: An Example from the Joshimath Landslide
66	Anand Kumar Gupta	Slope Deformation Mapping in the Main Central Thrust Zones in Bhagirathi Valley, Garhwal Himalaya, Using Space-Based SAR Images
67	Priti Das	Thermo-Hydro-Mechanical Modelling of Fractured Reservoirs for Sustainable Energy Conversion
68	Priya Maurya	Multivariate Assessment of Morphometric Parameters and Tectonic Controls on Landslides in the Siang River Basin, Arunachal Pradesh
69	Archana T	Linking Water Chemistry to Nitrogen Pathways in Pichavaram Mangrove Forest, Tamil Nadu
70	Bibhuranjan Khatua	Spectral Assessment of Geo-Environmental Hazards in Puducherry
71	Pratikshya Panda	Selenium and Tellurium in chalcopyrite from Malanjkhand Copper deposit, India
72	Ishwar Chandra Rahi	Geochemical Characterization and Anomalies within the Cenozoic Lignite Deposit of Barmer Basin, Rajasthan (India)
73	Swati Ganveer	Geogenic lead contamination and seasonal hydrogeochemical controls in groundwater, south-western Chhattishgarh, Central India.
74	Kaberi Sahoo	A Novel Approach to Preparation of Mullite from Pyrophyllite
75	Furkan Ahmad	Manganese Ore Minerals Assemblages and Mineral Paragenesis Balaghat District, MP

Theme 5: Advances in Seismo-Tectonics, Sub-Surface Imaging and Crustal Deformation

76	Venkata Durga	Forward Modelling of Anomalous Magnetotelluric Phase Data in Panamik- Changlung Hotsprings Region, Ladakh
77	Aditya Mohanty	Seismic Hazard and seismogenesis in Kashmir Himalaya
78	Mohd Shahabuddin	Seismic site characterization of the Shillong City, Northeast India
79	Nardeep Nain	Surface Deformation, Fault Model and Tectonics of the 21 June 2022 Afghanistan (SW of Khost) Earthquake
80	Krati Gupta	Lineament and Structural Framework of the Konkan Offshore from Airborne Magnetic Data
81	Gokul K	H–k Stacking of Receiver Functions for Crustal Studies in the Delhi Region (India)
82	Pramit Chatterjee	Strain Localization in ductile deformations: a Possible Mechanism for Deep-Focus Earthquakes
83	Prathmesh Tari	Unravelling Shallow Crustal Structure of Mars From Insight SEIS
84	Setu Sharma	Microstructural and Field Characterization of Pseudotachylites from the Ambaji Region, South Delhi Terrain, Aravalli–Delhi Mobile Belt, NW India: Insights into Seismogenic Deformation Processes
85	Richa Kumari	Refining the ID Seismic Velocity Model
86	Glory Kikon	Efficacy of Radon Transform in Multiple Attenuation
87	Soumitra Kar	Deep Learning Aided Facies Classification from Seismic Data in Penobscot Field, Scotian Basin, Canada

Theme 6: Cryosphere, Geohydrology and Geoengineering

88	Mohit Pajapati	Four Decades of Glacier Change in Karzok, Ladakh (1980–2023): Influence of Climatic and Non-Climatic Drivers
89	Sarmistha Halder	From Balance to Imbalance: Altitudinal Thinning in the Gangotri Glacier Basin
90	Soumya Satyapragyan	Bias Corrections of ERA5 and ERA5-Land Temperature Using Automatic Weather Station Data in The Higher Central Himalaya: Implications For Hydro-Meteorological and Glaciological Research
91	Smriti Singh	Decadal Snow Cover Dynamics of Satopanth Glacier, Upper Alaknanda Valley, Using NDSI and Landsat Imagery (2014–2024)
92	Tania Basu	Monitoring Snow-Cover Changes in Zaskar Valley Glaciers through Satellite-Based Normalized Difference Snow Index Study.

93	Megha S.B.	Hydrogeochemical Assessment and Water Quality Evaluation of Vadakara Taluk, Kozhikode dist ,Kerala: Implications for Potable use & Irrigation
94	Anurag Maurya	Land Use and Land Cover Dynamics in the Upper Yamuna Basin and Their Implications for Spring Water Resources
95	Shahwaz Khan	How Minerals and Water Chemistry Affect Fluoride Levels: Integrative Mapping of Risk Zones
96	Aman Chaudhary	Thermo–Hydro–Mechanical Response of Bundelkhand Granite under Heating and Quenching Cycles
97	Amit Sharma	Machine Learning Approach for Analysing the Groundwater Quality of Jammu & Kashmir Region, North Western Himalaya
98	Kartik Jagadish Siddamal	Numerical Modelling and Analysis of Jointed Rock Masses in Himalayan Geology
99	Dhruva Jaiswal	Palaeogeographic Reconstruction of Dunagiri and Bagini Glaciers Using Geomorphic Features, Central Himalaya
100	Ankita Kumari	Spatio-Temporal Changes of the Glaciers and Moraine-Dammed Lakes Between 1976 and 2018, Upper Dhauliganga Basin, Central Himalaya, India
101	Ritu Sharma	Assessment of Physical Parameters of Spring in the Dehradun district, Uttarakhand, India
Theme 7: Analytical tools and techniques in Geosciences		
102	Aman Shrivastava	Chemical Characterization of Atmospheric Aerosols in Indian Himalaya: Use of Existing Analytical Tools in Geosciences
103	Swarnendu Roy	Evaluating Geochemical Factors Controlling Tectonic Discrimination of Harzburgites: A Machine Learning Approach
104	Anish Mishra	MuLaMI: Multi-Layer Inversion Using Magnetic Data from the VFSA and Gauss Newton Cross Gradient Approach
105	Nihar Ranjan Sahoo	Estimation of River Discharge using Remote Sensing and Machine Learning
106	Bishal Singh	Predicting Reservoir Permeability Using Petrographic Attributes and Machine Learning: A Case Study of the Tipam Formation, Upper Assam Basin
107	Sanjayan M.S.	Integration of Thermal and Vegetation Indices (TLVI and ATLVI) for Enhanced LULC Classification in the Palakkad Smart City Region
108	Shivendra dwivedi	A Geospatial and Machine Learning based approach for Landslide Hazard Zonation along NH-109K (India)

109	Supriyavarshini.D	Aquifer Vulnerability Mapping in Coastal Aquifers of Puducherry, India: An Integrated Approach Using Geographic Information System (GIS) and Machine Learning (ML) Techniques
110	Kumari Priya	Geomorphic indicators of subsurface deformation on the Faizabad Ridge, Middle Ganga Plain
111	Rahul Ghosh	Integrated Altimetry and Isotopic Approach to Characterize River–Aquifer Connectivity on a Diverse Spatiotemporal Scales in the Ganges River Basin
112	Vishesh Gupta	A Comparative Assessment of Machine Learning models for Advanced Flood Susceptibility Mapping in the Karmanasa River Basin, Ganga Plain India
113	Shabana Ebrahim	Exploring Ma'adim Vallis, Mars: A Morphometric and Mineralogical Perspective
114	Ananya Anandharaman	Seismic Noise Source Localisation via Sensor Array for Gravitational Wave Detectors

N.B. - You must paste your poster against the allotted board number before 9 am (12th Nov. 2025)

All posters Lightning Talk (2 mins. each) on 13th Nov. 2025 at 11:10 hrs