



Recognitions:

Prof. Ashutosh Sharma is appointed as Member of State Committee on Dam Safety (SCDS), Government of Uttarakhand.

Nikunj K. Mangukiya, Ashutosh Sharma* (2025) Most Read Paper 2025 in Water Resources Research (WRR) journal for the paper - Deep learning-based approach for enhancing streamflow prediction in watersheds with aggregated and intermittent observations, Water Resources Research, 61, e2024WR037331. <https://doi.org/10.1029/2024WR037331>

The BIS Student Chapter (Hydrology Department) was selected as the Best Performing BIS Chapter at IIT Roorkee.

Prof. Ashutosh Sharma was appointed as Co-coordinator, Institute Level Committee for TMI-102: Tinkering and Mentoring.

Deepak Pandidurai, PhD Scholar, was Awarded Roland Schlich travel support to attend EGU General Assembly 2026 in Vienna, Austria.

Sanjay Kumar, PhD Scholar, awarded Early Career Scientist's travel support for attending European Geosciences Union General Assembly 2026 at Vienna, Austria during 3rd to 8th May, 2026.

Jaswant Singh, PhD Scholar, awarded Early Career Scientist's travel support for attending European Geosciences Union General Assembly 2026 at Vienna, Austria during 3rd to 8th May, 2026.

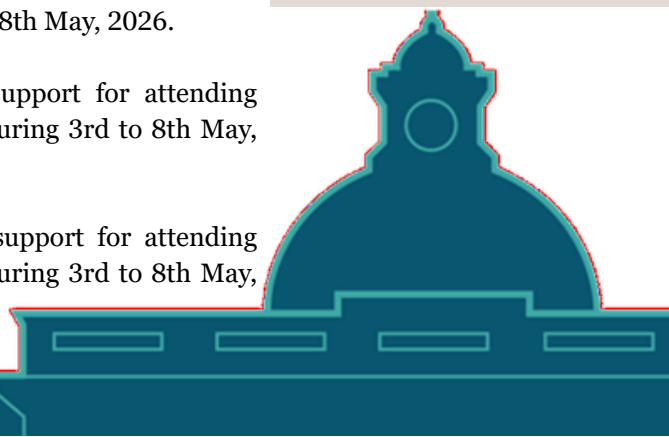
Shruti Singh, PhD Scholar, awarded Early Career Scientist's travel support for attending European Geosciences Union General Assembly 2026 at Vienna, Austria during 3rd to 8th May, 2026.

Shravani Yadav, PhD Scholar, awarded Early Career Scientist's travel support for attending European Geosciences Union General Assembly 2026 at Vienna, Austria during 3rd to 8th May, 2026.

Gopeshwar Sahu, PhD Scholar, awarded Early Career Scientist's travel support for attending European Geosciences Union General Assembly 2026 at Vienna, Austria during 3rd to 8th May, 2026.



Prof. Ankit Agarwal inducted as Member of the Global Young Academy (2026–2030) at the GYA Annual General Meeting in Bremen, Germany — recognising scientific excellence, societal engagement, and global academic leadership.



**Visit:**

Prof. Qingguo Li from Queen's University (Canada) visited the Department of Hydrology on May 6, 2026.

Granted Patents:

Name of the inventors: Bhaskar Jyoti Deka, Nagendra Kumar Jilagam, and Gaurav Vaghela, Title: A method of preparing plasma-engineered fluorine free silanes for enhancing superhydrophobicity of membranes, Application No.: 202311067500 (IN), Patent no. 591032, Sl. No. 011230681

Name of the inventors: Ravindra Pandey, Bhaskar Jyoti Deka, Yogesh Kumar and Shubham Ketan Sharma, Title: A method of synthesizing covalent organic framework based polymer beads , Application number: 202411055455 (IN), Patent no. 591529, Sl. No. 011230886

Name of the inventors: Amit C. Bhosale, Bhaskar Jyoti Deka, Akshay Sharma, Samrudh Devanahalli Bokkassam, Title: A thermal fluid and a method for producing the same , Application number: 202511080708 (IN), Patent no. 592998, Sl. No. 011231503

Research Stay/ Academic Visit:

Geethika Moorthy, PhD scholar, did a short research stay at the Institute of Ecology, Technische Universität Berlin, from 01.05.2026 to 30.06.2026, hosted by Prof. Eva Paton, as part of KA 171, an Erasmus+ collaboration between TU Berlin and IIT Roorkee.

Conference Publication/Presentations:

Dixit, S., Subramanian, S. S., & Sen, S. (2026). Exploring the role and connections between rainfall and soil moisture over cascading hazards in the Himalayas (No. EGU26-10404). EGU General Assembly 2026, Vienna, Austria, 3–8 May 2026, EGU26-20573, <https://doi.org/10.5194/egusphere-egu26-10404> , 2026.

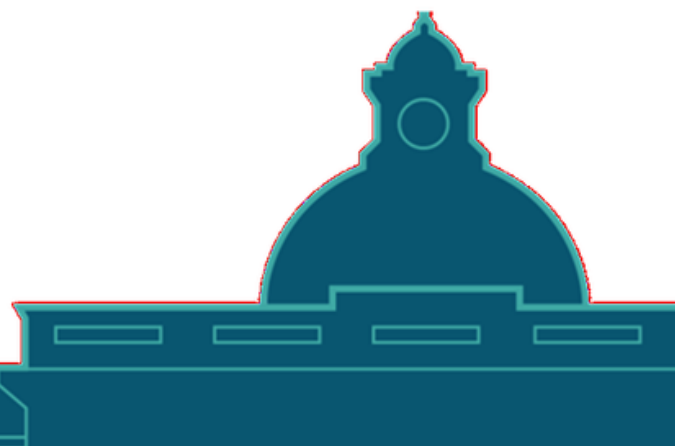
Das, B., Mangain, S., Roy, A., Sharma, A., Sen, S., and Mukherjee, S.: Wildfire Severity and Post-Fire Hydrological Responses in a Central Himalayan Watershed: Integrating Remote Sensing and SWAT, EGU General Assembly 2026, Vienna, Austria, 3–8 May 2026, EGU26-1102, <https://doi.org/10.5194/egusphere-egu26-1102>, 2026.

Saxena, N. and Sen, S.: Advancing Rating Curve Generation in High-Gradient Rivers: Comparing Power Law, Spline, and Bayesian Approaches of Rating Curve Generation, EGU General Assembly 2026, Vienna, Austria, 3–8 May 2026, EGU26-1079, <https://doi.org/10.5194/egusphere-egu26-1079>, 2026.

Moorthy, G. and Agarwal, A.: Modelling Framework for Composite Vulnerability Index incorporating Game Theory, EGU General Assembly 2026, Vienna, Austria, 3–8 May 2026, EGU26-20573, <https://doi.org/10.5194/egusphere-egu26-20573>, 2026.

Pandidurai, D. and Agarwal, A.: Structural Characteristics of Moisture Transport Systems over the Indian Subcontinent during the Summer Monsoon, EGU General Assembly 2026, Vienna, Austria, 3–8 May 2026, EGU26-1034, <https://doi.org/10.5194/egusphere-egu26-1034>, 2026.

Prof Brijesh K Yadav presented the study “Impact of agro-industrial expansion on heavy metal contamination in water resources of a poorly gauged basin” by Prabhat Dwivedi and Brijesh Kumar Yadav during the EGU-2026 General Assembly.



Publication:

Singh, B., & Yadav, B. K. (2026). Hydrogeochemical signatures and pollution sources in limestone mining landscapes: environmental and health risk perspectives. *Environmental Geochemistry and Health*, 48(10), 428. <https://doi.org/10.1007/s10653-026-03328-z>, Q1 (IF=4.3)

Yadav, B. K., Keshariya, A., Tripathi, D., & Verma, A. (2026). Freshwater recharge-driven remediation of coastal saline aquifer: Insights from hydrogeological and hydrochemical analysis. *Regional Studies in Marine Science*, 105167. <https://doi.org/10.1016/j.rsma.2026.105167>, Q1 (IF=2.7)

Kumar, A., Kumar, M., Singh, R., & Yadav, B. K. (2026). Towards enhancing performance of vermifilters: A review on influencing factors and innovative optimization approaches. *Journal of Water Process Engineering*, 91, 110467. <https://doi.org/10.1016/j.jwpe.2026.110467> Q1 (IF=6.6)

Yadav, S., & Yadav, B. K. (2026). Unveiling the Transport Behaviour of Microplastics through Unsaturated Porous Media: Effect of Infiltration Rate, Grain Size and Polymer Type. *Physics and Chemistry of the Earth, Parts A/B/C*, 104586. <https://doi.org/10.1016/j.pce.2026.104586> Q1 (IF=4.1)

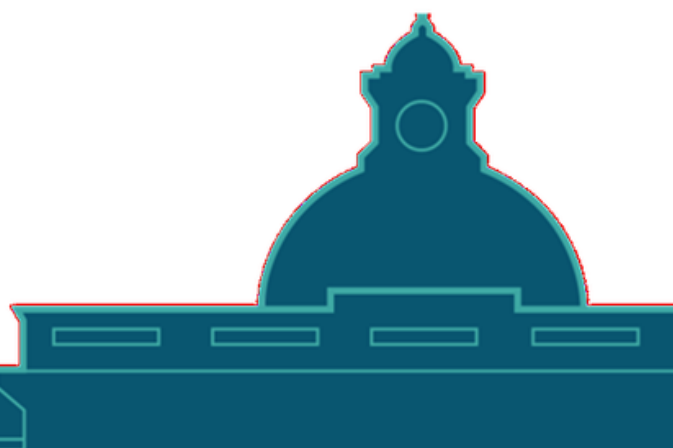
Das, S., Jain, M. K., Das, S., Gupta, V., Saha, A., & Dobre, M. (2026). Two Decades of Climate and Land Use Change Reshape Water Erosion Patterns Across India. *European Journal of Soil Science*, 77(3), e70366. <https://doi.org/10.1111/ejss.70366> Q1

Das, B., Sen, S., & Mukherjee, S. (2026). Modeling climate-induced changes in hydrometeorological components and analyzing future extreme weather events using SPI in the Kosi River Basin, Uttarakhand. *Theoretical and Applied Climatology*, 157(6), 345. <https://doi.org/10.1007/s00704-026-06284-x>

Mangukiya, N. K., Sahu, G., Gupta, S., & Sharma, A. (2026). Benchmarking and selecting optimal hydrological models for large-sample applications considering complexity and uncertainty. *Water Resources Research*, 62(7), e2026WR044753. <https://doi.org/10.1029/2026WR044753> Q1

Pandidurai, D., Raghuvanshi, A. S., Agarwal, A., & Trigo, R. M. (2026). Sequential Moisture Dynamics Driving Multi-Day Flood-Producing Rainfall Across India. *International Journal of Climatology*, e70462. <https://doi.org/10.1002/joc.70462>

Yang X, Zhang X, Agarwal A, Ajin RS, Bracegirdle TJ, Convey P, Engbers R, Frey MM, Garbarini EM, Gorodetskaya I, Gong X, González-Herrero S, Li G, Lund MT, Miller LA, Persson O, Quilestino-Olario R, Radenz M, Saini SS, Sardana D, Štůsek R, Tarn MD, Weiss A (2026). Polar winter processes: an under-represented research focus within the coupled Earth System. *Advances in Atmospheric Sciences* (Accepted).



Invited Talks /Lectures:

Prof Brijesh K Yadav delivered a keynote talk on “Sustainable Groundwater Management Strategies for Coastal and Terrestrial Aquifers in Changing Climatic Conditions” during the International Symposium on “Asia’s Water and Food Security” at BITECH, Bangkok, Thailand during May 20-22, 2026

Prof. Sumit Sen delivered a Plenary talk on " The Himalayan Water Paradox – Too Much or Too Little" during International Conference on Climate and Disaster Resilient Himalayas, ICCDRH-2026, at IIT Mandi. June 23-25, 2026.

Prof. Sumit Sen, Professor, Department of Hydrology, IIT Roorkee, and Dr. Aliva Nanda, Assistant Professor, IIT Mandi, delivered expert sessions at the ICCDRH-2026 Pre-conference Workshop on "Advances in Hydrological Monitoring: Field Experimentation in a Himalayan Living Laboratory," organized at IIT Mandi on 22nd June, 2026.

Prof. Ashutosh Sharma delivered an invited lecture on "Remote Sensing, GIS and its Applications" during Induction Course for BEG Officers in Emerging Technologies at IIT Roorkee, April 20, 2026.

Prof. Ashutosh Sharma delivered an invited lecture on "Emerging Artificial Intelligence Tools for Hydrological Predictions: Large-sample streamflow prediction using LSTM" during AICTE sponsored 24 weeks AICTE-QIP-PG certificate programme on Climate Change and Hydrometeorological Extremes: AI/ML Enabled Data-Driven Approaches, Impacts, and Resilient Strategies, MANIT Bhopal, June 13, 2026.

Prof. Ashutosh Sharma delivered an invited keynote talk on "Large-Sample Hydrological Modeling for Indian Catchments: From Machine Learning to Hybrid Physics-Based + ML Models" during International Conference on Climate and Disaster Resilient Himalayas, ICCDRH-2026, at IIT Mandi. June 23-25, 2026.

Prof. Bhaskar Jyoti Deka was invited to deliver his talk on “PFAS-free surface engineering of membranes for enhanced vapor transport and emerging pollutant rejection” during International Symposium on Emerging Contaminants in Water with Special Focus on Arsenic and Fluoride Contamination, organized by Department of Chemical Engineering, Indian Institute of Technology Roorkee, Roorkee, India, from 29th to 30th May 2026.

Deepak Pandidurai, PhD scholar, delivered a talk on "Atmospheric moisture characteristics of multi day extreme precipitation induced floods in Indian Himalayas" in the conference "Climate Samvaad 2026" held at Central University of Jammu on 25-27 May 2026.

