

Curriculum Vitae

Dr. Pankaj Chauhan, Ph.D

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Research Gate : <https://www.researchgate.net/profile/Dr-Pankaj-Chauhan>

Google scholar : <https://scholar.google.com/citations?user=wiWNf-oAAAAJ&hl=en>



Research field & specialization

Glaciology, Hydrometeorology, Natural Hazards, Climate Change, Machine Learning & IoT, Information Technology, Remote Sensing & GIS

Work experience

Scientist –C & Asst. Professor AcSIR at Wadia Institute of Himalayan Geology, Dehradun (2024-Till date)

Scientist –B at Wadia Institute of Himalayan Geology, Dehradun (2020-2023)

Post Doc Researcher at Wadia Institute of Himalayan Geology (2018)

Tech. Officer/ Researcher at Centre for Glaciology, Wadia Institute of Himalayan Geology (2013)

JRF/ SRF at Forest Survey of India, Dehradun, Ministry of Environment & Forest, Govt. of India (2006)

GIS Analyst, at Geo-spatial data centre, Survey of India, Dehradun, Govt. of India (2003)

PhD Awarded

Awarded Ph.D. on the topic of '*Hydro-geomorphological study of Tons watershed in Mussoorie Hills*' from School of Earth Science, H.N.B., Garhwal University, Uttarakhand, INDIA

Academic profile

Examination	Board/ University	Year
Ph.D.	Hydrology, H.N.B. Garhwal University, Srinagar Garhwal	2014
M.Sc.	Geo-informatics, VMRF, Salem, TN	2014
M.Sc.	Information Technology, H.N.B. Garhwal University, Srinagar Garhwal	2008
PG, Diploma	Higher Diploma in Software Engineering, APTECH (Infotech_Pvt. Ltd)	2004
Masters in Geography	Masters in Geography, H.N.B. Garhwal University, Srinagar Garhwal	2002

Award / Fellowship

1. Fellowship of **Coalition for Disaster Resilient Infrastructure (CDRI)** for the year **2024-2025**, funded by **National governments, UN agencies** and programmes. **Cost : 15000 USD**
2. Awarded SERB International Research Experience (**SIRE**) fellowship to visit (**JAPAN**) for the year **2023-2024** supported by the **Science and Engineering Research Board (SERB), DST, New Delhi**. **Cost: 16 Lakh**
3. **Best scientist of the year award 2020**, from **Shri Paramhans Education & Research Foundation, Delhi (2020)**.
4. **B V Ramana Best Paper Award** by Association of Agrometeorologists Gujarat, India for the year (2018).
5. Wadia Institute's **Best Worker Awards** continuous from (2009 to 2013).
6. **ONGC** for meritorious student fellowship award (2002).

Membership

- Membership of Institute of Indian Geographers, Dept. of Geography, University of Pune-411007 (India).
- Life time Membership of “The International Society for Environmental Information Sciences” 4246 Albert Street, Suite 413, Regina, Saskatchewan S4S 3R9, Canada.
- Member of IAWEES (International Association for Water, Environment, Energy, and Society, India. (Reg. No. IAWEES2020001176).

Editorial Board

Reviewer of

- ICONARP International Journal of Architecture and Planning
- Environmental Research Letter RL IOP
- Environmental Research Communications IOP
- Environmental Management
- Environment, Development and Sustainability
- International Conference on Water Resource and Environment (WRE 2024).
- Sixth International Conference on Water Resource and Environment (WRE 2020).
- Indonesian Journal of Geography
- Journal Water Resources Management
- Journal of the Geological Society of India
- Environmental Monitoring and assessment
- Theoretical and Applied Climatology
- Environmental Sciences and Pollution Research
- Discover Water
- Arabian Journal of Geosciences
- Water Conservation Science and Engineering
- American Jour of Climate Change

Invited Speaker

- Speaker, in August, 2020 of AICTE Sponsored, (Training and Learning Academy) Faculty Development Program (FDP) on Sustainable Engineering, Organized by Gaya of Civil Engineering, Gaya.
- Invited Lecture delivered on 19.11.2022 in 21 days DST-NGP sponsored training program on Geospatial Technologies scheduled to be held between November 10-30, 2022 at Department of Civil Engineering, Graphic Era (Deemed to be University, NAAC A+), Dehradun, Uttarakhand. Titled on “Remote Sensing in Geosciences”
- Lecture delivered on 09.09.2022 in the event of the “Himalaya Diwas”, titled “The Himalaya: Development and Destruction.”
- Lecture delivered on titled “Man and Environment” at Govt. Inter collage Khati, Kapkot, Bageshwar, Uttarakhand on 07.02.2023.
- Lecture delivered on titled “The Himalaya: Development or Destruction and the role of the early warning system” at HNB Garhwal University, Srinagar Garhwal on the golden jubilee celebration of the university on 02.03.2023.
- WIHG stall exhibited from 1.3.23 to 3.3.23 at HNB Garhwal University, Srinagar Garhwal on the golden jubilee celebration of the university.

External Research Fund received & Project Handled

- Principal Investigator (PI) in the DST, SERB funded project, titled “Hydrological cycle analysis in valleys of Pindari-Kafni glaciers, Kumaun Himalaya” 2016-2020 (**Cost Rs. 20 Lakh**).
- Worked as an associate in the DST young scientist project, titled 'micrometeorological measurements and modelling experiments in the Pindari glacier' 2015-2018 (**Cost Rs. 25 Lakh**).
- Fellowship of SERB International Research Experience (SIRE) for the year 2023-2024 supported by the Science and Engineering Research Board (SERB), Department of Science and Technology,

Government of India, with Rajib Shaw at Graduate School of Media and Governance, Keio University, Japan. **(Cost: 16.5 Lakh)**

- Fellowship of Coalition for Disaster Resilient Infrastructure (CDRI) for the year 2024-2025, funded by National governments, UN agencies and programmes. **(Cost: 15000 USD)**

Member of important Committees

- Member, Stores & Purchase, non-consumable physical verification committee (2021-22)
- Member of WIHG internal purchasing committee (2021-22).
- Committee Member for inspection of items to be procured through GEM/ store. Order dated 2021-22.
- Acted as an evaluator for 29th National Children Science congress (NCSC) 2021-22 held at KV, IIP, Mohakkampur, Dehradun.
- Chairman, of Technical evaluation committee for AMC of computer and peripherals in 2022.
- Member of Physical verification of consumable and non-consumable store items (2022-23).
- Member of Physical verification of consumable and non-consumable store items (2023-24).
- Technical evaluation committee for the procurement of the instruments- (2023-24)
- Expert member of the Ganga/ Yamuna flood plain committee, Uttarakhand Government-(2023-25).
- Expert member of the state Ganga committee, Uttarakhand Government- (2023-24).
- Expert member of WIHG DAC committee 2024.

Country visited

India, Nepal, Japan, Taiwan, Singapore, Hong Kong

National/ International Collaboration

- Dr. Reet Kaml Tiwari, IIT Ropar, India
- Dr. S.K Srivastava, IIRS, Dehradun, India
- Dr. Dharmaveer Singh, Symbiosis International University, Pune
- Dr. Christoph Mayer, University of Tübingen, Germany
- Dr. Rizwan Ahmad, AMU, India
- Dr. Vikram Kumar Gaya Engineering Collage, Bihar, India
- Dr. Sudhir Kumar Singh, Allahabad University, Prayagraj U.P).
- Dr. M.E. Akiner, University, Antalya, Turkey
- Prof. Ram L. Ray, Prairie View A&M University TX 77446, US
- Prof. Rajib Shaw, Keio University, Japan

Supervision/Guidance to Ph.D. / M.sc/ M. Tech. students: 25

Training: 20

Publications

- SAIN, K., CHAUHAN, P*, BISHT, P. and VAIDESWARAN, S.C., 0 Cloudburst-induced debris flows and flash floods at Lasko valley in Pithoragarh district, India-Nepal border. *Himalayan Geology Journal (IF 1.1)*.
- Alam, M., Chauhan, P*, Thakural, L.N., Malviya, D., Ahmad, R. and Sajid, M., 2025. Identification of groundwater recharge potential zone using geospatial approaches and multi criteria decision models in Udham Singh Nagar district, Uttarakhand, India. *Advances in Space Research, (IF 2.8)* 75(2), pp.1931-1944.
- Akiner, M.E., Chauhan Pankaj*, Singh S.K. 2024. Evaluation of Surface Water Quality in the Betwa

River Basin through the Water Quality Index Model and Multivariate Statistical Techniques. *Environmental Science and pollution Research*; (IF 5.8)

- **Chauhan Pankaj.**, Akiner, M.E., Shaw, Rajib., Sain Kalachand **2024**. Forecast future disasters using hydro-meteorological datasets in the Yamuna River Basin, Western Himalaya: Using Markov Chain and LSTM approaches. *Artificial intelligence in geosciences*; (AIF 2.2)
- Garg, P.K., Mehta, M., Shukla, A., **Chauhan, P.**, Kesarwani, K. and Mukherjee, S., 2023. Supraglacial geomorphology of Companion Glacier, central Himalaya: evolution, controls and consequences. Garg et al., 2023; *Frontiers in Earth Science*; (IF 2.9).
- Singh, D., Karan, K., Singh, S.K., **Chauhan, P.** and Berndtsson, R., 2023. Fusing Morphometric Characteristics with Extreme Precipitation Indices for Identifying the Most Vulnerable Sub-basin at Risk of Flooding. *Journal of Hydro-environment Research*, 50 (44-56). (IF 2.8)
- **Chauhan, P.**, Sharma, J., Bhardwaj, P., Mehta, M., Shah, R.A., Singh, O. and Sain, K., **2023**. Comparative analysis of discharge and sediment flux from two contiguous glacierized basins of Central Himalaya, India. *Environmental Monitoring and Assessment*, 195(6), p.729. (IF 3.307)
- Rastogi, T., Singh, J., Singh, N., **Chauhan, P.**, Yadav, R.R. and Pandey, B., **2023**. Temperature variability over Dokriani glacier region, Western Himalaya, India. 664 (8), p. 33-41. *Quaternary International*. (IF 2.454)
- Sain, K., Mehta, M., Kumar, V., Gupta, V. and **Chauhan, P.**, **2023**. A Climatic Surprise–Slope Instability Triggered by Heavy Rain in Maldevta Region, Dehradun, Uttarakhand, on 20 August, 2022. *Journal of the Geological Society of India*, 99(3), pp.317-320. (IF 1.466)
- Singh, D., Vardhan, M., Sahu, R., Chatterjee, D., **Chauhan, P.** and Liu, S., **2023**. Machine-learning-and deep-learning-based streamflow prediction in a hilly catchment for future scenarios using CMIP6 GCM data. *Hydrology and Earth System Sciences*, 27(5), pp.1047-1075. (IF 6.617)
- Kumar, N., Singh, S.K., Singh, P.K., Gautam, D.K., Patle, P., Pandey, H.K. and **Chauhan, P.**, **2023**. Water accounting of a trans-boundary river basin using satellite observations and WA+ framework. *Physics and Chemistry of the Earth, Parts A/B/C*, 129, p.103343. (IF 3.311)
- **Chauhan, Pankaj.** and Ahmad, R., 2022. Hydrological Response of Factors Affecting Rainfall Water Discharge and Water Balance: A Case Study of Tons Watershed. In Water Quality, Assessment and Management in India (pp. 129-155). Cham: *Springer International Publishing. Book chapter*
- **Chauhan, Pankaj.**, Sain, Kalachand., Mehta, M., and Singh S.K., **2022**. An investigation of cloudburst, triggered landslides and flash floods in Arakot Region of Uttarkashi District, Uttarakhand India. *Geological Society of India*, (IF 1.466)
- **Chauhan, Pankaj.**, Malviya, D., Sain, K., Ray, R.L., Singh, S.K. and Singh, D., **2022**. Assessing the vulnerability of watersheds to environmental degradation in the Lesser Himalayan region using satellite data and a series of models. *Geocarto International*, pp.1-28 (IF 4.889). <https://doi.org/10.1080/10106049.2022.2142958>
- **Chauhan, Pankaj.**, Akiner, M.E., Sain, K. and Kumar, A., **2022**. Forecasting of suspended sediment concentration in the Pindari-Kafni glacier valley in Central Himalayan region considering the impact of precipitation: using soft computing approach. *Arabian Journal of Geosciences*, 15(8), pp.1-18. (IF 1.827)
- Nilendu Singh and **Pankaj Chauhan** et al. **2022**. Tree isotopic records suggest seasonal importance of moisture dynamics over glacial valleys of the Central Himalaya. *Frontiers in Earth Science*, June 2022. (IF 3.498).
- Singh, N., Singh, J., Gupta, A.K., Bräuning, A., Dimri, A.P., Ramanathan, A.L., Sharma, V., Tiwari, R.K., Chakraborty, J.S., **Chauhan, P.** and Shukla, T., **2021**. Climate-driven acceleration in forest

evapotranspiration fuelling extreme rainfall events in the Himalaya. *Environmental Research Letters*, 16(8), p.084042. (IF 6.793).

- Ahluwalia, R.S., Rai, S.P., Meetei, P.N., Kumar, S., Sarangi, S., **Chauhan, P.** and Karakoti, I., **2021**. Spatial-diurnal variability of snow/glacier melt runoff in glacier regime river valley: Central Himalaya, India. *Quaternary International*, 585, pp.183-194. (IF 2.2)
- Vikram Kumar, Sumit Sen, **Pankaj Chauhan** **2020**. Geo-morphometric prioritization of Aglar micro watershed in Lesser Himalaya using GIS approach. *Modeling Earth Systems and Environment*, pp.1-11. (IF 3.0)
- Jayendra Singh, Nilendu Singh, **Pankaj Chauhan**, Ram R. Yadav, Achim Bräuning, Christoph Mayr and Tanupriya Rastogi **2019**. Tree-ring $\delta^{18}O$ records of abating June-July monsoon rainfall over the Himalayan region in the last 273 years. *Quaternary International*, 532, pp.48-56. (IF 2.2)
- Nilendu Singh, MohitSinghal, SudershanChhikara, Indira Karakoti, **Pankaj Chauhan** and D. P. Dobhal **2019**. Radiation and energy balance dynamics over a rapidly receding glacier in the central Himalaya. *International Journal of Climatology*, DOI: 10.1002/joc.6218 (IF 3.609)
- Rizwan Ahmed, **Pankaj Chauhan** and SK Srivastava **2018**. Groundwater Study in Eastern Dehradun Valley and adjoining area using Remote Sensing & GIS Observation. *Journal of Himalayan Geology*. Vol. 39, No.02 ISSN: 0971-8966. (IF 1.2)
- P. Raja, Nilendu Singh, C. V. Srinivas, Mohit Singhal, **Pankaj Chauhan**, Maharaj Singh & N. K. Sinha **(2017)**. Analyzing energy–water exchange dynamics in the Thar desert. *Journal of Climate Dynamics*. DOI 10.1007/s00382-017-3804-9 (IF. 4.901)
- **Pankaj Chauhan**, Nilendu Singh, Devi DattChauniyal, Rajeev Ahluwalia and MohitSinghal **(2017)**. Differential behavior of a lesser Himalayan watershed in extreme rainfall regimes. *Journal of Earth System Science*. 126:22, DOI 10.1007/s12040-017-0796-0. (IF. 1.912)
- Reet Kamal Tiwari, P. K. Garg, Aparna Shukla, Rajiv S. Ahluwalia, Nilendu Singh, **Pankaj Chauhan**, **2016**. A geomorphic and morphometric analysis of surface ice velocity variation of different valley type glaciers. International conference on LandSurface and Cryosphere Remote Sensing III, part of *SPIE Asia-Pacific Remote Sensing*, April- 4-7, 2016, edited by Reza khanbilvardi, AswagoshGanju, A.S. Rajawat, Jing M Chen at Space Application Centre, Ahmedabad, India. (IF. 0.937)
- **Pankaj Chauhan**, Devi Datt Chauniyal, Nilednu Singh, Reet Kamal Tiwari. **2016**. “Quantitative geomorphometric and land cover based micro-watershed prioritization in the Tons river basin of the lesser Himalaya“. *Journal of Environmental Earth Sciences* 75:498. DOI 10.1007/s12665-016-5342-x. (IF: 2.8).

Chapter in Books:

- **Pankaj Chauhan** & Rizwan Ahmed (2022) Hydrological Response of factors affecting Rainfall, water discharge and water balance – A case study of Tons watershed (*Springer Publication*) Edited by: **RR Yadav et al.**
- **Pankaj Chauhan et al., 2024**. Quantification of potential evapotranspiration from Pindari-Kafni glacier valleys in Kumaun central Himalaya. A book Chapter Accepted in the book titled “Sustainable Development A Geospatial and Statistical Perspective, Edited by Qazi Mazhar Ali, Irfan Ali, Rizwan Ahmad, Prasenjit Chatterjee” *CRC Press (A Taylor & Francis Group)*