Dr. Lakhvinder Kaur

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Assistant Professor

Department of Environmental Science

Sri Guru Tegh Khalsa College,

University of Delhi, India

Ph D (Environment Science) from Panjab University, Chandigarh

M.Sc. (Masters in Environment Science) from Panjab University, Chandigarh

Member: Society of Young Agriculture and Hydrology Scholars of India (SYAHI)

Professional Qualifications and Skills:

- Selected for Dr. DS KOTHARI Post Doctoral Fellowship, UGC, India 2020-2021.
- Qualified for Lecturer-ship through National Eligibility Test (NET-Dec 2015) conducted by University Grants Commission (UGC) in Environmental Sciences.
- Qualified National Eligibility Test (NET-2014) conducted by Agriculture Scientist Recruitment Board (ASRB) in Environmental Sciences.

Research Interests

- Enviromental Hydrology, hydrogeology, geochemistry, and Pollution
- Geodiversity, river morphometry and landslides
- Droughts, water resources and agriculture
- Use of geospatial technology in water resource management and statistical modeling

Experience

- **Assistant Professor (21st October 2022- Present):** Currently working as an Assistant Professor (Department of Environmental Sciences) in Sri Guru Tegh Bahadur Khalsa College, University of Delhi, India.
- **Post-Doctoral Fellow (21st September 2021-19th October 2022):** Worked as Dr. D S Kothari Post-Doctoral Fellow in the Department of Geophysics, Kurukshetra University, Kurukshetra, Haryana, India.
- **Research Officer (1st March 2021-20th September 2021):** Worked as a Research Officer under project entitled 'State Specific Action Plan for Chandigarh', a part of National Water Mission, India, Department of Geology, Panjab University, Chandigarh.
- **Resource Person/Guest Faculty (From Jan 2019-May 2019):** Taught Remote Sensing and GIS in Environmental Studies to the Master's students in the Department of Environment Studies Panjab University, Chandigarh, on honorary basis.

  Nature of Job: Teaching and Practical
- **Resource Person/Guest Faculty (From Jan 2018-May 2018):** Taught Remote Sensing and GIS in Environmental Studies to the Master's students in the Department of Environment Studies Panjab University, Chandigarh, on honorary basis.

  Nature of Job: Teaching and Practical
- **Resource Person/Guest Faculty (From July 2017-Dec-2017):** Taught Environmental Science to the Bachelor's students in the Department of Physics, Panjab University, Chandigarh through Department of Environment Studies, Panjab University, Chandigarh, on honorary basis.

  Nature of Job: Teaching and Practical

Research Papers:

- Sidhu, N., **Kaur, L.,** Rishi, M. S., Din, S. N. U., Tewari, K., & Singh, P. (2024). Integrating multivariate hydrogeochemical analysis with human health risk assessment: An inverse geochemical and statistical modeling approach. *Journal of Geochemical Exploration*, 258, 107389. https://doi.org/10.1016/j.gexplo.2024.107389
- **Kaur, L.,** Rishi, M. S., Chaudhary, B. S., Sharma, S., & Pandey, S. (2023). Groundwater hydrogeochemistry and non-carcinogenic health risk assessment in major river basins of Punjab, India. *Environmental Science and Pollution Research*, 30(53), 113335-113363. https://doi.org/10.1007/s11356-023-30157-9
- Singh, P., Rishi, M. S., & **Kaur, L.** (2023). Hydrogeochemical characterization of groundwater under natural and anthropogenically influenced areas located in Upper Ghaggar River Basin, India. *Environment, Development and Sustainability*, 1-23. https://doi.org/10.1007/s10668-023-03687-y
- Din, S. N. U., Rishi, M. S., **Kaur, L.,** Sidhu, N., & Ahluwalia, A. S. (2023). Mapping and identification of potential groundwater development zones of an alluvial aquifer in parts of Ghaggar and Upper Yamuna basins in India. *Environmental Monitoring and Assessment*, 195(8), 973. https://doi.org/10.1007/s10661-023-11579-x
- **Kaur, L.,** Rishi, M. S., & Chaudhary, B. S. (2022). Assessment of meteorological and agricultural droughts using remote sensing and their impact on groundwater in an agriculturally productive part of Northwest India. *Agricultural Water Management,* 274, 107956. https://doi.org/10.1016/j.agwat.2022.107956
- Bajala, V., Rishi, M. S., **Kaur, L.,** & Sharma, G. (2022). Assessment of Geodiversity of Parbati River Basin in North-Western Himalayan Region, India. *Geocarto International*, (just-accepted), 1-14. https://doi.org/10.1080/10106049.2022.2082557
- Singh, P., Rishi, M. S., & **Kaur, L.** (2022). Multi-parametric analysis of groundwater quality to assess human health risk and hydrogeochemical processes in an agriculturally intensive alluvial aquifer of Northwest India. *International Journal of Environmental Analytical Chemistry*, 1-19. https://doi.org/10.1080/10106049.2022.2082557
- Gupta, H., **Kaur, L.,** Asra, M., Avtar, R., & Reddy, C. S. (2021). MODIS NDVI Multi-Temporal Analysis Confirms Farmer Perceptions on Seasonality Variations Affecting Apple Orchards in Kinnaur, Himachal Pradesh. *Agriculture*, *11*(8), 724. https://doi.org/10.1080/10106049.2022.2082557
- **Kaur, L.**, Rishi, M.S., Arora N.K., (2021) Deciphering pollution vulnerability zones of River Yamuna in relation to existing land use land cover in Panipat, Haryana, India. *Environmental Monitoring and Assessment,* 193, 120. https://doi.org/10.1007/s10661-020-08832-y
- **Kaur, L.,** Rishi, M. S., & Siddiqui, A. U. (2020). Deterministic and probabilistic health risk assessment techniques to evaluate non-carcinogenic human health risk (NHHR) due to fluoride and nitrate in groundwater of Panipat, Haryana, India. *Environmental Pollution*, 259, 113711. https://doi.org/10.1016/j.envpol.2019.113711
- **Kaur, L.,** Rishi, M. S., Singh, G., & Thakur, S. N. (2020). Groundwater potential assessment of an alluvial aquifer in Yamuna sub-basin (Panipat region) using remote sensing and GIS techniques in conjunction with analytical hierarchy process (AHP) and catastrophe theory (CT). *Ecological Indicators*, *110*, 105850. (https://doi.org/10.1016/j.ecolind.2019.105850)
- Singh, G., Rishi, M. S., Herojeet, R., **Kaur, L.,** & Sharma, K. (2019). Multivariate analysis and geochemical signatures of groundwater in the agricultural dominated taluks of Jalandhar district, Punjab, India. *Journal of Geochemical Exploration*, 106395. (https://doi.org/10.1016/j.gexplo.2019.106395).
- Singh, G., Rishi, M. S., Herojeet, R., **Kaur, L.,** & Sharma, K. (2019). Evaluation of groundwater quality and human health risks from fluoride and nitrate in semi-arid region of northern

India. *Environmental geochemistry and health*, 1-30. https://doi.org/10.1080/10106049.2022.2082557

- Rishi, M. S., **Kaur, L*.,** & Sharma, S. (2019). Groundwater quality appraisal for noncarcinogenic human health risks and irrigation purposes in a part of Yamuna subbasin, India. Human and Ecological Risk Assessment: An International Journal, 1-21. https://doi.org/10.1080/10807039.2019.1682514
- Sharma, B., Bhardwaj, S. K., Sharma, S., Nautiyal, R., **Kaur, L.,** & Alam, N. M. (2019). Pollution tolerance assessment of temperate woody vegetation growing along the National Highway-5 in Himachal Pradesh, India. Environmental monitoring and assessment, 191(3), 177. https://doi.org/10.1007/s10661-019-7310-x
- **Kaur L.,** Rishi, M. S., Sharma, S., Sharma, B., Lata, R., & Singh, G. (2019). Hydrogeochemical characterization of groundwater in alluvial plains of River Yamuna in Northern India: An insight of controlling processes. Journal of King Saud University-Science, 782. https://doi.org/10.1016/j.jksus.2019.01.005
- **Kaur, L.,** & Rishi, M. S. (2018). Integrated geospatial, geostatistical, and remote sensing approach to estimate groundwater level in North-western India. Environmental Earth Sciences, 77(23), 786. https://doi.org/10.1007/s12665-018-7971-8
- **Kaur, L.,** & Rishi, M. S. (2018). Data on fluoride contamination in potable water in alluvial plains of district Panipat, Haryana, India. Data in brief, 20, 1844-1849. https://doi.org/10.1016/j.dib.2018.09.031
- Sharma, B., Sharma, S., Bhardwaj, S. K., **Kaur, L.,** & Sharma, A. (2017). Evaluation of Air Pollution Tolerance Index (APTI) as a tool to monitor pollution and green belt development: A review. Journal of Applied and Natural Science, 9(3), 1637-1643. ISSN : 0974-9411 (Print), 2231-5209 (Online)

Presentations at Conferences

- Presented a paper having title ***'Groundwater vulnerability assessment using DRASTIC and modified-DRASTIC methods from drinking and agricultural perspectives in a part of north western India'*** in **3rd GLP Asia Conference,** held at Hokkaido University, N10, W5, Sapporo, Hokkaido 060-0810, Japan from 14th -17th September 2021.

- Presented a paper having title ***'Assessment of groundwater level using geospatial and geostatistical methods in Panipat district Haryana, India'*** in **13th Chandigarh Science Congress** held at Panjab University from 13-15 March 2019 (National Conference) organised by Panjab University, Chandigarh and CRICK

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https://scholar.google.com/citations?user=BfyFkIYAAAAJ&hl=en
Research Gate Profile Link: https://www.researchgate.net/profile/Lakhvinder-Kaur