Author details and publications

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Publications

- **Current Thesis** (Published/under revision/Under review research papers)
  1. **Kumar, R.**, Gaur, S., Soni, P., Maurya, P., & Ohri, A. (2024). HRU-based Downscaling of GRACE-TWS to Quantify the Hydrogeological Fluxes and Specific Yield in the Lower Middle Ganga Basin. Journal of Hydrology. https://doi.org/10.1016/j.jhydrol.2024.131591
  2. Gaur, S., **Kumar, R.**, Ohri, A., Mishra, S., Gond, A. K., Dwivedi, S. B., Jha, M., Chaturvedi, A., & Singh, B. N. (2023). Study of hydrologically critical subbasins under climate change. Journal of Water and Climate Change. https://doi.org/10.2166/wcc.2023.038
  3. **Kumar, R.**, Ohri, A., & Gaur, S. (2024). Sensitivity of Permissible Aquifer Recharge Capacity towards Hydrogeological and Well Design Parameters. In Journal of Hydrology. https://doi.org/10.1016/j.jhydrol.2025.133438
  4. **Kumar, R.**, Bhattacharjee, R., Gaur, S., & Ohri, A. (2024). GW Sustainability in the Varuna River Basin: Impacts of Climate Change and Population Growth. Journal of Cleaner Production (Accepted) PREPRINT (Version 1) https://doi.org/10.21203/rs.3.rs-5405452/v1

- **Other** (Published research papers)
  1. Bajpai, M., Gaur, S., **Kumar, R.**, Ohri, A., & Piégay, H. (2023). Suitable sites for GW development: a capture map-based approach integrated with weighted overlay analysis. AQUA — Water Infrastructure, Ecosystems and Society, 72(7), 1184–1197. https://doi.org/10.2166/aqua.2023.011
  2. Tewari, A., Singh, P. K., Gaur, S., Mishra, S., & **Kumar, R.** (2024). Cluster-based delineation of optimal sites for managed aquifer recharge: a case study of Lower

Betwa River Basin, India. Environmental Earth Sciences, 83(1), 20. https://doi.org/10.1007/s12665-023-11308-0

3. **Kumar, R**., Tewari, A., Mishra, S., Singh, P. K., & Gaur, S. (2024). Multi-Facet analysis of analytical and numerical models to resolve sustainable artificial recharge rates in unconfined aquifers. Journal of Environmental Management, 362, 121233. https://doi.org/10.1016/j.jenvman.2024.121233
4. Tewari, A., Singh, P. K., Gaur, S., **Kumar, R**., & Mishra, S. (2024). Evaluating GW depletion under natural and induced stresses: a numerical modeling approach toward aquifer sustainability. Journal of Hydroinformatics. https://doi.org/10.2166/hydro.2024.321

- **In preparation** (from current thesis)
  1. **Kumar, R**., Gaur, S., & Ohri, A. (2025). Spatio-temporal variability of River Aquifer Exchanges amid Climate and Anthropogenic Stresses in Varuna River Basin.
  2. **Kumar, R**., Gaur, S., & Ohri, A. (2025). Injection-Induced Enhancement of River Aquifer Exchanges.
  3. **Kumar, R**., Gaur, S., & Ohri, A. (2025). Suitable Aquifer Storage and Recovery Sites for Baseflow Restoration in Varuna River Basin.

- **Conference Proceedings**
  1. **Kumar, R.,** Gaur, S., and Ohri, A.: Parametrization of River Aquifer Exchanges Enhancements in Managed Aquifer Recharge for Baseflow Restoration, EGU General Assembly 2025, Vienna, Austria, 27 Apr–2 May 2025, EGU25-2748, https://doi.org/10.5194/egusphere-egu25-2748, 2025.
  2. **Kumar R.,** Anurag Ohri, and Shishir Gaur. "The Permissible Aquifer Recharge Capacity for Determining Recharge Rates for Aquifer Storage and Recovery." AGU24.
  3. Kachari, J., Gaur S., Bhattarjee, R., Ohri, A., Piegay, H., & **Kumar, R**. (2024) The spatial-temporal insights into the water surface temperature of the kannauj-patna stretch of the river Ganga: a remote sensing perspective. IEEE India Geoscience and Remote Sensing Symposium (InGARSS) (2024).
  4. Bara, A., Dwivedi, S.B., Gaur, S., **Kumar, R.,** Mishra, S., Bajpai, M., & Bhattacharjee, R. (2024). Design and Development of an IoT-based Greenhouse Gas Monitoring System. IEEE India Geoscience and Remote Sensing Symposium (InGARSS) (2024).