

Dr Maithili Mohanty

Assistant Professor

Department of Civil Engineering

National Institute of Technology, Rourkela,

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PROFESSIONAL EXPERIENCE

- **Assistant Professor:** Department of Civil Engineering, National Institute of Technology, Rourkela, Rourkela, Odisha, India (July 2024 – Present)
- **Research Associate III,** Department of Civil Engineering, Indian Institute of Technology Kanpur, September 2023- January 2024

EDUCATION

- **Ph. D., Environmental Engineering:** Indian Institute of Technology Kanpur, India (Graduated in 2023), Supervised by Professor Vinod Tare, CGPA: **9.24**
Thesis Title: Assessment of anthropogenic interventions in watersheds on river health
- **Master of Technology, Environmental Engineering and Management:** Indian Institute of Technology Kanpur, India (Graduated in 2017), Supervised by Professor Vinod Tare, CGPA: **10.00**
Thesis Title: Occurrence of Arsenic in Groundwater: Speciation, Mobilisation and Spatio-temporal Trends
- **Bachelor of Technology, Civil Engineering:** National Institute of Technology Rourkela, India (Graduated in 2012; Best Graduate in Civil Engineering), CGPA: **9.47**

RESEARCH INTERESTS

- Water resources management
- Restoration of watersheds
- Environmental Flows
- Managing Ecosystem services of rivers
- Hydraulic/ Hydrologic modelling
- Water Quality
- Groundwater- surface water interactions

TEACHING EXPERIENCE

- Assistant Professor, Department of Civil Engineering, National Institute of Technology, Rourkela, August 2024-November 2024
 - Process Chemistry for Water and Wastewater Treatment (PG-level)
 - Environment and Safety Engineering (UG-Level)
- Teaching Assistant, Physicochemical Principles and Processes, Indian Institute of Technology Kanpur, Jan 2016-April 2016
- Teaching Assistant, Water Supply and Wastewater Disposal Systems, Indian Institute of Technology Kanpur, Jan 2017-April 2017
- Teaching Assistant, Environmental Quality and Pollution, Indian Institute of Technology Kanpur, Jan 2018-Dec 2019, July 2021-Dec 2022
- Student Tutor, Engineering Graphics, Indian Institute of Technology Kanpur, 2020-21-II

INDUSTRIAL EXPERIENCE

Assistant Design Engineer (Structural),

Mecon India Limited, Ranchi, India

July 2012-July 2015

JOURNAL PUBLICATIONS

- **Mohanty, M.,** and Tare, V. (2022). Anthropogenic Interventions in Watersheds on River Flow Health: Assessment Using Bootstrapped Principal Component Analysis. *Journal of Water Resources Planning and Management*, 148(1), 1–11. [https://doi.org/10.1061/\(asce\)wr.1943-5452.0001499](https://doi.org/10.1061/(asce)wr.1943-5452.0001499)
- **Mohanty, M.,** and Tare, V., (2023) Assessing hydrological alterations in Malibamatso River using River Flow Health Index, *ISH Journal of Hydraulic Engineering*, Taylor and Francis. 68-84; <https://doi.org/10.1080/09715010.2023.2245390>
- **Mohanty, M.** Assessing dam-induced alterations in an Amazonian tributary using river flow health index and planform parameters. *Acta Geophys.* (2024). <https://doi.org/10.1007/s11600-024-01330-6>
- **Mohanty, M.,** and Tare, V., Hydromorphological shifts in the Yamuna River: Post-barrage impacts and water management implications. *Water Supply* 1 June 2024; 24 (6): 2143–2157. <https://doi.org/10.2166/ws.2024.136>
- **Mohanty, M.,** and Tare, V., (2024) Assessing Hydrological Changes in the Ganga River with the Range of Variability Approach, *ISH Journal of*

Hydraulic Engineering, Taylor and Francis.

<https://doi.org/10.1080/09715010.2024.2409178>

- **Mohanty, M.**, and Tare, V., Anthropogenic interventions in diverse watersheds: Insights for Sustainable Water Resource Management, Under Review, Water Resources Management, Springer, 05 Jun 2023.
- Tare, V., Ramachandran, R., **Mohanty, M.**, Patel, S., Gaur, A., Managing Groundwater and River Water Interactions: Impacts of Agricultural Practices on Water Quality, Under Review, Hydrogeology, Springer, 05 August 2024

CONFERENCE PROCEEDINGS

- **Mohanty, M.**, and Tare, V.: Method to quantify hydrological alterations due to anthropogenic interventions: A case study of Peace River, Canada, EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-4054, <https://doi.org/10.5194/egusphere-egu23-4054>, 2023

TRAINING COURSE/ WORKSHOPS

- Summer training course on Remote Sensing, Geographic Information Systems & GPS Applications at Orissa Remote Sensing Applications Centre, May 6 - June 5, 2010.
- Participated in India water impact summit 2018 and 2022, organised by Centre for Ganga River Basin and Management Studies and National Mission for Clean Ganga, Ministry of Jal-Shakti, GOI.

AWARDS AND RECOGNITION

- **Graduate Student Institute Assistantship:** It is a highly competitive monthly assistantship awarded by Ministry of Education-India to pursue doctoral studies in Indian Institute of Technology (IITs).
- **Academic Excellence Award** in MTech in the Environmental Engineering and Management, Indian Institute of Technology Kanpur in the year 2015-16.
- Graduate Aptitude Test Examination (GATE_ score of 664, rank 988 in 2015).
- **Institute Silver Medal** for holding the first position in BTech. in Civil Engineering National Institute of Technology Rourkela for the year 2012.

SKILLS

- Proficient in statistical software packages such as MATLAB and R.
- Proficient in utilizing the Soil and Water Assessment Tool (SWAT) for watershed analysis, water quality assessment, and land management decision-making.
- Knowledge of remote sensing techniques and image analysis using ArcGIS

- Proficient in operating and maintaining modern analytical instruments such as AAS and MPAES.

EXTRA CIRRICULAR ACTIVITIES

- Passed the certificate 'A' examination held in 2005 under the authority of Ministry of Defence GOI.
- Attended the All-India Basic Leadership camp JW Girls held at Railway TA camp, Jamalpur, Bihar from Oct 6-Oct 15, 2004.
- Practiced Odissi dance for seven years, gaining expertise in the traditional Indian dance form.

CAREER BREAK

Maternity Leave

Jan 2020 - Jul 2020 (7 months)

- Took a planned maternity leave to give birth and care for my newborn.
- Maintained open communication with my supervisor throughout the leave and returned to work promptly after the leave period ended.