



Mayank Singh Bhakuni

Assistant Professor

Department of Mathematics

School of Engineering

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1. ABOUT

Dr. Mayank Singh Bhakuni is an Assistant Professor in the Department of Mathematics, School of Engineering, Dayananda Sagar University, Bengaluru. He earned his Ph.D. in Operations Research from Vellore Institute of Technology in 2025, following an M.Sc. in Mathematics from NIT Calicut and a B.Sc. (Hons.) Mathematics from Ramjas College, University of Delhi. Before joining DSU, he served as an Assistant Professor (Fellowship) at VIT Vellore from April 2021 to February 2024. His research focuses on operations research, machine learning, mathematical optimization, humanitarian logistics, post-disaster relocation, fuzzy uncertainty modelling, and multi-criteria decision making. His work has appeared in SCIE/Scopus-indexed journals and conference proceedings, including Engineering Applications of Artificial Intelligence and Computers & Industrial Engineering. He also reviews for international journals and teaches core mathematics courses with emphasis on conceptual clarity and real-world applications.

2. RESEARCH INTERESTS

- AI, machine learning and data analytics for disaster response
- Operations Research and mathematical optimization
- Disaster management and humanitarian logistics
- Fuzzy systems and uncertainty modelling
- Multi-criteria decision making (MCDM)
- Transportation, relocation and resource-allocation modelling

3. ACADEMIC QUALIFICATIONS

- Ph.D. in Operations Research — VIT Vellore, 2025
- MSc Mathematics — NIT Calicut, 2019
- BSc (Hons.) Mathematics — Ramjas College (Delhi University), 2016

4. PROFESSIONAL EXPERIENCE

- Assistant Professor - Dayananda Sagar University, Bengaluru, September 2024 - Present
- Advisor Member - Himalayan Women Awareness and Livelihood Society (HIMWAL), Dehradun, April 2024 - Present
- Assistant Professor (Fellowship) - Vellore Institute of Technology, Vellore, April 2021 - February 2024

5. RESEARCH HIGHLIGHTS

- Publications: Multiple SCIE/Scopus-indexed journal, conference and book publications in operations research, MCDM, disaster relocation and sustainability
- Books/Book Chapters: Two book/chapter contributions, including an SCRS volume (2023) and a Wiley volume on global water scarcity (2025)
- Patents: -
- Research Projects: Ph.D. thesis on post-disaster humanitarian relocation under uncertainty; Master's project on multi-objective linear bi-level programming

- Awards/Recognitions: GATE, Raman Research Award (VIT, 2024); Best Research Paper Award (PCCDS, 2022); Tata Education and Development Trust Scholarship (2017-2018)
- Reviewer Activities: Applied Soft Computing, Computers & Industrial Engineering, Environmental Engineering and Management.

6. SELECTED PUBLICATIONS

1. Bhakuni, M. S., & Dimri, D. (2026). Review of Humanitarian Relocation in Post-Disaster Contexts: Social, Economic and Logistical Perspectives. *Disaster Advances*, 19(5), 100-107.
https://worldresearchersassociations.com/files/wrap/journals/archive/disaster/2026/5/publication_file_fce41ca028ec
2. Bhakuni, M. S., Bhakuni, P., & Das, A. (2025). Stability analysis of multi-criteria decision-making techniques for relief centre location selection: A safety-centric relocation model with cost considerations. *Engineering Applications of Artificial Intelligence*, 144, 109932. <https://www.sciencedirect.com/science/article/abs/pii/S0952197624020918>
3. Bhakuni, M. S., Das, U., Bhakuni, P., Ramesh Kumar, S., & Das, A. (2025). An integrated MCDM-based mathematical modeling approach for sustainable practices of vermicomposting in educational institutions. *Process Integration and Optimization for Sustainability*, 9(2), 575-592. <https://link.springer.com/article/10.1007/s41660-025-00487-x>
4. Dimri, D., Bhakuni, M. S., Joshi, K. K., Sarin, A., & Kumar, A. (2025). Global Perspectives on the Impact of Climate Change on Water Scarcity, Including Regional Vulnerabilities, and Adaptation Strategies. In *Global Water Scarcity: Causes, Impacts, and Management Strategies*, 73-88. <https://onlinelibrary.wiley.com/doi/abs/10.1002/9781394345854.ch04>
5. Bhakuni, M. S., & Das, A. (2024). A cost-efficient relocation model minimizing economic and social disruption of the disaster-affected population of the Kedarnath considering uncertainty. *Computers & Industrial Engineering*, 190, 110005. <https://www.sciencedirect.com/science/article/abs/pii/S0360835224001268>

7. ACADEMIC PROFILES

- Google Scholar: scholar.google.com/citations?user=e6x63ZYAAAAJ
- ORCID: [0000-0002-4086-2831](https://orcid.org/0000-0002-4086-2831)
- Scopus: 58786024200
- ResearchGate: https://www.researchgate.net/profile/Mayank-Bhakuni?ev=hdr_xprf
- Web of Science: -
- LinkedIn: [linkedin.com/in/mayank-singh-bhakuni-814807193](https://www.linkedin.com/in/mayank-singh-bhakuni-814807193)

8. CONTACT

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