



Dr. Paresh Kumar Panigrahi

Assistant Professor

Department of Mathematics

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1. ABOUT

Dr. Paresh Kumar Panigrahi is currently working as an Assistant Professor in the Department of Mathematics, School of Engineering, Dayananda Sagar University, Karnataka, India. Prior to this, he was an Assistant Professor at Vignan's Institute of Information Technology, Visakhapatnam. Also, he was a project fellow in the Department of Mathematics at the International Institute of Information Technology, Bhubaneswar. Dr. Paresh's research interests include fuzzy optimization, numerical optimization under uncertainty, nonlinear analysis and its engineering applications in uncertain environments, as well as machine learning applications in optimization and engineering systems. He has published research articles in several peer-reviewed and SCIE and Scopus-indexed journals, along with contributing book chapters on optimization, fuzzy algebraic systems, and blockchain-based multi-objective modelling. He is also the inventor of a patent. In addition, Dr. Paresh actively serves as a reviewer for reputable journals and as an editorial board member for the JHMIES and MAA journals. He has also served as program chair for ICONIP 2024 and as a session chair at ICCSMM-2025. He has teaching experience spanning university-level mathematics courses and computer programming, including applied operations research, linear algebra, calculus, applied statistics, and MATLAB, R, and Python programming, with an emphasis on active learning and computational integration.

2. RESEARCH INTERESTS

- Fuzzy optimization
- Structural optimization
- Numerical optimization
- Metaheuristic algorithm
- Uncertainty quantification
- Machine Learning and AI

3. ACADEMIC QUALIFICATIONS

- Ph.D. in Mathematics—Vellore Institute of Technology (VIT), Andhra Pradesh, 2025

4. PROFESSIONAL EXPERIENCE

- Assistant Professor—Dayananda Sagar University (Aug 2025 to Till Now)
- Assistant Professor—Vignan's Institute of Information Technology, (March 2025-July 2025)

5. RESEARCH HIGHLIGHTS

- Publications: 12
- Books/Book Chapters: 3 Book chapters
- Patents: 2
- Awards/Recognitions: Research Raman Award, Best Paper Awards, Life membership of ISFSEA
- Academic/Conference Roles: Program Chair for ICONIP 2024 and Session Chair at ICCSMM-2025
- Reviewer/Editorial Activities: Reviewer for reputable journals and editorial board member for the JHMIES and MAA journals.

7. SELECTED PUBLICATIONS

1. Nayak, Sukanta, Paresh Kumar Panigrahi, and Sudipta Priyadarshini. "An alternative approach to solve fuzzy system of equations using normalized type 2 triangular fuzzy numbers." *Fuzzy Information and Engineering* 18.2 (2026): 187-209.
2. Panigrahi, Paresh Kumar, Sukanta Nayak, and S. A. Edalatpanah. "A non-probabilistic strategy to investigate imprecisely defined nonlinear eigenvalue for structural dynamic problems." *New mathematics and natural computation* 22.02 (2026): 307-342.
3. Panigrahi, Paresh Kumar, Sukanta Nayak, and Oscar Castillo. "Gradient like optimization technique with finite element method to quantify the uncertainties under interval type 2 fuzzy environments." *Mathematics and Computers in Simulation* (2025).
4. Panigrahi, Paresh Kumar, and Sukanta Nayak. "Fuzzy Levenberg Marquardt optimization algorithm with inexact line search technique to solve imprecisely defined nonlinear unconstrained optimization problems." *International Journal of Machine Learning and Cybernetics* 16.9 (2025): 5527-5551.
5. Panigrahi, Paresh Kumar, and Sukanta Nayak. "An Adaptive Evolution Algorithm for Uncertain E-Commerce Last-Mile Vehicle Routing Optimization Problems." *2026 1st International Conference on Artificial Intelligence & Machine Learning in Communication and Power Systems (AIMLCPS)*. IEEE, 2026.

8. ACADEMIC PROFILES

- Google Scholar: [Link](#)
- ORCID: 0000-0002-7690-5717
- Scopus: 57750286100
- ResearchGate: [Link](#)
- Web of Science: GNM-6066-2022
- Personal/Professional Website: [Link](#)

9. CONTACT

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