Dr. Shankramma S. Dhavalagimath

Assistant Professor
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1. ABOUT

Dr. Shankramma S. Dhavalagimath is an Assistant Professor in the Department of Mathematics at Dayananda Sagar University (DSU), Bengaluru. She completed her B.Sc. and M.Sc. degrees from Karnataka University, Dharwad, and has been awarded her Ph.D. from the School of Engineering, Dayananda Sagar University (DSU). With over 9 years of teaching experience and 3 years of research experience, she brings a strong foundation of academic and scholarly expertise to her field. Her research interests span Digital Image Processing, Optimization Techniques, and Operations Research, with particular emphasis on interdisciplinary and application-oriented research. She has authored research papers published in reputed journals and presented at international conferences, and her scholarly contributions have been recognized with Best Paper Awards. She also holds a published patent, underscoring her commitment to innovative research and academic excellence.

2. RESEARCH INTERESTS

- Digital Image Processing
- Optimization Techniques
- Operations Research
- Deep Learning and AI-Based Approaches for Image Analysis
- Mathematical and Hybrid Optimization
- Interdisciplinary and Application-Oriented Research

3. ACADEMIC QUALIFICATIONS

- Ph.D. — School of Engineering, Dayananda Sagar University, 2026
- M.Sc. — Karnataka University, Dharwad, 2013
- B.Sc. — Karnataka University, Dharwad,2011

4. PROFESSIONAL EXPERIENCE

- Assistant Professor — Dayananda Sagar University, Bengaluru, 2026 – Till Date
- Assistant Professor — St. Teresa's College, 2021 – 2023
- Lecturer — RNS PU College, Bengaluru, 2018 – 2021
- Assistant Professor — Basaveshwar Science College, Bagalkot, 2013 – 2018
- Teaching Experience — Over 9 years
- Research Experience — Dayananda Sagar University, 2023 – 2026 (3 years)

5. RESEARCH HIGHLIGHTS

- Publications: 8 Research papers in reputed journals and Springer conference proceedings, focused on image processing and deep learning.
- Books/Book Chapters: 2 Chapters in Springer Lecture Notes in Networks and Systems (LNNS) — CIS 2024 and ICRTC 2024 proceedings.
- Patents: 1 Published patent.
- Awards/Recognitions: Best Paper Award(s) for scholarly contributions.
- Academic/Conference Roles: Presented papers at national and international conferences.

6. SELECTED PUBLICATIONS

1.Dhavalagimath, Shankramma S., T. M. Rajesh, and Rakesh Kumar Singh. "Design of an intelligent method for blur classification and adaptive restoration framework for robust aerial image deblurring operations." *International Journal of Information Technology* (2026): 1-10.

2. Dhavalagimath, S.S., Rajesh, T.M., Madhura, K. et al. A Rule-based Optimized Mathematical Framework for High-fidelity Aerial Image Restoration. Int J Comput Intell Syst (2026). https://doi.org/10.1007/s44196-026-01488-5

3. Dhavalagimath, Shankramma S., et al. "A Multi-Stage Hybrid Framework for Blurred Aerial Image Enhancement using Super-Resolution and Contrast-Edge Optimization." *2026 8th International Conference on Inventive Material Science and Applications (ICIMA)*. IEEE, 2026.

4. R. T. M, S. S. Dhavalagimath, A. M. P, A. K. R, A. S. Kodad and C. Tejaswini, "Overcoming Illumination Challenges in Information Retrieval for Multifaceted Background Images," *2025 Third International Conference on Networks, Multimedia and Information Technology (NMITCON)*, BENGALURU, India, 2025, pp. 1-9, doi: 10.1109/NMITCON65824.2025.11188177.

5. R. T M, S. S. Dhavalagimath, A. Hugar, A. Vodnala, D. P. Kamat and K. Iram, "A Dual-Stage Framework for Accurate Blur Detection and Image Deblurring," *2025 3rd International Conference on Inventive Computing and Informatics (ICICI)*, Bangalore, India, 2025, pp. 275-279, doi: 10.1109/ICICI65870.2025.11069651.

6. Dhavalagimath, Shankramma S., T. M. Rajesh, and Rakesh Kumar Singh. "Optimized Feature Refinement Using a GAN-Enhanced Deep Learning Model with RBF-Based Aerial Blurred Image Classification." *Mathematical Modelling of Engineering Problems* 12.6 (2025): 2139.

7. Dhavalagimath, Shankramma S., T. M. Rajesh, and Rakesh Kumar Singh. "Improving Image Restoration with a Hybrid Inverse and Median Filtering Approach." *Congress on Intelligent Systems*. Singapore: Springer Nature Singapore, 2024.

8. Dhavalagimath, Shankramma S., T. M. Rajesh, and Rakesh Kumar Singh. "Advancements in Image Deblurring and Performance Metrics Using Deep Learning Technique." *International Conference on Recent Trends in Computing*. Singapore: Springer Nature Singapore, 2024.

7. ACADEMIC PROFILES

• Google Scholar: https://scholar.google.com/citations?user=23Qnx6gAAAAJ&hl=en&oi=ao
• ORCID: 0009-0003-6201-2592
• Scopus: 59700591300

8. CONTACT

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