

Faculty Profile

Dr. Preethi N Patil is an Assistant Professor at RV College of Engineering, Bengaluru, with over a decade of teaching and research experience. She has previously served at EWIT and BMSIT and was a DST-Inspire Fellow, contributing to a UGC Major Research Project from 2012 to 2016. She holds MCA, M.Tech, and Ph.D. degrees, with university-level 1st rank in PG and six gold medals. Her areas of interest include AR/VR, Artificial Intelligence, Machine Learning, Medical Image Processing, and Pattern Recognition. She has published over 25 papers in Scopus and Web of Science indexed journals and presented papers at national and international conferences. Dr. Preethi has guided numerous workshops in AR/VR and trained over 50 students and faculty members through IEEE initiatives. She completed an advanced AR/VR training program at IIT Madras. Currently, she is guiding three Ph.D. scholars. Her consultancy/Research includes projects worth 40L in the area of Extended Reality and Image processing.

Faculty Photo

Personal Information

- **Name:** Preethi N Patil
- **Designation:** Assistant Professor
- **Department:** Master of Computer Applications
- **Email:** preethinpatil@rvce.edu.in
- **Phone:** 080-68188175

Google Scholar: <https://scholar.google.com/citations?user=IhKup8AAAAAJ&hl=en&authuser=1>

scopus: <https://www.scopus.com/authid/detail.uri?authorId=55813647400>

Domain of Expertise

Research Focus

- **Primary Area:** Image Processing
- **Allied Areas:**
 - Extended Reality
 - Pattern Recognition
 - Machine Learning
 - AI

Academic Qualifications

- **Ph.D.:** Medical Image Processing, Gulbarga University, 2016 (*Thesis Title optional*)

- **M.Tech:** Information Technology, KSOU, 2011
- **MCA:** Computer Applications, Gulbarga University, 2008

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	R V College of Engineering	ASSISTANT PROFESSOR	SEP 18, 2015 to till date
2.	B M S Institute of Technology	ASSISTANT PROFESSOR	Aug 12, 2010 to Jan 21, 2012
3.	EAST WEST Institute of Technology	LECTURER	Aug 10, 2009 to Aug 11, 2010

Publications & Patents

Journal Publications

1. PN Patil, A Dharani, SA Kumar, N Patil, "TensorFlow Based Prediction Model for Classifying Human Blood Smear Microscopic Images as Indicating Presence of Malaria Parasite," *ICTACT Journal on Soft Computing*, 2023.
2. N Patil, PN Patil, PV Rao, "Automatic detection of optic disc using distance regularized level-set segmentation for glaucoma screening system," *International Journal of Intelligent Unmanned Systems*, 2022.
3. Preethi N Patil, Kambar Priyanka, "Nail Deformities Detection and Classification Using Image Processing Technique," *International Journal of Computer Science Engineering and Information Technology Research*, 2021.
4. Ravichandra HN, PN Patil, "Non-Functional Testing on Cloud Computing – A Pilot Survey," *Journal of Emerging Technologies and Innovative Research*, 2021.
5. N Patil, PN Patil, PV Rao, "Convolution neural network and deep-belief network (DBN) based automatic detection and diagnosis of Glaucoma," *Multimedia Tools and Applications*, 2021.
6. N Patil, VP Rao, NP Patil, "Hybrid CNN Assisted Computer Aided Diagnosis System for Glaucoma Detection and Classification: GlaucoNet+," *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 2019.

7. R Ashwin, SS Rakesh, PN Patil, "Sputum Based Pneumonia Detection Through Image Processing," *Digital Image Processing*, 2018.
8. Preethi N Patil, Darshan Shaniyar Naik, "Personality Prediction Using Machine Learning Algorithm for Recruitment," *International Journal of Scientific Research in Engineering and Management*, 2020.
9. Preethi N Patil, Shivanna B Sidareddi, "Android Based My Discount Offer Application," *International Journal of Scientific Research in Engineering and Management*, 2020.
10. Preethi N Patil, Mahalakshmi Mable Naik, "Smart Voting through Face Recognition," *International Journal of Creative Research Thoughts*, 2020.
11. Preethi N Patil, Shuchith M, "Copy-Move Forgery Detection Using Duplication Detection and Robust Detection Algorithm," *International Journal of Creative Research Thoughts*, 2020.
12. GG Rajput, SB Ummature, PN Patil, "Text-Line Extraction from Handwritten Document Images Using Histogram and Connected Component Analysis," *International Journal of Computer Applications*, 2015.
13. GG Rajput, PN Patil, "A Comparative Study on Optic Disc Localization with Application to Diabetic Retinopathy in Fundus Images," *International Journal of Computer Applications*, 2014.
14. Preethi N Patil, Dr. G. G. Rajput, "Detection of Exudates from Fundus Images Using 3σ Control Limits," *International Journal of Computer Technology and Applications (IJCTA)*, 2014.

Conference Papers

1. **P. N. Patil, J. Usha, A. Dharani**, "Automated Dengue Recognition and Analysis through Image Processing and Machine Learning," *2024 International Conference on Integrated Circuits and Communication*, 2024.
2. **A. Dharani, P. N. Patil, C. Chakravorty**, "Augmented Reality-Based Visualization and Education for Biogas Plant Adoption in Rural Communities," *2023 4th IEEE Global Conference for Advancement in Technology (GCAT)*, 2023.
3. **A. K. B., P. N. Patil**, "Tracking methods in augmented reality—explore the usage of marker-based tracking," *Proceedings of the 2nd International Conference on IoT, Social, Mobile, Analytics and Cloud (I-SMAC)*, 2020.
4. **P. Patil, S. Sheelavant**, "Detection and classification of microaneurysms and haemorrhages from fundus images for efficient grading of diabetic retinopathy," *2018 International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques (ICEECOT)*, 2018.
5. **G. G. Rajput, S. B. Ummature, P. N. Patil**, "Text-Line Extraction from Handwritten Document Images Using Histogram and Connected Component Analysis," *International Journal of Computer Applications (0975–8887), National Conference on Recent Trends in Computer Science and*

Information Technology, 2015.

6. **G. G. Rajput, P. N. Patil**, "Detection and classification of exudates using k-means clustering in color retinal images," *2014 Fifth International Conference on Signal and Image Processing*, 2014.
7. **G. G. Rajput, P. N. Patil, R. Chavan**, "Automatic detection of microaneurysms from fundus images using morphological operations," *Proceedings of International Conference on VLSI, Communication, Advanced Devices, Signals & Systems*, 2013.
8. **G. G. Rajput, P. N. Patil, R. Chavan**, "Automatic detection of hard and soft exudates from fundus images using morphological operations," *2nd National Conference on Innovative Paradigms in Engineering and Technology*, 2013.

Books/Book Chapters

1. PN Patil, C. Saravanan, A. Dharani, "Innovations of Metaverse Technology in Healthcare: A Study on Melanoma Skin Cancer," *Future Innovations in the Convergence of AI and Internet of Things*, 2025.

Patents **[Filed / Published / Granted]**

1. Copyright: FISH BASED ANALYSIS OF MMP 1 IN ORAL CARCINOMA: A DIGITAL APPROACH, Authors: Dr Madhura Murittige Gopalakrishna, Dr Vijayalakshmi S Kotrashetti, Dr.Preethi N Patil, Rakshith R, Ranjith Kumar J, Dr Kishore Bhat & Dr. Manohar S.Kugaji

R & Grants & Consultancy Projects

Ongoing & Completed Research Projects

- **Extended Reality Center for Education and Research** – Funding Agency: VGST, Karnataka, Duration: [2023-2025], Role:Co-PI.
- **Awareness Creation and Detection of Vector Borne Disease -Dengue for Public Health (22-HAC-128)**- Funding Agency: IEEE HAC, Duration: [May 2022- Nov 2022], Role:Co-PI.

Ongoing & Completed Consultancy Projects

- **AR based Biogas Plant Development** – Funding Agency: Greeneria Renewable Technologies, Duration: [Dec 2022-feb 2023], Role: Co-PI

Professional Memberships

- IEEE
- ISTE

Awards & Recognitions

- **Smt. Basamma S. Sirwar Gold Medal**, Gulbarga University, 2008
- **Sri. Homi Irani Gold Medal**, Gulbarga University, 2008
- **Prof. B. Siddappa Felicitation Committee Gold Medal**, Gulbarga University, 2008
- **Sri. Kodangal Sharanabasappa Master Memorial Gold Medal**, Gulbarga University, 2008
- **Sri. Shankarlal Lahoti Gold Medal**, Gulbarga University, 2008
- **Best Article**, Uagine Chennai – Asia's Largest Tech Summit, 2023
- **DST Inspire Fellowship (National)**, Awarded for Ph.D. by DST, 2012
- **1st Rank, PG Degree (MCA)**, Gulbarga University, 2008
- **4th Rank, UG Degree**, Gulbarga University, 2005

Student Supervision

- **Ph.D. Candidates:** 03
- **MCA. Students:** 130

Professional Roles

- **Committee Member:** International Conference on Computational Systems and Information Technology for Sustainable Solutions

Teaching

Core Courses: **II semester MCA**

- MCA22TB Analysis and Design of Algorithms

Advanced/Lab Courses:

- Cloud computing Lab and modern Application Development Lab

Professional Roles

Responsibilities

- **Academic:** Placement Coordinator
- **Administrative:**

External Connect

Projects

Number of UG Projects Guided	Number of PG Projects Guided	No. of Doctorate Students	
NA	72	Completed	In Progress
		00	03

Publications

National Journals	National Conferences	International Journals	International Conferences	Book Chapters Published	Patent Granted
NA	03	06	05	NA	NA