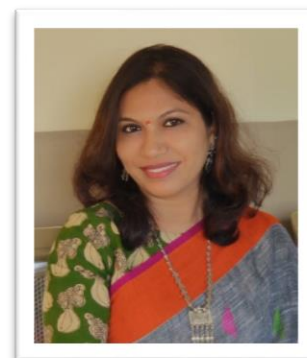


Hemalata Mote



Profile Summary:

An enthusiastic and results-driven academician with significant experience in teaching, research, and academic coordination. Possesses in-depth knowledge in Digital Design, Microcontrollers, and Embedded systems, Artificial Intelligence, Computer Networks and Image Processing and Pattern Recognition, with a passion for nurturing student potential and contributing to institutional excellence. Skilled in curriculum planning, student mentoring, and organizing academic initiatives. Known for creating dynamic and interactive learning environments using innovative teaching practices. Dedicated to continuous improvement through research engagement and active participation in faculty development programs.

Designation: Assistant Professor

IDs

- GoogleScholarLink: https://scholar.google.com/citations?hl=en&user=MLOFmQ0AAAAJ&view_op=list_works&sortby=pubdate
- LinkedInURL: <https://www.linkedin.com/in/hemalata-mote-71477728a/?originalSubdomain=in>
- VIDWAN ID: <https://vidwan.inflibnet.ac.in/profile/457285>
- Orcid ID: 0000-0002-0714-3683

Educational Details:

Sr. No.	Degree	Board / Institution / University	Year
1	Ph.D.	Sardar Patel Institute Of Technology, Mumbai/ Mumbai University	Pursuing
2	M.E. (Electronics)	Fr. Conceicao Rodrigues College of Engineering, Bandra/ Mumbai University	2011
3	B.E. (Electronics)	K.B.P. College of Engineering, Satara/ Shivaji University	2004
4	H.S.C.	Yashwantrao Chavan Institute of Science, Satara/ Kolhapur Board	2000
5	S.S.C.	New English School, Satara/ Kolhapur Board	1998

Date of Joining DBIT: 6 February 2023

Area of Specialization: Image Processing, AI/ML/ DL, Embedded Systems

Teaching Experience in DBIT: 2 years, 2 months

Sr. No.	Position Held	Dates (From-To)
1	Assistant Professor	6/02/2023 till date

Total Teaching Experience: 20 years

Sr. No.	Institution	Dates (From-To)	Designation
1	Don Bosco Institute OF technology, Kurla(W), Mumbai	6 th Feb 2023 till date	Assistant Professor
2	K. C. College of Engineering & Management Studies & Research, Thane , Mumbai	September 2022 -4 th Feb 2023	Assistant Professor
3	Atharva College Of Engineering, Malad, Mumbai	Jan 2020- August 2022	Assistant Professor
4	L&T Institute Of Technology, Powai, Mumbai	Dec 2004- Nov 2019	Lecturer (Sr. Scale)

Peer Reviewed Journal Papers:

- 1) Mote, H., Kulkarni, S. Biometric face phylogeny tree reconstruction using optimal texture extraction model. SIViP 19, 337 (2025). <https://doi.org/10.1007/s11760-025-03926-x>
- 2) Hemalata Mote. (2024). Near-Duplicate Image Analysis: Comprehensive Approaches to Image Phylogeny Tree Construction and Forensic Applications. International Journal of Intelligent Systems and Applications in Engineering, 12(4), 1717–1727. Retrieved from <https://www.ijisae.org/index.php/IJISAE/article/view/6471>
- 3) Presented paper titled: “Parameter Estimation for Creating Near Duplicate Dataset” presented at “The International Conference on Intelligent Solutions for Emergency Support and Disaster Management,” jointly Organized by CoE in Emergency Response Support System (ERSS)/ National Institute of Technology, Tiruchirappalli and Centre for Development of Advanced Computing (CDAC), Trivandrum. Publication in SCIE and Scopus-indexed journals. Jan 9-11, 2023.
- 4) Pawar, N., Prajapati, V., Mote, H., Patil, J., Shetty, P., & Telecommuncation, T. (2022). 3M Secure Transportation System.URL:<https://www.irjet.net/archives/V9/i4/IRJET-V9I4289.pdf>
- 5) Maroo, Yash, Sairaj Marshetty, Aditi More, Pawan Gond, and Hemalata Mote. "A Review on Tourist Analyzer", Volume: 09 Issue: 01," International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056, Jan 2022, p-ISSN: 2395-0072, URL: <https://www.irjet.net/archives/V9/i1/IRJET-V9I1264.pdf>
- 6) Maroo, Yash, Sairaj Marshetty, Aditi More, Pawan Gond, and Hemalata Mote. “Tourist Analyzer”, Volume: 09 Issue: 04," International Research Journal of Engineering and

Technology (IRJET) e-ISSN: 2395-0056, Apr 2022, p-ISSN: 2395-0072,

URL: <https://www.irjet.net/archives/V9/i4/IRJET-V9I4164.pdf>

- 7) Vaibhav Shah, Nikhil Sharma, Prince Solanki, Prof. Hemalata Mote, "Deaf and Dumb Gesture Recognition System", Volume 10, Issue IV, International Journal for Research in Applied Science and Engineering Technology (IJRASET) Page No:1030-1034, ISSN:2321-9653. URL: <https://www.ijraset.com/best-journal/deaf-and-dumb-gesture-recognition-system>
- 8) Gulam Gaus Khan, Karan Sanap, Nitesh Pathak, Vikrant Patankar, Prof. Hemalata Mote, "False Currency Detection using Image Processing", Volume 9, Issue IV, International Journal for Research in Applied Science and Engineering Technology (IJRASET) Page No:906-909, ISSN:2321-9653, URL: <https://www.ijraset.com/files/serve.php?FID=34357>

Peer Reviewed Conference Papers:

- 1) Paper titled "Enhancing Image Phylogeny Tree (IPT) Reconstruction through Local Editing Operation (LEO) Considerations" is accepted for the presentation at the International Conference on Artificial Intelligence and Machine Learning scheduled on May 12 - 14, 2025 in Copenhagen, Denmark.
- 2) Presented a paper titled "Face Detection Performance Improvement via Slicing Aided Hyper Inference" at 1st Global Conference on Cognitive Computing and Communication Technology (GC4T-25) being organized by Dr.D.Y Patil School of Science & Technology, DR. D. Y. PATIL VIDYAPEETH, Pune on 4th & 5th April 2025.
- 3) Presented a paper titled "AI Driven Rat Detection for Warehouse" at 7th IEEE International Conference on "Emerging Smart Computing & Informatics (ESCI-2025)" on 5th-7th March 2025 jointly organized by AISSMS IOIT, IEEE Pune section and IEEE Signal Processing Society.
- 4) N. Ambre, R. Pitale, P. Rao, H. Mote and S. Chavan, "A-eye: Attendance monitoring using face detection and recognition from CCTV footage," 2024 4th International Conference on Emerging Smart Technologies and Applications (eSmarTA), Sana'a, Yemen, 2024, pp. 1-6, doi:10.1109/eSmarTA62850.2024.10638970.
URL: <https://ieeexplore.ieee.org/document/10638970>
- 5) Shingate, H.M., Unnikrishnan, S., Rao, S. (2011). IEC 61850: Goose Messaging Implementation for MPR. In: Unnikrishnan, S., Surve, S., Bhoir, D. (eds) Advances in Computing, Communication and Control. ICAC3 2011. Communications in Computer and Information Science, vol 125. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-18440-6_27

STTPs/FDPs/Workshops Organized:

2024-25:

- Organized an industry expert session on “Embedded Systems: An Industry Perspective” for the Second Year, Semester IV Electronics & Telecommunication Engineering students on Monday, 17 March 2025. The session was conducted by Mr. Quentin Desouza Technical Director, Qdnet Technologies Pvt. Ltd. Andheri East Mumbai.
- Organized a Hands on Demonstration on “Machine Learning Model Development for Medical Images” in the field of Image processing on Thursday, 13 March 2025 for the students of third year, semester VI of Electronics & Telecommunication Engineering branch. The Session was conducted by Mr. Pramod Kachare, Assistant Professor, Ramrao Adik Institute of Technology, Nerul, Navi Mumbai.

2023-24

- Organized an interactive session on " Machine Learning and Model Evaluation" in the Image processing domain on Monday, April 01, 2024 in our Institute for the Third year Electronics & Telecommunication Engineering students. Dr. Satishkumar L. Varma, Professor and Head of the Dept (Information Technology) Pillai College of Engineering was the resource person.

2022-23

- Organized an expert session on “Industry Insights: Project To Product” with our third-year students of T.E., Semester III of Electronics and telecommunication Engineering Department on Wednesday, 1 March, 2023 in our institute. The session was conducted by Mr. Ravi Hedau Vice President- Design & Development, Eclipse Prism Medical Devices Pvt. Ltd. Navi Mumbai,
- Organized an expertise on “IP Network Performance & Testing” with our third-year students of T.E., Semester VI of Electronics and Telecommunication Engineering Department conducted on Thursday, 23 March 2023 in our institute. The session was conducted by Mr. Kartik Parikh, CEO, Fastech Telecommunications, Andheri East, Mumbai.
- Organized an expert lecture on the topic “Role of Digital Systems & PLDs using Xilinx” was organised on 4th October 2023 under the subject Digital /system design conducted by Principal Dr. Sudhakar Mande.

STTPs/FDPs/Workshops Attended:

2024-25:

- Attended one week Online ATAL Faculty Development Program on "Deep Learning & Its Applications" scheduled from 16th December 2024 to 21st December 2024.
- Attended one week online workshop on "Emerging Significance of Artificial Intelligence in Biomedical, Industry 5.0, Cyber Security & Data Forensics" held between 26th to 31st

August, 2024, organised by VPM's Maharshi Parshuram College of Engineering, Velneshwar in association with Indian Society for Technical Education, New Delhi.

2022-23

- Attended one week National level FDP on Python Programming and its Applications from 8th to 12th May 2023 organized by Bharatratna Indira Gandhi College of Engineering, Solapur.
- Attended a webinar on "Think, Check & Submit" on 9th March 2023 organized by the Association of Indian Universities in collaboration with The International Association of Scientific, Technical and Medical Publishers (STM).
- Attended one week National FDP on "Augmented & Virtual Reality" in association with IEEE Computer Society, Pune from 20th to 24th February 2023 organised by Dept. of Information Technology, Vishwakarma Institute of Information Technology, Kondhawa, Pune.

2021-22

- Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on: "An Insight into Biometrics for Digital Forensics" from 20/09/2021 to 24/09/2021 JSS Science and Technology University.
- Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on: Industry Oriented FDP on Artificial Intelligence" from 23/08/2021 to 27/08/2021 at MSME-Technology Development Centre (PPDC), Meerut.
- Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on: "Augmented Reality (AR)/ Virtual Reality (VR)" from 30/11/2020 to 04/12/2020 at Indian Institute of Technology Patna.

Participation in SWAYAM MOOCs/NPTEL/Certification Courses Attended:

2024-25:

- Currently undergoing an NPTEL AICTE approved FDP on Data Analytics with Python a 12 week course.

2020-21

- The National Programme on Technology Enhanced Learning (NPTEL) MOOC on
 - 1) Deep learning from Jan 2021-April 2021.
 - 2) Machine Learning from Sept 2020-Dec 2020
 - 3) Innovative Design Thinking from Aug 2019-Sept 2019.

2020-21

- Successfully completed The National Programme on Technology Enhanced Learning (NPTEL) MOOC on Innovative Design Thinking from Aug 2019-Sept 2019.

Trainings Undergone in Industry/ Joint Research Publications:

2024-25:

- 1) Presented a paper titled “AI Driven Rat Detection for Warehouse” at 7th IEEE International Conference on “Emerging Smart Computing & Informatics (ESCI-2025)” on 5th-7th March 2025 jointly organized by AISSMS IOIT, IEEE Pune section and IEEE Signal Processing Society with Bharat Godam Solutions LLP, Ahmedabad, Gujrat, India.

Patents Granted:

- Published a patent Titled “ Machine Learning And Artificial Intelligence Techniques For intrusion Detection in Network Security” Publication date: 23/6/2023

Achievements/Awards/Recognitions:

- Best paper award at for the paper titled “Face Detection Performance Improvement via Slicing Aided Hyper Inference” presented at 1st Global Conference on Cognitive Computing and Communication Technology (GC4T-25) being organized by Dr.D.Y Patil School of Science & Technology, DR. D. Y. PATIL VIDYAPEETH, Pune on 4th & 5th April 2025.
- Successfully guided two industry projects for final year students A.y. 2023-24. For these projects students have received continuous guidance and support from Mr. Ravi Headau Vice President – EPMD, Pvt. Ltd. Rabale, Navi Mumbai.

Outcome: Industry-sponsored challenges and Industry problem statement provided experiential learning opportunities for students. Developed professional attitude among students.

1) Multi object Detection and Analysis with Different Sensors- For this project received appreciation from external examiner Dr. Vyawahare sir. He further asked us to extend this idea and proceed for patent filing.

2) Real Time ICU patient Monitoring & Visualization of critical Parameter of Patient Health for Hospital Physicians.

- Third project with group members Nimesh Ambre (BE), Raveena Pitale (BE) and Prajeet Rao (BE) participated and presented project titled “Face Recognition for Class Attendance System” in 18th Aavishkar - Inter Collegiate /Institute/ Department Research Convention (Zonal Round) organised by the University of Mumbai at Vivekanand Education Society's Institute of Technology, Mumbai on 15 December 2023.
- Also this project titled “Face Recognition for Class Attendance System” were one of the top 9 selected teams of a total of 27 teams for the preliminary round held on 18 February 2024 of YESIST'12 2024, organised by IEEE and IEEE AESS Student branch chapter of Sardar Patel Institute of Technology, Mumbai.

Institute Development/Department Responsibilities Handled:

2024-25:

1) Class Teacher since June 2024 till date.

- Electing Class Representatives
- Coordinating Parents teacher meeting
- Updating parents about Institute activities, examinations, results
- Counselling students
- Preparing defaulter list

2) Mentoring Incharge-

- Department level coordinator since June 2024 till date
- Compilation of last five years mentoring data as per NAAC requirements.
- Assigning mentors to SE students
- Collecting mentoring reports after end of semester.
- Also counselling the students who needs support.
- Mentoring success story shared with NAAC team, which was appreciated by the team.

3) IA Coordinator- EXTC department Internal Assessment 1& 2 (IA) coordinator since Even sem 2024. Which includes:

- Scheduling: Develop and manage the exam timetable, ensuring it aligns with the academic calendar and accommodates all students and courses.
- Resource Allocation: Arrange for the necessary resources, including exam venues, invigilators, and materials such as question papers, answer sheets, and other supplies.
- Communication: Inform students, faculty, and staff about exam schedules, procedures, and any updates or changes.
- Result analysis: Compilation of all semesters, subjectwise results.
- Sharing Department IA data with Exam cell.

4) EXTC Department Exam Coordinator- EXTC department Exam coordinator since Even sem 2024. Which includes:

- Coordination with exam cell for EXTC university OR/PR exam
- Preparing Result Analysis
- Collecting data from department faculties as per exam cells requirement.
- Communicating exam cell notices with EXTC students group.
- Preparing PR/OR exam schedules.

5) EXTC lab1 Incharge-

Preparing budget
Procurement of instruments
Maintain laboratory records

6) NIRF EXTC coordinator-

- Providing EXTC department data since December 2023 as per required format of NIRF to the institute level incharges.

2023-24

1) NAAC-Criteria 3- Department coordinator

- Department level coordinator – Five years data collection and formatting and files were maintained as per NAAC requirement.
- For AQAR and SAAR submission.
- Also after query compilation of data.

2) EXTC Admission 2024 coordinator-

- Preparation of Publicity materials and publicity on social media You tube channel of Alumni, Parents Testimonials, Flyer, Distinguished Alumni posters etc.
- Guided and convinced to get admission in EXTC department to the various enquires received.

3) AAC Coordinator-

- The Academic Advisory Council meeting was successfully coordinated and organized on 09 September 2023.

4) EXTC InnoQuest 2023 Coordinator-for Sem III

- Successfully coordinated InnoQuest-2023: A Mini Project competition for semester III students, which was held on 3 Nov 2023.
- InnoQuest-2023 served as a platform for the students to showcase their work fostering open ended discussions.
- It also inspired the first year students to explore problem solving and application of the concepts they are currently learning.
- A total 18 projects of SE were exhibited during Inno Quest 2023.

Contact Details:

- Email ID: hemalata@dbit.in