

Curriculum Vitae

Dr. Priti Mangesh Bharambe

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Career Objective

To encourage creativity and critical thinking to improve student performance and encourage lifelong learning.

Academic Qualifications

- Ph.D. in Computer Science
Thesis Title: 'Distributed System Optimization for Machine Learning using Data Parallelism'
- Master of Computer Applications (MCA), North Maharashtra University, Jalgaon (2006) — Higher Second Class
- Bachelor of Science (B.Sc.) in Computer Science, North Maharashtra University, Jalgaon (2003) — First Class
- Higher Secondary Certificate (H.S.C.) in Science, State Board (2000) — First Class
- Secondary School Certificate (S.S.C.), State Board (1997) — First Class

Professional Experience

- Baburaoji Gholap College, Pune
Lecturer, Dept. of Computer Applications
June 2007 – November 2021
- MIT Arts, Commerce & Science College, Alandi (D), Pune
Assistant Professor, Dept. of Computer Applications
December 2, 2021 – Present

Total Teaching Experience: 18 years

Research Projects and Collaborations in Waste Management

- **UBI Funded Project**
Project Title: Smart Waste Management and Recycling Solutions Using IoT-Based Technology for Rural Villages

Role: Principal Investigator | **Duration:** 6 months | **Technologies Used:** IoT
Description:

Led a rural-focused project to implement IoT-based waste monitoring systems for real-time bin tracking, optimized collection routes, and conversion of organic waste into compost/bioenergy. Conducted community training in **Charholi Kh., Maharashtra**, promoting waste segregation and sustainability. Oversaw end-to-end project execution, including technical deployment and community outreach.

Patents

- Title: 'Deep learning based approach to analyse the listening comprehension problems by students and strategies used by intermediate learners of EFL.'
Application No: 202241059056A
Publication Date: 28/10/2022
- Title: Published the Indian Utility Patented "System and Method for Synchronous Multi-Modal Evaluation with a Real-Time Data Fusion Engine in a Specialized Digital Assessment Apparatus, Application No. 202621002598 "

International and National Participation (Paper Presentation)

- Sustainable optimization of data processing waste in distributed systems: Addressing energy consumption and electronic waste in data-intensive application paper publish in AIP Scopus index conference Proceedings
- Temporal Pattern Matching in Student Performance Data to Predict Graduation Rates and Program Success: A Deep Learning Approach for Program Recommendation Published in the UGC CARE-listed Journal – The Indian Journal of Technical Education, ISSN: 0971-3034; scheduled for publication in April 2025.
- ICECA 2023: An In-Depth Analysis of Electric Vehicle Charging Station Based on LSTM and SVM Hybrid Model (Published on IEEE Xplore).
- Presented a research paper at the 14th International Conference on Sustainable Waste Management – Circular Economy & IPLA Global Forum 2024 (ISWMAW 2024), with the abstract published in the official conference proceedings.
- Published a research paper titled "A Comprehensive Review of Machine Learning-Based Recommendation Systems for Students in Education" in the **Scopus-indexed Journal of Technology**.
- Published a research paper titled "Ethical Artificial Intelligence, Blockchain Transparency and Immersive Digital Technologies for Sustainable Business and Economic Transformation " published in the web of Science general TELEMATIQUE ISSN:1856-4194.
- Paper listed on SSRN's Top Downloads: 'SUSTAINABLE OPTIMIZATION OF DATA PROCESSING WASTE IN DISTRIBUTED SYSTEMS'.

- Chapter titled “AI in Managing Chronic Diseases: AI in Managing Chronic Diseases” has been published in the IGI Global scientific book “Revolutionizing Medicine With Autonomous Robotics.”
- Presented paper titled “A Robust & Reproducible Multimodal Framework for Classroom Activity Recognition” at the 3rd International Conference on Recent Advances in Artificial Intelligence, Computer Vision & Smart Systems.

Accepted Publications and Conference Presentations

- Sustainable Optimization of Data Processing Waste in Distributed Systems: Addressing Energy Consumption and Electronic Waste in Data-Intensive Applications Accepted for publication in AIP Conference Proceedings.
Presented at the International Conference on Sustainable Computing & Intelligent Systems (ICSCIS-2025), held on 21–22 March 2025.
- Resource-Aware Optimization for Distributed Storage Systems in Mobile Computing Accepted and presented at the IEEE 1st Global Conference on Cognitive Computing and Communication Technology (GC4T-2025), Scopus-indexed, 2025.
- Dr. Priti Bharambe book chapter titled “**Optimization Algorithms and Data Frameworks for Sustainable Systems**” has been successfully accepted for publication in the book “**Adaptive Intelligent System for a Sustainable Planet**”, to be published by **Wiley iSTE**, London, United Kingdom (UK).

Reviewer Activities

- Reviewed papers for the **IEEE SCOPES-2024 Conference** on Signal Processing, Communication, Power, and Embedded Systems.
- Reviewed Papers for the **ANTIC 2024 Project on EquinOCS**, organized by **Banaras Hindu University**, Varanasi, India.
- Reviewed Papers for the **ANTIC 2025 Project on EquinOCS**, organized by **Banaras Hindu University**, Varanasi, India.
- Reviewed a book chapter for **IGI Global Scientific Publishing** titled "Machine Learning-Based Prediction of Chronic Diseases Using Convolutional Neural Network and K-Nearest Neighbors Algorithms: Enhancing Disease Diagnosis through Automated Feature Extraction and Classification."
- Reviewed a book chapter for **IGI Global Scientific Publishing** titled “A Comparative Study of Machine Learning Algorithms for Embryo Selection in In Vitro Fertilization”

- Reviewer at UG & PG Programme (March 2020 - Present) for study materials for distance education and LMS development.
- Reviewer in IEEE PuneCon 2025 hosted by **Savitribai Phule Pune University**
- Reviewer for the **Advanced Network Technologies and Intelligent Computing (ANTIC) 2025** International conference.
- Reviewer in the conference "International Symposium on Data-AI Harmonies for Society (Resonance2026)
- Dr. Priti Mangesh Bharambe work as a reviewer in RAAMC-2026 conference, a Special Issue is being organized in Boletim da Sociedade Paranaense de Matemática (BSPM).

Peer-Reviewed Publications

- **AI-powered Financial Algorithm: Revolutionizing the Wealth Management**
SSRN (Social Science Research Network), 2025
DOI: 10.2139/ssrn.5179669
- **Artificial Intelligence in Financial Services: Fraud Detection, Risk Management and Algorithmic Trading**
International Journal of Progressive Research in Engineering Management and Science (IJPREMS), 2025, pp. 2205–2210
- **A Comprehensive Analysis of Emerging Cyber Threats and Mitigation Strategies in the Digital Era**
International Journal of Scientific Research & Engineering Trends, 2025
ISSN: 2395-566X
- **Precision Agriculture: AI-Driven Methods for Crop Management**
International Journal of Progressive Research in Engineering Management and Science (IJPREMS), 2025, pp. 1756–1759
- **Open-Source AI Algorithms: A Qualitative Study on Transparency, Bias Mitigation, and Ethical Accountability**
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT), 2025
- **AI in Supply Chain Management & Logistics: Enhancing Efficiency, Automation, and Decision-Making in Modern Enterprises**
International Journal of Progressive Research in Engineering Management and Science (IJPREMS), 2025, pp. 1091–1094
- **The Role of AI in Revolutionizing Healthcare: A Comprehensive Study**
International Journal of Progressive Research in Engineering Management and Science (IJPREMS), 2025
- **Security of Data in Cloud Computing**

International Journal of Advanced Research in Science, Communication and Technology, 2025
ISSN: 2581-9429

- **Artificial Intelligence in Healthcare: Innovations in Early Disease Detection, Diagnostic Tools, and Personalized Treatment Plans**
Artificial Intelligence in Healthcare, 2025 ISSN: 2581-9429
- **Digital Twins in Smart Manufacturing: Adoption, Challenges, and Future Prospects**
International Journal of Innovative Science and Research Technology, 2025
ISSN: 2456-2165
- **Enhancing Collaborative Intelligence: Synergistic Approaches for Distributed Machine Learning and AI Collaboration in Heterogeneous Environments**
International Journal for Multidisciplinary Research (IJFMR), Vol. 6, Issue 1, Jan–Feb 2024
Publication Date: February 29, 2024
- **Distributed Systems – A Brief Review of Interaction Model**
Renewable Research Journal Presented at International Conference on Foundations and Application of Computer Science & Engineering (CSE 2022)
- **Special Focus: Emerging Technologies for Education and Training Using Machine Learning**
Renewable Research Journal Presented at Online International Conference on Digital Innovation and Its Impact on Human Rights
Organizer: Institute of Law

Invited Talks and Academic Engagements

- Invited as a **Resource Person** for Ph.D. Coursework on **August 17, 2024**, to deliver a session on “AI in Academic Research & Teaching” for Ph.D. students of **Savitribai Phule Pune University (SPPU)**.
- Expert for Intercollegiate Project Completion at Baburaoji Gholpa College (06 Feb 2025).
- Expert in Google Development Club Hackathon at MIT ACSC College.

Curriculum and Syllabus Structuring Contributions (SPPU and Institutional Level)
Redesigned the BBA (CA) and BCA syllabus in alignment with the **National Education Policy (NEP) 2020** guidelines at **MIT Arts, Commerce and Science College**, for the academic year **2023–2024**.

SPPU Curriculum Restructuring (Savitribai Phule Pune University)

- **FYBSc (Computer Science)** – Redesigned syllabus for **Database Management Systems (DBMS)** and **Relational DBMS**, **January 2024**.
- **SYBSc (Computer Science)** – Contributed to syllabus structuring for the subject **Computer Networks**, academic year **2023–2024**.
- **SYBCA** – Structured the syllabus for **C++ Programming**, academic year **2023–2024**.
- **MSc (Computer Science) Semester I** – Formulated the syllabus for **Principles of Programming Languages**, academic year **2023–2024**.
- **MSc (Computer Science) Semester II** – Structured syllabi for:
 - **Database Technology**
 - **Deep Learning** (Academic Year: 2023–2024)

Books Authored and Academic Contributions

- **Distributed Computing Techniques: Handling Big Data Challenges**
ISBN: 978-93-5619-925-5 | Published: April 2022
- **Theoretical Computer Science**
Parijat Publication | ISBN: 978-93-90769-37-7 | Academic Year: 2021–2022
- **Compiler Construction**
Parijat Publication | Academic Year: 2021–2022
- **Advanced 'C' Programming**
Parijat Publication
- **Computer Networks**
Spectrum Publication
- **E-Books Published by Wizcraft Publication:**
 - Machine Learning Algorithms
 - Mathematics for Machine Learning
 - Operating System
 - Data Science
 - Discrete Mathematics
 - Data structure
 - C Programming
 - CPP
 - DBMS,RDBMS

Content Writing and Editorial Roles

Content Writer, Wizcraft Publication

Responsible for developing e-book content, academic chapters, and curriculum-aligned resources in computer science

Tenure: 2020 – Present

Examination and Assessment Responsibilities

- Appointed as **Chairman** for the subject Data Structure at **Savitribai Phule Pune University (SPPU)** for **four consecutive academic years**.
- Served as **Paper Setter** and **Board Member** for various undergraduate and postgraduate courses under SPPU, including:
 - Operating System

- Object-Oriented Programming
 - Relational Database Management Systems (RDBMS)
- Worked as **Paper Setter**, **Paper Checker**, and **Moderator** for affiliated colleges under SPPU, including:
 - **MIT Arts, Commerce & Science College, Alandi, Pune**
 - **Raisoni College**
 - **Indira College**
- Served as **Moderator** for **Raisoni College**, ensuring academic integrity and quality in examination papers.
- Functioned as a **Theory Examiner** and **Practical Examiner** for various university-level examinations, handling responsibilities related to evaluation, invigilation, and academic assessment.
- Worked as a **Senior Supervisor** during university examinations, overseeing smooth conduct of assessments, examiner coordination, and examination protocol compliance.

Student Mentorship & Project Guidance

- Guided SYBCA students in the project “IoT-Enabled Smart Traffic Management and Energy Harvesting for Sustainable Urban Development”, leading to a Winner’s Trophy at the inter-college level. Also served as compère for “Spark the Idea”, promoting innovation in Data Science, AI, and Cloud Computing, while enhancing students’ critical thinking and presentation skills.
- Guided FYBCA and SYBCA students for the Avishkar Competition; FYBCA team secured First Rank at college level.

Teaching Expertise

Operating System (OS), Relational Database Management System (RDBMS), Database Management System (DBMS), C Programming, C++ Programming, Java Programming, Computer Networking, Data Structures (DS), Advanced DBMS (ADBMS), JQuery, Web Technologies.

Academic Committees and Coordinating Roles

Diagnostic Test Committee, Remedial Coaching Committee, Staff Development Committee, Student Welfare Committee, BCUD Committee, Examination Committee, Cultural Committee, Placement Coordinator, Spoken Tutorial Committee (Coordinator), I-CASH Committee, Head of Criteria I (NAAC), Member of Criteria VII (NAAC), Time Table Coordinator, IQAC Committee, Pre-Skilet Coordinator

Seminars, Workshops, FDPs, and Special Sessions Attended/Conducted

1. **Faculty Induction Programme (FIP) – 24 Days**
Malaviya Mission Teacher Training Centre (MMTTC),

Coimbatore Institute of Technology (CIT), Coimbatore

Duration: 24 Days

2. **AI in Research**

International Conference on Innovations in Computing, Automation, Engineering and Applied Sciences

Registration No.: 45665.

3. **Effective Research Paper Writing on Teaching–Learning Practices**

MIT Academy of Engineering, Pune (Organized by Center for Excellence in Learning and Teaching – CELT)

17–18 July 2025

4. **One-Week Faculty Development Programme on Sustainable Development Goals**

Vishwakarma Institute of Technology (VIT), Pune

01–06 December 2025

5. **Converging Technologies: 6G, AI, and Quantum Computing for Smart Innovation**

ATAL Academy FDP, SF's Sandip Institute of Technology and Research Centre

08–13 December 2025

6. **Cloud Computing**

ExcelR Edtech Pvt. Ltd.

14–18 August 2025

7. **India's Global Development in the Digital Age: Ensuring Security in Cyber-Physical Systems for a Resilient Future**

ATAL Academy FDP, Lokmanya Tilak College of Engineering

24–29 November 2025

8. **The Evolving World of AI: Modern Trends and Diverse Implementations**

ATAL Academy FDP, Rajamahendri Institute of Engineering and Technology (Under Malaviya Mission Teacher Training Centre, Coimbatore Institute of Technology – CIT)

15–20 December 2025

9. **Strategies for Effective Teaching, Learning, and Assessment**

Workshop by IQAC & FDP Committee, MIT Arts, Commerce & Science College (MIT ACSC), Pune

24–25 June 2024

10. **Five-Day FDP on “Implementation of Outcome-Based Education (OBE) in Higher Education Institutions”**

IQAC & FDP Committee, MIT ACSC, Pune

11–15 June 2024

11. **FDP on Writing Research Proposals and Availing Research Grants**

12 March 2024

12. **Orientation Session on Impact Lecture and Mentor–Mentee Scheme Implementation**

Institution's Innovation Council (IIC)

23 February 2024

13. **Expert Lecture on NEP-2020 Implementation**
D.Y. Patil College
27 November 2023
14. **Innovation Ambassador Training (Advanced Course)**
18 September 2023
15. **State-Level Symposium on Indian Knowledge System (IKS)**
26 August 2023
16. **Innovation Ambassador Training (Foundation Course)**
26–30 August 2023
17. **Five-Day Online International FDP on Data Analytics using Power BI
ExcelR**
20–24 March 2023
18. **International Conference on Emerging Technologies (ICET-23)**
06–07 February 2023
19. **Conducted Online Placement Session on Full Stack Development for UG &
PG Students**
11 January 2023
20. **Innovation Ambassador (IA) Training Program**
Ministry of Education's Innovation Cell & AICTE (IIC)
2023
21. **FDP on Interpersonal Skills**
MIT ACSC, Pune
07 May 2022
22. **Webinar on NEP-2020: Quality Assessment and Ranking**
D.Y. Patil College
11 May 2022
23. **Chairman & Paper Setter – SYBBA (CA), Sem IV, Data Structures**
Savitribai Phule Pune University (SPPU)
13 May 2022
24. **ISTE-Approved STTP on “Machine Learning and Artificial Intelligence”**
Shri Bhagubhai Mafatlal Polytechnic
21–25 March 2022
25. **AICTE-ISTE Refresher Programme on “5G Technology”**
Guru Nanak Institute of Technology, Nagpur
21–26 February 2022
26. **National Intellectual Property Awareness Programme**
21 February 2022
27. **FDP on Data Analysis using Python**
AICTE Training and Learning (ATAL), New Delhi
27–31 December 2021
28. **National-Level FDP on Excellence in Higher Education: NEP Perspective**
Bharatiya Vidya Bhavan's Sardar Patel College
18–22 December 2021
29. **Five-Day FDP on Design and Analysis of Algorithms**
St. Joseph's Institute of Technology, Chennai
13–17 December 2021

30. **Capacity Building Programme for TYBBA (CA)**
D.Y. Patil College
25–27 October 2021
31. **FDP on Implementation of BBA (CA) Semester IV Syllabus & Slip Discussion**
D.Y. Patil College
25–30 January 2021
32. **Webinar on Recent Trends in Computer Science Research**
AGDBMM, Jalgaon (NMU Sponsored)
02–03 June 2020
33. **Basics of Research Methodology – Online Workshop**
Jagannath University (JJTU)
11–18 May 2020
34. **Research Methodology – Online Workshop**
JJTU
01–08 May 2020
35. **Workshop on Formation of Research Title and Hypothesis**
JJTU
21–26 April 2020
36. **Empowering Teachers for Online Teaching and Learning**
B.G. College
37. **Advanced Moodle Training Programme**
B.G. College
38. **Fifteen-Day Teacher Development Programme on DBMS**
Indian Institute of Technology (IIT), Mumbai
15–30 May 2013
39. **Twenty-Hour FDP on C and C++ Programming**
Quick Heal Foundation
15–16 June 2017
40. **Career Planning Workshop**
JetKing
19 August 2017
41. **Career Development in Digital Technology**
Board of College and University Development (BCUD), SPPU
22–23 December 2017
42. **Start-Ups and New Venture Management: Opportunities and Challenges**
Sinhgad Institute of Business
05–06 October 2017
43. **Interpersonal Skills and Personality Development Seminar**
Rajarshi Shahu College of Engineering
11 January 2018
44. **New BCA / MCA / M.Com Syllabus Discussion**
Indira College
28 January 2012

45. **NET / SET Examination Orientation Workshop**
Nowrosjee Wadia College
01–16 November 2011
46. **Seminar on Biometric-Based Identification Systems**
B.G. College
07–09 February 2011
47. **TYBCA & MCA (Commerce) Syllabus Discussion and Slip Preparation**
D.Y. Patil College
13 September 2009
48. **Discussion on New BCA Syllabus and Practical Implementation**
Indira College
16 January 2009
49. **Two-Day Workshop on Data Science**
Annasaheb Magar College
50. **Five-Day FDP on Machine Learning**
Savitribai Phule Pune University (SPPU)
51. **Five-Day National-Level Virtual FDP on R Programming**
IMS Noida in collaboration with IIT Bombay (Spoken Tutorial)
52. **Six-Day FDP on BBA Syllabus Implementation**
53. **Online FDP on Learning, Pedagogy, and Case Methodology**

I declare that information furnished here is true to the best of my knowledge

Date: 11/02/2026

Place: Pune

Dr. Priti Mangesh Bharambe