PRASHANT KUMAR NAG

Curriculum Vitæ

I am an early-career researcher specializing in artificial intelligence, deep learning, and affective computing, with a focus on emotion detection, cognitive appraisal, and explainable AI. My work explores how AI models interpret human emotions in text and how transparent analytical methods can improve understanding, reliability, and human-centered applications. I am committed to developing rigorous, reproducible, and interpretable AI techniques while contributing to research, teaching, and collaborative academic growth.

RESEARCH INTERESTS

Core
Affective Computing
Computational emotion modeling, appraisal-based emotion reasoning, and human–AI affective interaction

Core
Text-based Emotion Recognition
Sentence-, span-, and context-level models for emotion and emotion-cause detection

Methods
Explainable AI for NLP
Attention-based interpretability, attribution techniques, and rule-based cognitive explanations for deep NLP models

EDUCATION

Jul. 2019
|
Thesis Submitted: 06/11/2025
Doctor of Philosophy (Ph.D.) in Computer Applications
Maulana Azad National Institute of Technology, Bhopal 📍 M.P. India

Thesis: *Design of Efficient Artificial Intelligent Deep Learning Models for Human Emotion Detection*
Specialization: *Artificial Intelligence, Deep Learning, Natural Language Processing and Affective Computing*
Supervisor: Dr. Amit Bhagat
Co-supervisor: Dr. R. Vishnu Priya

Jul. 2012
|
Jul. 2015
Master of Computer Applications (MCA)
National Institute of Technology, Tiruchirappalli 📍 T. N. India

Thesis: *QR Code–Based Automated Attendance System for Classrooms*

Jul. 2008
|
Aug. 2011
Bachelor of Computer Applications (BCA)
Devi Ahilya Vishwavidyalaya, Indore 📍 M.P. India

TEACHING EXPERIENCE (3+ years)

Dec. 2025
|
Present
Assistant Professor – Computer Applications
Galgotias College of Engineering & Technology, Greater Noida 📍 U.P. India

CONTACT INFO

👤 Assistant Professor

🏛 Galgotias College of Engineering & Technology (GCET)

📍 Greater Noida, U.P. India

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EhaIZtAAAAAJ&hl

Scopus 57408214000

HPE-9262-2023

▶ ResearchInfuser

TECHNICAL SKILLS

Advanced: R (Quarto, Rmarkdown, etc.), Zotero, Python, WSL2/ Linux Workflow, DVC, Markdown, MS Office and Git
Intermediate: Inkscape, Gimp, LibreOffice, PBS and bash/shell
Basic: C/C++ and JavaScript

LANGUAGES

English: Professional Working Proficiency
Hindi: Native

Last updated on 2025-12-24.

Aug. 2016 | Apr. 2019

Faculty – Computer Science
Institute for Excellence in Higher Education, Bhopal 📍 M.P. India

*Undergraduate Computer Science teaching across multiple academic sessions, delivering lectures, supervised practicals, conducting evaluations, and mentoring students. Completed a total of **1,948** lectures between **2016 and 2019** as part of continuous teaching engagement.*
Courses taught: *Introduction to Programming, Linux Programming, Computer Networks*

Apr. 2016 | Jun. 2016

Computer Faculty – Computer Applications
Unique Girls College Parasia, Chhindwara 📍 M.P. India

Undergraduate teaching in Computer Applications, including practical supervision, evaluations, and student academic support.
Courses taught: *Introduction to Programming, Computer Fundamentals, Internet and Web Design*

Nov. 2015 | Apr. 2016

Assistant Professor – Computer Science
Sony College of Mgmt. and Technology, Chhindwara 📍 M.P. India

Undergraduate and postgraduate teaching in Computer Science; responsible for lectures, practical sessions, assessments, and examination duties.
Courses taught: *Introduction to Programming, Data Structures, Linux Programming*

📖 PUBLICATIONS

Publication Summary
9 as first/corresponding or co-first authors, 1 as co-author

📄 JOURNAL ARTICLES

Apr. 2025

Expanding AI's Role in Healthcare Applications: A Systematic Review of Emotional and Cognitive Analysis Techniques
Prashant Kumar Nag, Amit Bhagat, R. Vishnu Priya
IEEE Access

SCIE · **Q1** · IF **3.6** (JCR 2023)
📖 Read

Nov. 2024

Yolov5-Based Attention Mechanism for Gesture Recognition in Complex Environment
Deepak Kumar Khare, Amit Bhagat, R. Vishnu Priya, Prashant Kumar Nag, Sunil Malviya
International Journal of Advanced Computer Science & Applications

Scopus · **Q3** · IF **0.9** (2024)
📖 Read

Sep. 2023

Text-Based Emotion Recognition Using Contextual Phrase Embedding Model
Vishnu Priya R., Prashant Kumar Nag
Multimed Tools Appl

SCIE · **Q2** · IF **3.0** (JCR 2023)
📖 Read

👥 CONFERENCE PAPERS

In Press

Leveraging Text Data in Healthcare: A Systematic Review of AI-Driven Emotional Analysis and Patient-Centric Innovations
Prashant Kumar Nag, Amit Bhagat, R Vishnu Priya, Sunil Malviya, Sanjay Mishra
International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) (Conference Presentation)

AIP Conference Proceedings

Dec. 2023 — Emotional Intelligence Through Artificial Intelligence: NLP and Deep Learning in the Analysis of Healthcare Texts
IEEE Xplore
Prashant Kumar Nag, Amit Bhagat, R. Vishnu Priya, Deepak Kumar Khare
2023 International Conference on Artificial Intelligence for Innovations in Healthcare Industries (ICAIIHI) (Conference Presentation)

Jun. 2021 — Contextual BI-Directional Attention Flow With Embeddings From Language Models: A Generative Approach to Emotion Detection
ACM
Prashant Kumar Nag, Vishnu Priya R

AIR '21: Proceedings of the 2021 5th International Conference on Advances in Robotics (Conference Presentation)

📤 PREPRINTS

Jul. 2024 — Advancing Patient Care through Text Data: A Systematic Review of AI, Emotional Analysis, and Patient-Centric Applications in Healthcare
TechRxiv
Prashant Kumar Nag, Amit Bhagat, R Vishnu Priya

Mar. 2024 — Emotional Intelligence Through Artificial Intelligence : NLP and Deep Learning in the Analysis of Healthcare Texts
arXiv
Prashant Kumar Nag

Dec. 2024 — A Systematic Review of AI, Emotional Analysis, and Patient-Centric Applications in Healthcare
TechRxiv
Prashant Kumar Nag, Amit Bhagat, R Vishnu Priya

📄 OTHER PUBLICATIONS

Mar. 2018 — Impact of Digitization on Indian Economy
IEHE Bhopal
Prashant Kumar Nag
2nd National Conference on "Digital Economy: Impact and Challenges" (Conference Presentation)

🏆 AWARDS & ACHIEVEMENTS

Jun. 2020 — National Fellowship for Scheduled Caste Students (2020-21)
National Testing Agency   📍 India
National Fellowship

Awarded by the Ministry of Social Justice and Empowerment, Government of India.

Jun. 2019 — Entrance Examination for Full-Time Ph.D. (with Institute TA)
Maulana Azad National Institute of Technology   📍 Bhopal, M.P.
Entrance / Competitive Examination

Qualified the MANIT Ph.D. Entrance Test (2019) and was selected for the Full-Time Ph.D. programme with Institute Teaching Assistantship (TA).

National Eligibility Test for Assistant Professor
National Testing Agency / University Grants Commission
Eligibility Examination (UGC–NET)

Qualified for Assistant Professor

| Jun. 2020 (53.33%) | Dec. 2019 (46.67%) | Jun. 2019 (50.00%) |
| Dec. 2015 (53.71%) |

MCA Entrance Examinations
Cleared National Level MCA Entrance Exams
Entrance / Competitive Examinations

| IIT JAM (2011) | JNU MCA (2011) | NIMCET (2011, 2012) |
| BIT MCA (2011): AIR 17 | KIITEE MCA (2011): Rank 15 (SC) |

🧑‍🏫 EXPERT LECTURES DELIVERED

Oct. 2023

Question Bank Development Workshop
Department of Physics & Electronics, IEHE 📍 Bhopal, M.P.

Delivered session

Topic: *Workshop on Question Bank Development and Outcome-Based Assessment Design*

Feb. 2022

National Workshop on Scilab
Institute for Excellence in Higher Education (IEHE) 📍 Bhopal, M.P.

National Workshop

Topic: *Computation Through Scilab & Solving differential Equations*

Nov. 2019

AICTE Training and Learning (ATAL) Academy FDP
Dept. of Mathematics, Bioinformatics and Computer Applications
📍 Bhopal, M.P.

National FDP

Topic: *Introduction to Virtual Reality: Concepts, Applications, and Future Trends*

Sep. 2019

AICTE Training and Learning (ATAL) Academy FDP
Dept. of Mathematics, Bioinformatics and Computer Applications
📍 Bhopal, M.P.

National FDP

Topic: *Fundamentals of Naive Bayes Classification and Its Applications in Machine Learning*

Aug. 2018

Certificate Course in Cryptography (CCC)
Institute for Excellence in Higher Education (IEHE) 📍 Bhopal, M.P.

Topic: *Foundation Course on Cryptography: Principles, Algorithms, and Applications*

Feb. 2018

Basic Computer Training
RCVP Noronha Academy 📍 Bhopal, M.P.

National Training

Topic: *Cloud Computing for Educators: Practical Use of Google Drive, Skype, and Cloud-Based Collaboration Tools*

Jan. 2018

NPTL Awareness Workshop and Online Learning
NPTL Local Chapter & ICT Cell, IEHE 📍 Bhopal, M.P.

National Workshop

Topic: *Hands-On Workshop on Configuring and Using Moodle for Online Teaching and Assessment*

👨‍💻 WORKSHOPS & SEMINARS

Sep. 2025

IEEE Authorship and Open Access Symposium
IEEE 📍 Online

International Symposium

Jul. 2022

Workshop on Artificial Intelligence and High-Performance Computing
NIT Mizoram & IIT Kharagpur 📍 Online

National Workshop

Mar. 2020

Six-Day Student Excellence and Learning Program (NPIU-SELP)
TEQIP-III at MANIT 📍 Bhopal, M.P.

National Workshop

Dec. 2019

AICTE Training and Learning (ATAL) Academy Five-Day Workshop
Dept. of Electronics and Communication Engineering, MANIT
📍 Online

National Workshop

Jan. 2018

NPTEL Awareness Workshop and Online Learning
NPTEL Local Chapter & ICT Cell, IEHE 📍 Bhopal, M.P.

National Workshop

Feb. 2017

National Seminar on Emerging Trends in CS and IT (ETCSIT)
Department of Computer Science, IEHE 📍 Bhopal, M.P.

National Seminar

👨‍🎓 PROFESSIONAL DEVELOPMENT

Nov. 2019 — **AICTE Training And Learning (ATAL) Academy FDP on "Augmented Reality (AR)/Virtual Reality (VR)"**
Deparatment of MBC, MANIT   📍 Bhopal M.P.   *National FDP*

Sep. 2019 — **AICTE Training And Learning (ATAL) Academy FDP on "Internet of Things (IoT)"**
Deparatment of MBC, MANIT   📍 Bhopal M.P.   *National FDP*

May. 2019 — **Faculty Induction Programme (FIP) under TLC Project**
NITTTR   📍 Bhopal M.P.   *National FDP*

Sep. 2016 — **Faculty Development Programme on Innovative Teaching Methodologies in the Present Context**
Department of Computer Science, IEHE   📍 Bhopal M.P.   *National FDP*

👥 SERVICE & LEADERSHIP

📑 REVIEWING & EDITORIAL WORK

2025 — **Students' Conference on Electrical, Electronics and Computer Sciences (SCEECS2025)**
MANIT Student Branch   *Meta Reviewer*

2024 — **1st International Conference on Artificial Intelligence for Innovations in Healthcare Industries (ICAIIHI)**
ICHISS2024 Technical Program Committee   *Reviewer*

2024 — **4th IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES 2024)**
IIIT Kottayam   *Reviewer*

2024 — **7th International Conference Recent Trends in Image Processing & Pattern Recognition (RTIP2R 2024)**
IIIT Bhopal   *Reviewer*

2024 — **Students' Conference on Electrical, Electronics and Computer Sciences (SCEECS2024)**
MANIT Student Branch   *Meta Reviewer*

👥 EVENT ORGANIZATION & LEADERSHIP

2024 — 2024 — **6th International Conference on communication and Intelligent Systems (ICCIS 2024)**
Soft Computing Research Society   📍 Bhopal, MP   *Session Coordinator*
Served as a Session Coordinator in the Technical Session: TS04 - Emerging Techniques

2017 — 2019 — **TechFest (Computer Forum) – Event Coordination**
Department of Computer Science, IEHE   📍 Bhopal, MP   *Coordinator*
Coordinated the departmental TechFest under the Computer Forum, assisting in event planning, session management, and publicity activities.

💻 ACADEMIC ICT CONTRIBUTIONS

2018 — **TechFest Promotional Teaser (IEHE)**
ICT Cell, IEHE   📍 Bhopal, MP   *Media Designer*
Created the first-ever promotional video for the departmental TechFest.

Moodle-Based Online Assignment Submission System

2017 | 2019

ICT Cell, IEHE   📍 Bhopal, MP

Configured Moodle's assignment and MCQ modules, prepared structured student data, and trained ICT staff and faculty. Adopted by the Departments of Chemistry, Mathematics, and Forensic Science for digital submissions and MCQ assessments.

Coordinator

Google Sites–Based Student Workflow System

2017 | 2019

ICT Cell, IEHE   📍 Bhopal, MP

Designed and implemented structured Google Sites workflows to digitize event registration, share schedules and instructions, and significantly reduce paper-based processes across student activities.

Coordinator

🧑‍🏫 ACADEMIC LEADERSHIP

Board of Studies – Computer Science

2017 | 2019

Department of Computer Science, IEHE   📍 Bhopal, MP

Contributed to curriculum review and syllabus restructuring, aligning course contents with emerging trends in computer science and industry requirements.

Member

⑂ OPEN SOURCE PROJECTS

MANIT Thesis Quarto Extension (manit-thesis)

2024

Developer & Maintainer

Quarto extension that applies MANIT-approved thesis formatting through a reusable template for fully reproducible dissertation authoring.

🐙 GitHub

MANIT Presentation Template (manit-presentation)

2024

Developer & Maintainer

Quarto presentation theme (reveal.js/beamer) aligned with MANIT branding, designed for research talks, conference presentations, and academic seminars with automated slide structuring, code highlighting, and reusable layouts.

🐙 GitHub

MANIT Pre-Thesis Template (manit-pre-thesis)

2024

Developer & Maintainer

Quarto document template for MANIT PhD Pre-Thesis / Synopsis reports with standardized academic sections and automated formatting.

🐙 GitHub

📇 REFERENCES

Dr. Amit Bhagat

Associate Professor, Department of Mathematics, Bioinformatics and Computer Applications

Maulana Azad National Institute of Technology, Bhopal

📍 M.P. India

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Dr. R. Vishnu Priya

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National Institute of Technology, Tiruchirappalli

📍 T.N. India

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    vishnupriya@nitt.edu
📞 +91 9486072557