

# DR. M. MALATHI

## ASSISTANT PROFESSOR | DEPARTMENT OF COMPUTER SCIENCE

NGM College, Pollachi | Email: [malathi.mca09@gmail.com](mailto:malathi.mca09@gmail.com) / Mobile: 9965661106

### PROFESSIONAL PROFILE

Experienced Computer Science faculty member with expertise in teaching, research, student mentoring, academic coordination, professional development, and institutional activities. Key research domains include Data Mining, Opinion Mining, Machine Learning, Artificial Intelligence, IoT, Cybersecurity, and VANETs.

### EDUCATIONAL QUALIFICATIONS

| Qualification | Specialization                 | University / Institution                      | Year | Result           |
|---------------|--------------------------------|-----------------------------------------------|------|------------------|
| BCA           | Computer Application           | Bharathiar University – NGM College, Pollachi | 2007 | 75.81%           |
| MCA           | Computer Application           | Bharathiar University – NGM College, Pollachi | 2010 | 83.65%           |
| M.Phil.       | Computer Science               | Bharathiar University – NGM College, Pollachi | 2014 | Highly Commended |
| Ph.D.         | Computer Science – Data Mining | Bharathiar University – NGM College, Pollachi | 2022 | Highly Commended |

### PROFESSIONAL EXPERIENCE

#### Assistant Professor – Department of Computer Science

NGM College, Pollachi | June 2011 – Present

- Teaching undergraduate and laboratory courses; student mentoring and project guidance.
- Academic assessment, course material preparation, and curriculum-related activities.
- Coordination of IQAC, NIRF, R&D Cell, NGM Times, alumni, and Design Thinking Club activities.
- Active participation in college-level committees and administrative responsibilities.

### ACADEMIC & ADMINISTRATIVE RESPONSIBILITIES

- **NGM Times Coordinator:** Editor & Coordinator for the official institutional newsletter / publication.
- **Department R&D Cell Coordinator:** Departmental Coordinator for Research & Development Cell activities.
- **IQAC Responsibilities:** Criterion Manager & Department IQAC Coordinator.
- **IQAC FDP Committee:** Organizing Committee Member for 7-Day National FDP on Quality Assurance.
- **Departmental Coordination:** NIRF Coordinator, Alumni Coordinator, and Alumni Registration Committee Member.
- **Placement Coordinator:** Department Placement Coordinator for student career development and drives.
- **Value Added Course Coordinator:** Coordinator for courses on WordPress, Overview of AngularJS (MVC), HTML & CSS.
- **Club Leadership:** Design Thinking Club Coordinator.

## RESEARCH PROFILE SUMMARY

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- **Books Published:** 4 Authored Books (including IoT, Explainable AI, Cybersecurity, and VANET Safety).
- **11 Journal Publications:** Including Scopus (Impact Factor 5.25), WoS, UGC Group II, and UGC-CARE indexed journals.
- **10 Conference & Seminar Presentations:** Including IEEE Xplore, International Conferences, and International Seminars.
- **Online Certifications:** 7 Coursera Certifications in Web Development, Python, DBMS, Teaching, and Design.

## BOOK PUBLICATIONS

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- **Internet of Things** – ISBN: 978-93-6940-003-4, Bluepen International Publisher, 2025.
- **Explainable AI (XAI) and Model Interpretability** – ISBN: 978-93-5762-692-7, Alpha International Publication, 2025.
- **Zero-Day Secrets: Understanding and Preventing Cyber Threats** – ISBN: 978-93-7196-026-7, Alpha International Publication, 2026.
- **Drivers and Passenger Safety Using Cluster Based Routing in VANET** – Dr. R. Shiddharthy & Dr. R. Malathi, ISBN: 978-620-9-50357-3, Lambert Academic Publication, International, Feb 2026.

## JOURNAL PUBLICATIONS

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- **“Opinion Mining Using Cuckoo Search Algorithm for Customer Reviews”** – The International Journal of Analytical and Experimental Modal Analysis, 2018. UGC Group II.
- **“A New Approach for Naïve Bayes for Text Classification with Feature Extraction and POS Tagging”** – International Journal of Scientific & Technology Research, 2019. Scopus.
- **“Survey of Co-Extracting Opinion Targets and Opinion Words from Online Reviews Based”** – International Journal of Computer Science and Mobile Computing, 2019.
- **“A Hybrid Approach to Fabric Defects Detection System Using Image Processing Techniques”** – Compliance Engineering Journal, Vol. 10, Issue 11, November 2019. UGC-CARE Approved Group-A Journal.
- **“Improvement of Classification Accuracy for Streaming Data Using MTSE Algorithm”** – International Journal of Scientific & Technology Research, 2020. Scopus.
- **“M-CAT Feature Extraction and SVM Classification Based Opinion Mining”** – International Journal of Future Generation Communication and Networking, 2020. WoS.
- **“A Systematic Review on Opinion Mining and Sentiment Analysis”** – International Journal of Data Structures, 2021.
- **“M-Cuckoo and SVM Classification Algorithm Based Opinion Mining”** – Turkish Journal of Computer and Mathematics Education, 2021. Scopus. DOI: 10.17762/Turcomat.V12i4.456.
- **“Opinion Mining Using M-CAT and Naïve Bayes Classification Algorithm”** – Maharaja Sayajirao University of Baroda, 2021. UGC CARE Group I.
- **“Impact of Network Virtualization on Application Performance Metrics”** – Dr. M. Malathi, Dr. Rami Ryad Hossein, Dr. M. Durgarani, Sudharsana Vijayan, T. Sriaruna Kameshwaran, Dr. Priya Vij. Journal of Internet Services and Information Security (JISIS), Vol. 15, No. 3, August 2025, pp. 495–505. Scopus, Impact Factor: 5.25, ISSN: 2182-2077 / 2182-2069. DOI: 10.58346/JISIS.2025.I3.034.
- **“Digital Commerce Transformation through AI-Enabled Financial Intelligence in the Banking Sector”** – Dr. M. Malathi, Dr. M. SathanaPriya, Dr. Chithra. B, Dr. B. M. Rajesh, Dr. R. Naveenkumar. Advances in Consumer Research, Vol. 3, Issue 3, March 2026, pp. 61–72. Scopus, ISSN: 0098-9258.

## CONFERENCE & SEMINAR PRESENTATIONS

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- **“Application of Big Data in Various Fields”** – One Day National Conference on Green Computing, NGM College, 22 September 2017.

- **“An Enhanced Remote File Server Application Using Cluster Algorithm in Data Mining”** – NCERTCST ’19, 1 February 2019.
- **“Opinion Mining Techniques Comparison and Application”** – National Conference on Emerging Trends in Computer Science, 7 January 2020.
- **“Opinion Mining Techniques Using M-Cuckoo Techniques”** – NCERTCST ’20, 29 January 2020.
- **“New Opinion Mining Method Based on M-CUK Based Feature Extraction and NB Based Classification Algorithm”** – ICIRIST 2022, 10 May 2022.
- **“Streamlining Node Broadcast among Cluster Head Selection with Deep Learning-Based Specific Pattern (DLSP) in VANET”** – Dr. R. Shiddharthy & Dr. M. Malathi, International Conference on 'Recent Trends And Innovations In Multidisciplinary Research [RTIMR]', 2025. ISBN: 978-93-7013-154-5.
- **Oral Presentation** – International Conference on 'Recent Trends and Innovations in Multidisciplinary Research [RTIMR-2025]', Sacred Heart College (Autonomous), Tirupattur, 21 August 2025.
- **“Attention-Guided CNN for Accurate Skin Lesion Classification on Imbalanced Medical Datasets”** – Dr. M. Malathi, R. Ramyadevi, M. Bhuvaneswari, K. Gowthami, K. Lakshmi, Anju Pavithran. IEEE ICIMIA, 3–5 September 2025. ISBN: 979-8-3315-5387-6, DOI: 10.1109/ICIMIA67127.2025.11200557; IEEE Xplore, 20 October 2025.
- **Seminar Participation** – International Seminar on Next-Gen Technology Innovations & Applications (NGTIA-2025), 30 December 2025.
- **“An Adaptive Datamining Framework for High Dimensional Feature Selection Using Hybrid Learning”** – Dr. M. Malathi, International Conference on Recent Trends in Computer Science, Applications, Technology, Data Science and Mathematics (ICRTCSATDSM-2026), 27 February 2026. ISBN: 978-81-983678-2-2.

## COURSERA CERTIFICATIONS

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- **Introduction to CSS** – Coursera
- **Fundamentals of Database Management System** – Coursera
- **Python Scripting** – Coursera
- **Teaching Character and Creating Positive Classrooms** – Coursera
- **University Teaching** – Coursera
- **Create Charts and Dashboards Using Google Sheets** – Coursera
- **Textual Elements of Design: Fonts, Typography and Spacing** – Coursera

## FACULTY DEVELOPMENT & TRAINING PROGRAMMES (ANNEXURE 2E)

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- **Professional Development Programme on “Foundation of Teaching Learning”** – Conducted by NITTTR, Chennai (Ministry of Education, Govt. of India) at NGM College, Pollachi, 13–17 May 2025.
- **National IP Awareness Mission (NIPAM) Training Program** – Organized by Intellectual Property Office, Ministry of Commerce and Industry, Govt. of India, 30 April 2025.
- **One-Week National Level FDP on “Recent Advancement in AI & IoT - Industry Perspective”** – Organized by Periyar Maniammai Institute of Science & Technology.
- **One-Day FDP on “Mastering AI Tools for Research, Writing, and Publication”** – Organized by Dept. of Management Studies & Research, CIMAT with IEEE Bangalore Section & PencilBitz, 5 August 2026.
- **FDP on “Recent Trends in Higher Education in Science and Humanities to Rural Students”** – NGM College, Pollachi, 12–14 June 2019.

## PROGRAMMES, WORKSHOPS & EVENTS ORGANISED (ANNEXURE 2F)

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- **Organizing Committee Member:** 7-Day National FDP on “Quality Assurance and Frameworks in Higher Education”, IQAC, NGM College, Pollachi, 3–9 March 2026.
- **Exposure Visit Coordinator:** Exposure Visit to Incubation Units at Coimbatore Institute of Technology (CIT).
- **Event Coordinator:** Technical Fest – 'Infoglobbia'.
- **Organizing Secretary:** Seminar on 'Life Skill Enhancement', Dept. of Computer Science, NGM College, 16 October 2018.
- **Organizing Secretary:** One Day Seminar on 'Cyber Security Awareness' (Emerging Threats on Cyber Security – Digital Crime Awareness Program), Dept. of Computer Science, 8 January 2019.
- **Event Coordinator:** Seminar on 'Capacity Development and Skill Enhancement'.
- **Event Coordinator:** Workshop on 'Tools and Resources for Building Prototype (Digital and Physical)'.
- **Event Coordinator:** Session on 'Basics of Intellectual Property Rights and Its Importance for Innovators and Entrepreneurs'.
- **Event Coordinator:** Interactive Session: 'Q & A with Experts' (Inviting IP Attorneys and Professionals).
- **Organizing Secretary:** One Day Workshop on 'Dynamic Website Creation', Dept. of Computer Science, NGM College, 7 January 2019.

## EXTENSION ACTIVITIES & INVITED TALKS

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- **Resource Person / Guest Lecture:** Delivered a talk on “Setting Goals for Success: Creating Vision for Your Future”, Valparai Government Arts College.
- **Extension Activity Lead:** “STAY SMART, STAY SAFE IN DIGITAL WORLD”, Government High School, Ramanamudhalipudur, 21 January 2026.
- **Extension Activity Coordinator:** Swachh Bharat Programme – Coordinated and trained students at Government High School, D. Kalipalayam, 22 January 2020.
- **Resource Person:** In-Service Training Programme for Secondary Grade Science Teachers (Supported by TNSCST), Dept. of Physics, NGM College, 28 Aug – 1 Sep 2017.

## TECHNICAL SKILLS

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- **Programming Languages:** C, C++, Java, PHP, Python, JavaScript
- **Web & Databases:** HTML, CSS, WordPress, AngularJS (MVC), MySQL, RDBMS
- **Tools & Softwares:** AI Research Tools, Google Sheets (Charts & Dashboards), MS Office, Canva

## DECLARATION

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*I hereby declare that the information provided above is true and correct to the best of my knowledge and belief.*

Place: Pollachi

Signature: Dr. M. Malathi