

Dr. M. AMBIKA

Assistant professor,
Department of Computer Science and Engineering,
Indian Institute of Information Technology Tiruchirappalli,
Sethurappatti, Tiruchirappalli- 620012,
Tamil Nadu, India.
Email: ambikam@iiitt.ac.in, mani.ambika@gmail.com
Phone: +91 9894890900



EDUCATIONAL QUALIFICATION.....

- **Ph.D. (Faculty of Information & Communication Engineering),**
SSN College of Engineering, Anna University, Chennai, 2021.
- **M.E. (Computer Science and Engineering),**
Anna University Tiruchirappalli, 2009, with 82.92% (*First Class with Distinction*).
- **B.E. (Computer Science and Engineering),**
Saranathan College of Engineering, Bharathidasan University Tiruchirappalli, 2004 with 75.05% (*First Class with Distinction*)

TEACHING EXPERIENCE.....

- **Indian Institute of Information Technology Tiruchirappalli, Tiruchirappalli,**
Assistant Professor, February 2023 to Till Date.
- **SASTRA Deemed University, Thanjavur, Assistant Professor, August 2022 to February 2023.**
- **K. Ramakrishnan College of Engineering, Trichy, Assistant Professor, January 2020 to August 2022.**
- **P. R. Engineering College, Thanjavur, Assistant Professor / HOD, April 2010 to October 2012.**
- **P. R. Engineering College, Thanjavur, Assistant Professor, July 2009 to March 2010.**
- **P. R. Engineering College, Thanjavur, Lecturer, December 2004 to August 2007.**

RESEARCH EXPERIENCE.....

- **SSN College of Engineering, Chennai,**
SRF (under the scheme of Research Fellowship from UGC), April 2015 to March 2018.
- **Anna University (BIT Campus), Tiruchirappalli,**
JRF (under the scheme of Research Fellowship from UGC), April 2013 to March 2015.

Total Teaching and Research Experience: 15 Years 3 Months

RESEARCH DETAILS.....

Thesis Title : Intelligent Decision Support System to Predict and Prevent Hypertension Using Machine Learning Approaches.

Thrust Area Of Research:

- Data Mining
- Artificial Intelligence
- Machine Learning
- Deep Learning
- Recommendation System.

BOOK CHAPTERS

- S. Mala, **M. Ambika**, chapter titled "Face Recognition: Demystification of Multifarious Aspect in Evaluation Metrics" in the book title "Face Recognition - Semisupervised Classification, Subspace Projection and Evaluation Methods" in the year 2016. Publisher- InTechOpen, ISBN 978-953-51-2421-4. DOI: 10.5772/62825.
- **Ambika M**, Asifa Refasi A, Atchaya Devi S , Dhivya B, Leelarani KP, Raghuraman G, "Intelligent Framework for Number Plate Detection and Recognition in Toll Using Image Processing Techniques", Advances in Parallel Computing Technologies and Applications, Advances in Parallel Computing, Vol. 39 (2021),pp. 183 - 192. doi:10.3233/APC210139.
- **M. Ambika**, K. Latha, published the paper title "Intelligence Based Recommendation System for Healthcare: a Patient Centred Framework", on the book title "Advances in Innovative Engineering and Technologies" Canadian Arena of Applied Scientific Research Ltd., **Bangkok, Thailand**, 2015. DOI:10.18797/CAASR/ICIET/2015/11/27/19. ISBN No: 978-0-9948937-1-0.

TEXT BOOKS.....

- **M. Ambika**, S. Nithyanandam, K. Gayathri, has published a **textbook** of "System Software – Empower the Professionals", in the year 2014. Publisher - Dhanpat Rai & Co.(p). Ltd.
- **M. Ambika**, S. Nithyanandam, K. Gayathri, has published a **textbook** on "Mobile Computing", in the year 2012. Publisher - Dhanpat Rai & Co.(p). Ltd. ISBN No: 978-81-7700-051-1.

INTERNATIONAL JOURNAL PUBLICATION.....

- S. Mohana, C. Shyamala, E. Shapna Rani & **M. Ambika** "Preserving Sensitive Data With Deep Learning Assisted Sanitisation Process", Journal of Experimental & Theoretical Artificial Intelligence, 35:4, 589-616, 2023, DOI: 10.1080/0952813X.2022.2149861
- A.Syed Musthafa, **M. Ambika**, Abinaya KN, Dharshini M, Ishwarya M, Poovitha R, "Oryza Sativa Leaf Disease Detection using Transfer Learning," 2022 International Conference on Sustainable Computing and Data Communication Systems (ICSCDS), 2022, 1-7, doi: 10.1109/ICSCDS53736.2022.9760972. (IEEE)
- Kumar SK, Akeji AAR, Mithun T, **Ambika M**, Jabasheela L, " Stock Price Prediction Using Optimal Network Based Twitter Sentiment Analysis", Intelligent Automation & Soft Computing, 33(2), 2022,1217-1227, doi:10.32604/iasc.2022.024311

- **Ambika M**, Asifa Refasi A, Atchaya Devi S , Dhivya B, Leelarani KP, Raghuraman G, “Intelligent Framework for Number Plate Detection and Recognition in Toll Using Image Processing Techniques”, *Advances in Parallel Computing Technologies and Applications, Advances in Parallel Computing*, 39, 2021, 183 - 192. doi:10.3233/APC210139.
- **M. Ambika**, S. Sakthi Keerthana, M. Sarika, G. Swetha, M. Shifa Thasnim, “Smart Card Based Electronic Passport System Using RFID”, *Journal of Advanced Research in Dynamical & Control Systems*, 12(06), 2020. 685 – 691. doi:10.5373/JARDCS/V12I6/S20201081
- **M Ambika**, N Mangayarkarasi, Raghuraman Gopalsamy, L Sai Ramesh, Kamalanathan Selvakumar, “Secure and Dynamic Multi-Keyword Ranked Search”, *International Journal of Operations Research and Information Systems (IJORIS)*. 12(3), 2021, 1-10. doi: 10.4018/IJORIS.20210701.oa3.
- Murugan G, Sriram V.P, **Ambika M**, Priya V, “Implementation of New Secure File Transfer Protocol Using Triple-DES and MD5”, *International Journal of Advanced Science and Technology*, Vol. 29, No. 6, (2020), 4156- 4170.
- **M. Ambika**, G. Raghuraman, L. SaiRamesh, “Enhanced decision support system to predict and prevent hypertension using computational intelligence techniques”, *Soft Computing*, 24, 13293–13304, (2020), <https://doi.org/10.1007/s00500-020-04743-9>
- **Ambika. M**, Raghurama. G, SaiRamesh. L, Ayyasamy. A., “Intelligence – Based Decision Support System for Diagnosing the Incidence of Hypertensive Type”, *Journal of Intelligent & Fuzzy Systems*, 38(2), 1811-1825, 2020. DOI: 10.3233/JIFS-190143.
- **M. Ambika**, K. Latha, “Behaviour - Based Personalized Recommendation System to Insight the Perceptions on Non-Communicable Diseases” *International Journal of Advanced Engineering Technology*, VII(I/Jan.-March), 2016, pp: 942-945.
- **M. Ambika**, K. Latha, “Non-Communicable Diseases: an Approach for Prediction using Machine Learning Technique”, *International Journal of Applied Engineering Research*, 10 (55), 2015, 806 – 810.
- **M. Ambika**, K. Latha, “Intelligence Based User Profile Generation”, *Applied Mechanics and Materials Journal*, 573, (2014), pp: 618 - 623. DOI: 10.4028/www.scientific.net/AMM.573.618
- **M. Ambika**, K. Latha, “A Novel Approach for Web Intelligence”, *International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)*, 3(3), 2014, 1796- 1801.
- **M. Ambika**, K. Latha, “Web Mining: The Demystification of Multifarious Aspects”, *International Review on Computers and Software (I.RE.CO.S)*, 9(1), 2014, 135 – 141. DOI: <https://doi.org/10.15866/irecos.v9i1.1040>.
- **M. Ambika**, R. Rathika, “A Study on Web Ontologies – Based Reengineering Software for Cloud Computing Using Probabilistic Topic Models” *CiiT International Journal of Networking and Communication Engineering*, August 2011. DOI: NCE082011013.
- **M. Ambika**, Chinnayaian, “Reliability Assessment of Component Based Software Systems Using Software Component Roles” *CiiT International Journal of Software Engineering and Technology*, May 2011, DOI: SE052011007.

INTERNATIONAL CONFERENCES.....

- **Ambika M**, Freny jeffrin sweety N, Ishwarya R, Krithika M, Syed Musthafa.A, "Predicting The Risk Of Type 2 Diabetes In Patients With Cardiovascular Disease Using Supervised Learning Algorithm" (ICADSI 2022), Bannari Amman institute of Technology, Sathyamangalam, Erode, 2022.
- **Ambika M**, Aakash V, Arun vignesh B, Hariharan N, Hari prasath S, Syed Musthafa.A, "Web Based Intelligence System For Predicting The Plant Disease Using Data Science" *Virtual International*

Conference on Recent Advances in Electrical, Electronics, Computer and Communication Technologies, 2022, JP College of Engineering, Ayikudi, Tenkasi, 2022.

- A. S. Musthafa, **M. Ambika**, Abinaya KN, Dharshini . M, Ishwarya . M and Poovitha . R, "Oryza Sativa Leaf Disease Detection using Transfer Learning," 2022 International Conference on Sustainable Computing and Data Communication Systems (ICSCDS), 2022, 1-7, doi: 10.1109/ICSCDS53736.2022.9760972.
- **Ambika M**, Asifa Refasi A, Atchaya Devi S, Dhivya B, Leelarani KP, Raghuraman G, "Intelligent Framework for Number Plate Detection and Recognition in Toll Using Image Processing Techniques", International Conference on Advances in Parallel Computing Technologies and Applications (ICAPTA 2021), Justice Basheer Ahmed Sayeed College for Women in association with KAS, Chennai, 2021.
- **M. Ambika**, S. Sakthi Keerthana, M. Sarika, G. Swetha, M. Shifa Thasnim, "Smart Card Based Electronic Passport System", International Conference on Signal Processing and Communication Systems, Research and Development Cell, Department of ECE, M. Kumarasamy College of Engineering, 2020.
- **M. Ambika**, K. Latha, "Hybrid Model for Behaviour – Based Recommendation System: A Healthcare Perspective", Proceedings of International Conference on Emerging Trends in Engineering Research", (ICETER'16), International Association of Engineering & Technology for Skill Development, New Delhi, 2016.
- **M. Ambika**, K. Latha, "Intelligence Based Recommendation System for Healthcare: a Patient Centred Framework", Proceedings of International Conference on Advanced Theoretical Computer Applications, (ICATCA'15) on the book title "Advances in Innovative Engineering and Technologies" Canadian Arena of Applied Scientific Research Ltd., Bangkok, Thailand, held on 27th and 28th November 2015. DOI:10.18797/CAASR/ICIET/2015/11/27/19.
- **M. Ambika**, K. Latha, "Non-Communicable Diseases: an Approach for Prediction using Machine Learning Technique", Proceedings of International Conference on Advances in Applied Engineering & Technology, (ICAAET – 2015), Syed Ammal Engineering College, Ramanathapuram, Tamil Nadu, 2015.
- **M. Ambika**, K.Latha, "Healthcare System: A Review from the End-User Perspective", 3rd International Conference on Computer Engineering and Mathematical Sciences, (ICCEMS– 2014), at **Langkawi, Malaysia**, organized by Science and Knowledge Research Society, 2014
- **M. Ambika**, K.Latha, "Intelligence Based User Profile Generation", in International Conference on Advancements in Automation and Control (ICAAC – 2014), Syed Ammal Engineering College, Ramanathapuram, Tamil Nadu, 2014.
- **M. Ambika**, K.Latha, "A Novel Approach for Web Intelligence" 2014 IEEE International Conference on Innovations in Engineering and Technology (ICIET'14)", K.L.N. College of Engineering, Pottapalayam, Tamil Nadu, 2014, 657- 662.
- **M. Ambika**, R. Rathika, "Clinical Engineering and Risk Management of Healthcare Management in Tele Monitoring Heart Cycle." International Conference on Cloud Computing & Services 2011, Saveetha Engineering College, Chennai , (ICCCS2011) held during 14th to 16th December 2011.
- **M. Ambika**, R. Rathika, "A Study on Web Based Ontology – Reengineering Software for Cloud Computing using Probabilistic Topic Models." International Conference organized by E.G.S Pillay Engineering College, Nagapattinam, (ICAET'11), 2011.
- **M. Ambika**, C.Gomathi, "Rough Sets Based Knowledge Discovery for Health Care Management System" at the International Conference organized by Anna University Tiruchirappalli, Trichy (ICOREM - 09), 2009.
- **M. Ambika**, "Rough Sets Based Knowledge Discovery in Grid" at the International Conference organized by PRIST UNIVERSITY, Thanjavur (ICOPNAC-09), 2009.

NATIONAL CONFERENCES.....

- Presented a paper titled “Personalized Knowledge Discovery using Semantic and Ontological Model” at the National Conference organized by PRIST University, Thanjavur on 12th October 2012.
- Presented a paper titled “Automatic Construction of Terminological Ontologies Using Probabilistic Topic Models” in the National Conference organized by Anna University of Technology Madurai, (ETET’11) on 20th and 21st April 2011.
- Presented a paper titled “Reliability Assessment of Component Based Software Systems” at the National Conference organized by PSN College of Engineering & Technology, Tirunelveli (NCISE’11), held on 8th April 2011.
- Presented a paper titled “A Novel Mechanism for Authentication in Mobile Systems” at the National Conference organized by K.Ramakrishna College of Engineering, Trichy (NCIC’11) on 12th March 2011.
- Published a paper titled “Probabilistic Topic Models for Learning Terminological Ontologies” at the National Conference organized by K.Ramakrishna College of Engineering, Trichy (NCIC’11) on 12th March 2011.
- Published a paper titled “Peer to Peer in Wireless Mesh Networks” at the National Conference organized by K.Ramakrishna College of Engineering, Trichy (NCIC’11) on 12th March 2011.
- Published a paper titled “GRIDIS: Incentive Based Grid Scheduling” at the National Conference organized by Velalar College of Engineering and Technology, Erode (NCRTIT’10) on 27th March 2010.
- Published a paper titled “Optimization for Reliable Traffic Routing Based on Fuzzy Control Model” at the National Conference organized by Holy Cross College (Autonomous), Trichy (CWE’10) on 19th and 20th February 2010.
- Presented a paper titled “Rough Sets Based Knowledge Discovery with a Case Study” at the National Conference organized by KINGS College of Engineering, Pudukottai (NCEIT’09) on 21st March 2009.

PATENT DETAILS.....

- Published a Patent Name “CLOUD COMPUTING BASED E-LEARNING PLATFORM”, Register / Ref. No. : 202041055413 A (Cr. Earned: 8.00), Organization: THE PATENT OFFICE KOLKATA, 25/12/2020, Date: 2020-12-25, **Role: Inventor.**

MEMBERSHIP.....

- Life time member of The Indian Society for Technical Education (MISTE).
- Life time member of International Association for Engineers (MIAENG).
- Life time member of The Society of Digital Information and Wireless Communications (SDIWC).

CONFERENCES / SEMINARS / FDP / WORKSHOPS ORGANIZED

- Session chair – IEEE International Conference - ICEEICT 2022 (Feb 2022).
- Organized Intra College Virtual Coding Contest - KRCE (Sep. 2021)
- Coordinator of Tech Talk Presentation - KRCE (Jan 2020)
- Organized Orientation program for the new inducted faculty members (July 2012).
- Organized One day seminar on “Publication in Peer Reviewed Journals” (July 2012)
- Organized a one day seminar on “Library resources for Research” (June 2012)
- Organized one day seminar on “Technical Writing & Project work Documentation” (Feb 2012)
- Organized International Workshop on “The Art of Journal and Thesis Writing” (Jan 2012)

- Organized One day Seminar on “Research Culture” (Jan 2012)
- Convener for National level students Technical Symposium. (2010 - 2012)
- Co-coordinator for the AICTE Sponsored Staff Development Program on “Algorithms and Complexity Theory” held during from 31st May to 4th June 2011, Organized by P.R.Engineering College, Thanjavur. (June 2011)

AWARDS, PRIZES, HONOURS

- Got First class with Distinction in B.E. Degree examination.
- Got First class with Distinction in M.E. Degree examination.
- Awarded National Research Fellowship from UGC to pursue Ph.D. Degree for the tenure of 5 years (2013 to 2018).

OTHER ACTIVITIES

- FDP/ STTP/ Workshop Attended : 31
- Online Courses Completed : 4
- Seminar / Webinars Attended : 18
- Reviewer of the various International journals.
- Assigned as a Committee Member and In-charges for various academic level activities.
- Acted as Convener, Coordinator and Jury for the various club and other institution level activities.
- Guided many projects for PG and UG students.

LINKS

SCOPUS Profile Link : <https://www.scopus.com/authid/detail.uri?authorId=56112921700>

ORCID ID : <https://orcid.org/0000-0002-8748-1200>

Google Scholar Profile Link: <https://scholar.google.com/citations?pli=1&authuser=1&user=XXqSvp4AAAAJ>