Faculty Profile

Name **:** Dr. Vinothini A
Designation **:** Assistant Professor
Department **:** Computer Science and Engineering
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https://scholar.google.com/citations?user=t5p1YugAAAAJ&hl=en

Educational Qualification:

Degree	Specialization	University	Year of passing	Class
B.Tech	Information Technology	Anna University Chennai	2005	First-class with **Distinction**
M.Tech	Information Technology	Anna University Coimbatore	2011	First-class with **Distinction. University 3rd rank**
Ph.D	Information & Communication Engineering	Anna University Chennai	2022	-

Professional Experience

Total Experience: 12.6 Years

Name of the college	Designation	Department	From-To Date
Anna University Regional Campus-Tirunelveli	Assistant Professor	Computer Science & Engineering	05/12/2025 -till
Vellore Institute of Technology, Chennai	Assistant Professor Senior Grade I	School of Computer Science and Engineering	06/07/2022-04/12/2025
Rajalakshmi Engineering College	Assistant Professor (SS)	Computer Science & Engineering	27/05/2019-29/06/2022
Easwari Engineering College	Assistant Professor	Information Technology	15/06/2017-19/12/2018
Panimalar Engineering College	Assistant Professor	Information Technology	26/05/2014-15/05/2015
Sree Sastha Institute of Engineering and Technology	Assistant Professor	Information Technology	05/07/2012-25/04/2014
Hindustan University	Lecturer	Information Technology	19/06/2008-05/05/2009
Karpagam College of Engineering	Lecturer	Computer Science & Engineering	21/06/2005-05/06/2006

Domain of Interest

- ➢ Machine Learning
- ➢ Deep Learning
- ➢ Explainable Artificial Intelligence

Certification Courses Completed

- ➢ Oracle certified Java Foundations Associate
- ➢ IBM course on "Data Science Methodology"- Coursera
- ➢ IBM course on "Tools for Data Science"- Coursera
- ➢ IBM course on "Data Science"- Coursera
- ➢ Duke University course on "Developing Explainable AI (XAI)"
- ➢ NPTEL course on "Introduction to Machine Learning"
- ➢ NPTEL course on "Introduction to Research"
- ➢ NPTEL course on "Python for Data Science"
- ➢ TCSion course on "Introduction to Big Data"

Publications in Journals

1. R. P Priyadarshini and **A. Vinothini**, "Disease diagnosis in banana leaves: a review on AI powered techniques", PeerJ Comput. Sci. 11:e3310 DOI 10.7717/peerj-cs.3310 , 2025. Impact Factor: 2.4, [Q1] *(SCIE indexed)*

2. **Vinothini A** and Aswiga R V "Transfer learning based deep learning model for classifying tomato plant leaf diseases", Engineering Research Express, Vol:7, Issue: 2, DOI: 10.1088/2631-8695/add6f5. Impact Factor:1.5, [Q2] (SCIE indexed)

3. Prithi Samuel, Arumugham **Vinothini,** Jayashree Kanniappan, "POLSTM: Poplar optimization-based long short term memory model for resource allocation in cloud environment", Computer Communications, Vol.211, pp.11-23, 2023.Impact Factor: 4.5, [Q1] (SCIE indexed)

4. Arumugham **Vinothini**., Sankaralingam B.P., et al,"An explainable deep learning model for prediction of early-stage chronic kidney disease" Computational Intelligence, Wiley (2023), Impact Factor: 2.8,[Q3] (SCIE indexed)

5. Arumugham, **Vinothini**.; Ghanimi, H.M.A et al. "An Artificial-Intelligence-Based Renewable Energy Prediction Program for Demand-Side Management in Smart Grids", Sustainability 2023, 15, no.6:5453. Impact Factor: 3.3,[Q3] (SCIE indexed)

6. Subburaj, Brindha, Uma Maheswari Jayachandran, **Vinothini** Arumugham 2023. "A Self-Adaptive Trajectory Optimization Algorithm Using Fuzzy Logic for Mobile Edge Computing System Assisted by Unmanned Aerial Vehicle" Drones 7, no. 4: 266. Impact Factor: 4.4,[Q1] (SCIE indexed)

7. R. Reena Roy,Shanmugam L, A. **Vinothini**, Nirmala Venkatachalam, "Investigation of the Wear Behavior of AA6063/Zirconium Oxide Nanocomposites Using Hybrid Machine Learning Algorithms", Journal of Chemistry, vol. 2023, Article ID 7571588, 2023. Impact Factor: 2.8,[Q2](SCIE indexed)

8. **A.Vinothini**, S.BaghavathiPriya," Selecting Dominant Features for the Prediction of Early-Stage Chronic Kidney Disease", Intelligent Automation &Soft Computing, Vol. 31(2), pp. 947–959, September 2021. Impact Factor: 3.4 ,[Q3] (SCIE indexed)

9. **A. Vinothini**, S. BaghavathiPriya , "Design of chronic kidney disease prediction model on imbalanced data using machine learning techniques", Indian Journal of Computer Science and Engineering, Vol.11 (6), pp.708 - 718, December, 2020.(Scopus indexed)

10. **A Vinothini** , L. Kruthiga, U. Monisha, "Prediction of Flash Flood using Rainfall by MLP Classifier", International Journal of Recent Technology and Engineering (IJRTE), Vol.9(1), pp.425-429, May, 2020.

11. **A.Vinothini** ,S.Harinarayanan ,B.Gemila ,H.Y.Fahim, "An assessment model for file recovery in cloud computing using trust manager", International Journal of Scientific Research and Review. Volume 7, Issue 3, 2018. (UGC indexed)

12. K.Lalitha,K.Muthulakshmi,**A.Vinothini** , "Proficient acquaintance-based system for citrus leaf disease recognition and categorization", International Journal of Computer Science and Information Technologies, Vol. 6 (3), 2015.

13. Thanushka.M.V , Sangeetha.P , Suhasini. **Vinothini**, "Predicting relative risk for diabetes mellitus using association rule summarization techniques", International journal of advanced technology in Engineering and Science, Vol 3, Issue 01, March 2015.

14. **A.Vinothini**, K. MuthuLakshmi, K. Lalitha, "Fretfulness and Distinctiveness of Big Data: A Review", International Journal of Scientific & Engineering Research, Vol 5, Issue 11, November-2014.

Presentation and Publications in Conferences

1. Choudhary, P., **Vinothini, A**. (2025). Disease Detection in Tomato Plant Leaf Using Deep Learning Techniques. In: Pal, S.K., Thampi, S.M., Abraham, A. (eds) Intelligent Informatics. ISI 2023. Smart Innovation, Systems and Technologies, vol 389. Springer, Singapore. (Scopus Indexed)

2. J. Jiveesha and **A. Vinothini**, "Comparative Analysis of Various Deep Learning Techniques for Weed Detection in Corn Crops," *2024 8th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*, Coimbatore, India, 2024, pp. 812-819, doi: 10.1109/ICECA63461.2024.10801122.(Scopus Indexed)

3. **Vinothini, A**., Nandhini, L.K., Sreekrishna, M., Jaeyalakshmi, M., Suresh, A. (2023). Automated Perpetrator Identification by Face Recognition. In: Choudrie, J., Mahalle, P., Perumal, T., Joshi, A. (eds) ICT with Intelligent Applications. Smart Innovation, Systems and Technologies, vol 311. Springer, Singapore. (Scopus indexed)

4. Milind Vamsi M, Vinothini A, Sukanya A, "An Edge-AI Approach for Millet Crop Classification Using MobileViT and Efficient Mobile Deployment", IEEE 9th International Conference On Electronics, Communication And Aerospace Technology, November 2025.

5. **Vinothini A**, Prathiksha M, Padmashree J "A Review of Sign Language Classification Techniques",1st International Conference On IOT-AI &Ml in Information Technology, March 2022.

6. **A.Vinothini** , Rinold Raju, A. Sharon "CNN Based Alzheimer Detection and Management System", 3rd International Conference on Engineering Digital Green Era, April 2022.

7. **Vinothini A**, NanditaSajeev ,Paavai M V, "Predictive Analytics for flood forecasting using Logistic Regression", National Conference on Intelligent Techniques in Computing and Communications, May 2021.

8. SreeKrishna M, G.S.Gopika, Jaeyalakshmi M, Aksheya Suresh, **Vinothini A**, "Commutator Bus Transit Recommendation by Predicting Dynamic Bus Flow Occupancy Using Machine Learning", Fifth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC), IEEE ,pp. 538-541,2021. (Scopus indexed)

9. Syed Mohammad Mehdi, R. Srudev, **A. Vinothini**, "Automated Face Recognition by Image Processing Technique-A Review", International conference on engineering digital green era, Rajalakshmi Engineering College, Chennai, 12- 13 March 2020.
10. Kruthiga, U. Monisha, **A. Vinothini** , "A Survey of Machine Learning Methods for Prediction of Flood", International conference on engineering digital green era, March 2020.
11. **Vinothini**, S., Baghavathi Priya "Survey of machine learning methods for big data applications," IEEE Xplore Digital Library 2017 International Conference on Computational Intelligence in Data Science (ICCIDS), IEEE,2017, pp. 1-5. (Scopus indexed)
12. **Vinothini A**, Marikannu,"Diagnosing adverse drug reactions by highlighting n-UTAR from administrative health database" at a National Conference held at Velammal Engineering College, Chennai, 2011.

ResearchWork (Ph.D)

Title: "Design of Predictive Models for Identifying the Early-Stage Chronic Kidney Disease Using Machine Learning Techniques".
Supervisor: Dr.S. Baghavathi Priya, Professor, Rajalakshmi Engineering College
Duration: 2016-2021
This work focuses on the development of predictive and explainable models for the early detection of Chronic Kidney Disease (CKD), using Machine learning, Deep learning, and Explainable AI techniques.

Key Contributions:
• Mixed Data Feature Selection (MDFS)model
• SVM and DNN-based CKD prediction models
• MLP- SMOTE-based Comorbidity prediction model
• Explainable CKD model

Book Chapter
S., Baghavathi Priya, and **Vinothini A**rumugam. "Business Aspects, Models, and Opportunities of IoT." In *Edge Computing and Computational Intelligence Paradigms for the IoT.* IGI Global, 2019.(Chapter 6, pp. 31-47). https://doi.org/10.4018/978-1-5225-8555-8.ch006.

Professional Memberships

S No.	Professional Body	Membership No	From Date	To Date
1.	Computer Society of India-Member	7021250084	09-06-2025	08-06-2026
2.	IEEE-Member	99806116	01-01-2026	31-12-2026
3.	International Association of Engineers- Life Member	379735.	31-07-2024	
4.	Indian Society for Technical Education-Life Member	136821	16-03-2023	

Workshops / Faculty Development Programs Attended

S No.	Topic	Organizing Institution	From	To	Duration
1.	FDP on Foundation Skills for Employability	Naan Mudhalvan-Anna University Regional Campus, Tirunelveli	28.12.2025	04.01.2026	6 days
2.	FDP on Adaptive Curriculum for Excellence Training	Vellore Institute of Technology, Chennai	28.04.2025	30.04.2025	3 days
3.	FDP on Stimulating Faculty Towards Research Excellence	Vellore Institute of Technology, Chennai	07.06.2025	07.06.2025	3 days
4.	Workshop - Implementation of Outcome Based Education	Vellore Institute of Technology, Chennai	27.01.2025	27.01.2025	1 day
5.	Teaching Learning Process	Vellore Institute of Technology	26.08.2024	30.08.2024	5 days
6.	Oracle Java Certification	Vellore Institute of Technology	01.04.2024	06.04.2024	6 days
7.	Cloud Infrastructure (AWS)	Vellore Institute of Technology, Chennai/AICTE	21.08.2023	25.08.2023	5 days
8.	Standardization Process	Vellore Institute of Technology/BIS	28.09.2023	28.09.2023	1 day
9.	Design and Development of Artificial Intelligence (AI)-based Systems	Vellore Institute of Technology	13.7.2022	13.7.2022	I day
10	Language Proficiency for Professional Development	Vellore Institute of Technology	24.8.2022	28.8.2022	5 days
11	Efficient Discussions on Concepts in Data Structures and Algorithms	Vellore Institute of Technology	25.7.2022	29.7.2022	5 days
12	RPA Design & Development	Vellore Institute of Technology	14.7.2022	19.7.2022	5 days
13	Recent Trends in Artificial Neural Networks	J.K.K.Nataraja College of Arts & Science and ATAL	21.9.2021	25.9.2021	5 days
14	Artificial Intelligence using Python	Government Polytechnic and ATAL	15.11.2021	19.11.2021	5 days

15	Python Programming	Rajalakshmi Engineering College	8.12.2020	23.2.2021	3 months
16	Robotic Process Automation Tools and Techniques	Rajalakshmi Engineering College	8.2.2021	13.2.2021	1 week
17	Writing and publishing high impact research publication and scientific documents	Rajalakshmi Engineering College	21.9.2020	26.9.2020	1 week
18	Technologies for Societal Needs-Real time applications of AI, ML, and Research Initiatives	Karunya Institute of Technology and Sciences and IEEE	03.8.2020	07.8.2020	5 days
19	Learning Experience	Infosys	16.6.2020	29.6.2020	2 weeks
20	Machine learning with R	Prathyusha Engineering College,	10.9.2018	17.9.2018	1 week
21	Wireless Communication	Panimalar Institute of Technology	4.2.2015	11.2.2015	1 week
22	Cloud Computing	Panimalar Engineering College	7.10.2014	14.10.2014	1 week
23	Instructional Design and Delivery	Sree Sastha Institute of Engineering and Technology	6.8.2012	11.8.2012	1 week
24	Database Management Systems	Dhanalakshmi college of Engineering	13.12.13	27.12.13	2 weeks
25	Soft skills and class room dynamics	Hindustan Institute of Technology & Science	23.6.2008	4.7.2008	2 weeks
26	Data mining concepts and techniques	Kongu Engineering College	16.12.10	17.12.10	2 days

<u>Consultancy Project</u>

Project: Development of a Material Management System for Interior Design

Firm Name: Vinay Decors, India

Period: 01/04/2024-30/05/2024

Amount: Rs.30000

Seminars/Workshops / Faculty Development Programs /Thon Events Organized

S No.	Topic	Organizing Institution	From	To	Duration
1.	FDP on "AI in Data Analysis and Accounting"	Vellore Institute of Technology, Chennai	20.06.2025	24.06.2025	5 days
2.	Workshop on "Full-Stack Development"	Vellore Institute of Technology, Chennai	10.04.2025	10.04.2025	1 day
3.	Seminar on "Unlocking the Power of Python: Real-World Use Cases Across Diverse Domains"	Vellore Institute of Technology, Chennai	15.11.2024	15.11.2024	1 day
4.	Seminar on "Role of Programming in IT"	Vellore Institute of Technology, Chennai	25.04.2024	25.04.2024	1 day
5.	Seminar on "Tools and Techniques for IT Service Management"	Vellore Institute of Technology, Chennai	07.04.2023	07.04.2023	1 day
6.	Workshop on "Block Chain technology and its tools"	Vellore Institute of Technology, Chennai	16.05.2023	16.05.2023	1 day
7.	Seminar on "Exploring the potential Unleashed by the Adoption of 5G in India"	Vellore Institute of Technology, Chennai	07.06.2023	07.06.2023	1 day
8.	Thon Event CodeFusion-BCD23	Vellore Institute of Technology, Chennai	05.10.2023	05.10.2023	1 day
9.	Target 4.7 Education for Sustainable Development and Global Citizenship-	Vellore Institute of Technology, Chennai	27.10.2023	27.10.2023	1 day