

## **Faculty Profile**



**Dr. Anitha Julian, M.E., Ph.D**

Professor / CSE

Date of Joining: 08.07.2019

### **HIGHLIGHTS:**

- Number of Journal Publications : 62 in Scopus
- H-Index : 6
- Project Funding Received : TNSCST Minor Research Project Rs. 20,000
- Patents Published : 6

### **PROFESSIONAL LINKS:**

- Scopus ID : 57205204222
- Scopus Link :  
<https://www.scopus.com/authid/detail.uri?authorId=57205204222>
- Google Scholar ID : <https://scholar.google.com/citations?user=KoZ-9XUAAAAJ&hl=en>
- Anna University Faculty ID : 3111141
- AICTE Faculty ID : 1-7481003580
- LinkedIn : <https://www.linkedin.com/in/dr-anitha-julian-b8164432b/>

### **PROFESSIONAL BACKGROUND:**

- Teaching Experience till date : 22 years
- Industrial Experience : 4.2 years

## **INTERNATIONAL EXPOSURE:**

Collaboration with International Academic / Industry Experts through publication of research articles

- B. P. Nandini, P. S. Reddy, Gerardine Immaculate Mary, A. Julian, R. R. and M. Rele, "Smart Watch with Machine Learning Based Fall Detection System," *IEEE Region 10 Symposium (TENSYP)*, New Delhi, India, 2024, pp. 1-7. <https://doi.org/10.1109/TENSYP61132.2024.10752252>.
- Rele, Mayur., Julian, A., Patil, D., Sakthekannan, M.S., Krishnan, U. (2024). Machine Learning Methods for Predicting Traffic Congestion Forecasting. In: Simic, M., Bhateja, V., Murty, M.R., Panda, S.K. (eds) *Smart Computing Paradigms: Artificial Intelligence and Network Applications*. SCI 2024. Lecture Notes in Networks and Systems, vol 1147. Springer, Singapore. [https://doi.org/10.1007/978-981-97-7880-5\\_9](https://doi.org/10.1007/978-981-97-7880-5_9)
- Julian, A., Mary, Gerardine Immaculate., Selvi, S., Rele, Mayur., Vaithianathan, M., Blockchain based solutions for privacy-preserving authentication and authorization in networks, *Journal of Discrete Mathematical Sciences and Cryptography*, 2024, 27(2), pp. 797–808. <https://doi.org/10.47974/JDMSC-1965>

## **AREA OF SPECIALIZATION:**

- Artificial Intelligence
- Ad hoc Networks
- Game Theory

## **SPONSORED RESEARCH / FUNDING APPLIED / CONSULTANCY:**

- Proposal for conduct of AICTE Sponsored STTP on “Mentoring for Change” submitted to AICTE in December 2018.
- An Interactive System for the Visually Challenged, Rs. 20, 000 sanctioned by Computer Society of India, March 2010 – March 2011, Under Minor Research Project Scheme.

- Proposal titled Localized Livestock Habitat Monitoring was shortlisted for presentation in the DST Cluster of Projects Meeting on 'Instrumentation for Agriculture and Food Processing'. The meeting was held at Central Institute of Agricultural Engineering (CIAE), Bhopal during Feb. 16-17, 2012. Advised to take a real-time detailed survey on agriculture/ livestock applications and submit the proposal for the next IDP

#### **PATENTS PUBLISHED/GRANTED:**

- Dynamic Context-Aware AI System for Real-Time Adaptive Decision- Making Using Multimodal Data Streams, Application Number: 202441090731 A, Publication Date: 29/11/2024.
- Smart Mesh Network for Energy-Efficient IoT Device Communication with Predictive Maintenance Capabilities, Application Number: 202441090732 A, Publication Date: 29/11/2024.
- ANN Based Device For Reading Mood and Mind, Application Number: 202341002412 A, Publication Date: 17/02/2023
- A Machine Learning Model for predicting Air quality and Control the same, Application Number: 202341001671 A, Publication Date: 20/01/2023.
- Plantain Tree cultivation utilizes a deep Learning Model of Sequential Image Classifiers for Crop Disease Diagnosis, Application Number: 202241074035 A, Publication Date: 13/01/2023.
- A Blockchain-Based Artificial IoT Data Acquisition in Edge Computing Environment, Application Number: 202241042049, Publication Date: 29/07/2022.
- A System with Machine Learning to Diagnose Autism at an Earlier Stage, Application Number: 202241042291, Publication Date: 29/07/2022.
- Automated AI based Plant Disease Prediction and Curability Remedy suggested to Farmers, Application Number 202141016469, Publication Date: 23/04/2021.

### **COURSES CERTIFIED:**

- 30 hours online course on “Machine Learning for Data Science using Python” organised by Department of CSE, NIT Warangal in association with Center for Continuing Education during August 16th, 2022 to August 30th, 2022.
- **NPTEL Online Certifications**
  - Graph Theory
  - Innovation, Business Models and Entrepreneurship (FDP)
  - Emotional Intelligence (FDP)
  - MCDM Techniques using R (FDP)
  - NPTEL - Cognition, Transformation and Lives
  - NPTEL—Data Science for Engineers
- **Online Certifications**
  - Tata Steel E-Learning – Industry 4.0
  - Alison – REBT Science of Reprogramming Your Mind
  - PadhAI - Foundations of Data Science
  - PadhAI – Deep Learning
  - Coursera – Big data, Artificial Intelligence and Ethics.

### **ACHIEVEMENTS AND AWARDS:**

- DC Member for Ph.D. Scholar Reg.No. 24PHD0429 / Ms. Malini A at Vellore Institute of Technology, Vellore (November 2024 - till date).
- Expert Member for Ph.D. Scholar CS202D020 / Mr. Chiranjeevi K at MGR University (February 2021 – till date).
- External Member for Ph.D. Scholar 20603012/ Mr. P. Alwin Infant at Hindustan Institute of Technology and Science (Nov 2020 – till date).

### **SPECIAL SESSIONS DELIVERED:**

- Acted as Session Chair at the 12th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA-2024), organized by the AI and Data Science (AI & DS) Research Group, London Metropolitan University, London, United Kingdom on 6th & 7th June 2024.
- Acted as Technical Session Chair at the 6th International Conference on Smart Computing and Informatics (SCI-2024) held on 19th & 20th April 2024 organized by Department of CSE, IT, CSE (AI & ML, DS) Anil Neerukonda Institute of Technology & Sciences (A), Visakhapatnam, India in association with Springer.
- Acted as Special Session Chair at the 5th International Conference on Computing, Power, and Communication Technologies (IC2PCT) successfully held on February 9th & 10th, 2024 at Galgotias University, Greater Noida, India. This prestigious conference was organized with the financial and technical sponsorship of the IEEE Uttar Pradesh Section.
- Speaker Webinar on Artificial Intelligence in iRoBOT, 24th September 2021, School of Computing and Information Technology, Reva University, Bangalore.
- Session Chairperson at the National Conference on Computing and Security Technologies (NCCST'15) conducted by the Department of Information Technology, Velammal Engineering College on 8<sup>th</sup> April, 2015.
- Guest Lecture on “NP Hard Problems”, on 20<sup>th</sup> March 2015 for II year IT students of Velammal Engineering College.
- Speaker at the Faculty Development Programme on ‘Design and Analysis of Algorithms’ conducted by Department of Computer Science and Engineering, Velammal Engineering College on 12/12/2014, on the topics “LIMITATION OF ALGORITHM POWER, LOWER BOUND ARGUMENTS, P, NP COMPLETE and NP HARD”.

## **CONFERENCES / SEMINARS / WORKSHOPS ATTENDED :**

## **CONFERENCES / PUBLICATIONS:**

### **Book Chapters**

1. Anitha Julian and R. Ramyadevi, Journey into the Digital Frontier: Demystifying Neural Networks and Deep Learning, Book Chapter in Deep Learning in Medical Image Analysis: Recent Advances and Future Trends, CRC Press Taylor and Francis, 2024, Pages(s) 1-15. <https://doi.org/10.1201/9781003343172>
2. Anitha Julian and R. Ramyadevi, Construction of Deep Representations, Book Chapter in Prediction and Analysis for Knowledge Representation and Machine Learning, CRC Press Taylor and Francis, Feb 2022, Pages(s) 81-110.

<https://doi.org/10.1201/9781003126898>

### **Publications**

1. Poojasri S; Karuppusamy S; Loganathan R; Jelin Praisly J; Gerardine Immaculate Mary; Anitha Julian, "Smart Agricultural System Using Machine Learning to Predict Rainfall and Conserve Water for Irrigation," *2024 4th International Conference on Sustainable Expert Systems (ICSES)*, Kaski, Nepal, 2024, pp. 734-74. .
2. Budigi Poorna Nandini; P.Satyananda Reddy; Gerardine Immaculate Mary; Anitha Julian; Ramyadevi R.; Mayur Rele, "Smart Watch with Machine Learning Based Fall Detection System," *2024 IEEE Region 10 Symposium (TENSYP)*, New Delhi, India, 2024, pp. 1-7.
3. V. Selvi, T. G. Kumar, J. B. Shajilin Loret, K. S. Kumar, Anitha Julian and P. Rishi, "An Enhanced Probabilistic Elastic Net Regression Model (EPERM) for Heart Disease Prediction," *2024 International Conference on Future Technologies for Smart Society (ICFTSS)*, Kuala Lumpur, Malaysia, 2024, pp. 112-116.

4. Alen Wenish J; Sathishkumar K; Kishore R; Anitha Julian, "Applying Artificial Intelligence for Emotion Detection from Text Messages," 2024 International Conference on Trends in Quantum Computing and Emerging Business Technologies, Pune, India, 2024, pp. 1-4.
5. Anitha Julian and R. Devipriya, "Exploring Hyperparameter Tuning Strategies for Optimizing Model Performance," 2024 International Conference on Trends in Quantum Computing and Emerging Business Technologies, Pune, India, 2024, pp. 1-4.
6. Anitha Julian., Mary, G.I., Selvi, S., Rele, M., Vaithianathan, M., Blockchain based solutions for privacy-preserving authentication and authorization in networks, Journal of Discrete Mathematical Sciences and Cryptography, 2024, 27(2), pp. 797–808.
7. Anitha Julian and V. K, "Analysis and Prediction of Crimes Against Women," 2024 3rd International Conference for Innovation in Technology (INOCON), Bangalore, India, 2024, pp. 1-5.
8. Anitha Julian and Haripriya. K, "NLP based Resume Analysis and Adaptive Skill Assessment System," 2024 3rd International Conference for Innovation in Technology (INOCON), Bangalore, India, 2024, pp. 1-5.
9. Anitha Julian and Vibha Mukund, "Music to Score Conversion using Machine Learning," 2024 4th International Conference on Data Engineering and Communication Systems (ICDECS), Bangalore, India, 2024, pp. 1-5.
10. Anitha Julian and R. Booshanram, "Data-Driven Decisions: A Machine Learning Perspective on Loan Authorization," 2024 International Conference on Emerging Smart Computing and Informatics (ESCI), Pune, India, 2024, pp. 1-5.
11. Anitha Julian and Hariprasath S.R, "Optimizing Customer Segmentation through Machine Learning," 2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 413-416.
12. Anitha Julian and Vignesh S, "Computational Approaches for Identifying Potato Plant Pathogens," 2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 408-412.

13. R. Ramyadevi, A. Anbuselvan, Anitha Julian, S. Selvi and M. S. Murali Dhar, "Invoice Processing Automation Using UI Path Studio," 2024. IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 486-489.
14. V. Bharath Kumar and Anitha Julian, "AI-Driven Fitness Coach: Webcam-based Form Correction and Rep Counting for Optimized Workouts," 2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 399-402.
15. Anitha Julian and B. Pavithra, "Machine Learning Powered Genre Prediction for Next Level Book Recommendations," 2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 403-407.
16. Anitha Julian and S. Prathima, "Machine Learning Prognosis for Smartphone Dependency," 2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 558-562.
17. Anitha Julian and E. Umar Mohammed, "Understanding Global Warming: An In-depth Analysis and Future Predictions," 2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 513-518.
18. Anitha Julian, C. Maheswar, R. Ramyadevi, M. S. Murali Dhar and S. Selvi, "Analysis and Estimation of Discounts on Product Prices in ECommerce Sites," 2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 759-762.
19. Anitha Julian, D. Suresh and R. Ramyadevi, "Gesture-Driven Virtual Mouse: Empowering Accessibility through Hand Movements," 2024 IEEE International Conference on Computing, Power and Communication Technologies (IC2PCT), Greater Noida, India, 2024, pp. 755-758.
20. Anitha Julian, R. Deepika, B. Geetha and V. Jeslin Sweetty, "Heart disease prediction using machine learning", *Artificial Intelligence, Blockchain, Computing and Security: Taylor & Francis, ICABCS, Galgotias University, Greater Noida, Vol. 2, Dec 2023*, pp. 248-253.



21. Anitha Julian, R. Bangale Sampath Kumar Rao, Pedavalli Mukesh Chowdary and Narravula Upendra, "Digital currency price prediction", *Artificial Intelligence, Blockchain, Computing and Security*: Taylor & Francis, ICABCS, Galgotias University, Greater Noida, Vol. 2, Dec 2023, pp. 260-264.
22. Anitha Julian, R. Akash and Chennakampalli Chethan Reddy, "Recommendation of commodities exchange using various deep learning algorithm", *Artificial Intelligence, Blockchain, Computing and Security*: Taylor & Francis, ICABCS, Galgotias University, Greater Noida, Vol. 2, Dec 2023, pp. 470-475.
23. Anitha Julian, K. Ganesh and P. Kishore, "Ocular disease recognition using machine learning", *Artificial Intelligence, Blockchain, Computing and Security*: Taylor & Francis, ICABCS, Galgotias University, Greater Noida, Vol. 2, Dec 2023, pp. 504-508.
24. Anitha Julian, Darisi Venkata Veera Somasekhar, R. Harsh Vardhan and Harsh Vardhan Naidu, "Crime rate prediction using K-means algorithm", *Artificial Intelligence, Blockchain, Computing and Security*: Taylor & Francis, ICABCS, Galgotias University, Greater Noida, Vol. 2, Dec 2023, pp. 519-524.
25. Anitha Julian, M.S. Lekshmi Priya and V. Vijaya Chamundeeswari, "E-voting system with secure blockchain alert on data tampering", *Artificial Intelligence, Blockchain, Computing and Security*: Taylor & Francis, ICABCS, Galgotias University, Greater Noida, Vol. 2, Dec 2023, pp. 538-542.
26. S. Selvi, A. Thilagavathy, P. Shobarani, Anitha Julian, M. Lakshmi Haritha, P.R. Therasa, Text classification using similarity measure and fuzzy function concept analysis, *Artificial Intelligence, Blockchain, Computing and Security*: Taylor & Francis, ICABCS, Galgotias University, Greater Noida, Vol. 2, Dec 2023, pp. 538-542.
27. Anitha Julian, S. Selvi, Shyam Sundhar Kumaravel, Sabarijeyanth Veerasekaran and Sumanth Sai Sajja, "Assistive analytics for coronavirus-trends, patterns and predictions", *Artificial Intelligence, Blockchain, Computing and Security*: Taylor & Francis, ICABCS, Galgotias University, Greater Noida, Vol. 2, Dec 2023, pp. 203-207.
28. Anitha Julian, R. Ramyadevi, V. Subiksha, Sweetlin D, Breetha, "Real time object detection and object size measurement", *Artificial Intelligence, Blockchain, Computing and Security*: Taylor & Francis, ICABCS, Galgotias University, Greater Noida, Vol. 2, Dec 2023, pp. 208-212.

29. Anitha Julian and S. Raja Sahaya Subeka, Self-Operated and Efficient Recruitment Procedure Using Natural Language Toolkit, 2nd International Conference for Innovation in Technology (INOCON), Bangalore, India, 2023, pp. 1-5.
30. Anitha Julian, S. Karthick, T. Chandrakishore and A. Chandramohan, CO2 Emission Rating by Vehicles using Data Science, 2nd International Conference for Innovation in Technology (INOCON), Bangalore, India, 2023, pp. 1-6.
31. Anitha Julian, E. Ganesh Reddy, V. R. D. Reddy and D. V. V. Somasekhar, Safe Trade – A Stock Recommender using Machine Learning Algorithms, International Conference on Computer Communication and Informatics (ICCCI), Coimbatore, India, 2023, pp. 1-7.
32. Anitha Julian, B. N. Narendra, A. Chiranjeevi and A. V. C. Reddy, Prediction of Brain Tumor Classification by using CNN, International Conference on Computer Communication and Informatics (ICCCI), Coimbatore, India, 2023, pp. 1-5.
33. Anitha Julian, K. Sathishkumar, J. Alen Wenish and R. Kishore, Socializing Platform for Educational Institutions, International Conference on Computer Communication and Informatics (ICCCI), Coimbatore, India, 2023, pp. 1-4.
34. V. Umarani, Anitha Julian, J. Deepa, Sentiment Analysis using various Machine Learning a Learning Technique, Journal of the Nigerian Society of Physical Sciences Vol. 3 No. 4, Nov 2021, pp. 385-394.
35. Anitha Julian, Shaik Mohammed Rafi, Om Prakash Singh, Veerraju Gampala, Monali Nitesh Shetty and A Sudhakar, Evaluation of Efficient Data Visualization System for the Assessment of Similar Data Visualization Issues, Turkish Online Journal of Qualitative Inquiry (TOJQI), Vol .12, Issue 3, July 21, pp. 1802-1818.
36. Julian A., Marian Jose J. Multi-criteria Leader Selection in Ad Hoc Networks Using Fuzzy Analytical Hierarchy Process. In: Komanapalli V.L.N., Sivakumaran N., Hampannavar S. (eds) Advances in Automation, Signal Processing, Instrumentation, and Control. Lecture Notes in Electrical Engineering, vol 700, 2021, Springer, Singapore.
37. A.Revathi and Anitha Julian, ICOGNOS – A Secure and Adaptive E-Learning Suite, International Journal of Advanced Science and Technology, Vol. 28, No. 13, 2019, pp. 198-209.

38. Jose H., Julian A. Tamil Sign Language Translator—An Assistive System for Hearing- and Speech-Impaired People. In: Satapathy S., Joshi A. (eds) Information and Communication Technology for Intelligent Systems. Smart Innovation, Systems and Technologies, ICTIS 2018 vol 107. Springer, Singapore, 2019, pp. 249-257
39. Sathish Kumar R, Praveen Kumar M, Balaji S, Anitha Julian, Advanced Parking System using Internet of Things, International Journal of Contemporary Research in Computer Science and Technology, Vol. 3, Special Issue 2, March 2017, pp. 47-49.
40. Dhanalakshmi S, Sruthi R, Pavithra B, Anitha Julian, Stock Prediction using Artificial Neural Networks and Sentimental Analysis, International Journal of Contemporary Research in Computer Science and Technology, Vol. 3, Special Issue 2, March 2017, pp. 100-103.
41. Anitha M and Rhymend Uthariaraj V, Handling Misbehaving Nodes in Ad hoc Networks using Shapley Value, Transylvanian Review, vol. 24, no. 9 Special Issue (XXIV), 2016, pp. 1324-1337.
42. Anitha M and Rhymend Uthariaraj V, Enforcing Cooperation among Misbehaving Nodes in Ad hoc Networks using Shapley value to Assign Economic Virtual Currency, Asian Journal of Information Technology, vol. 15, no. 12, 2016, pp. 1983-1986
43. Anitha M and Rhymend Uthariaraj V, Inconsistency Elimination in Selection Criteria of Cluster Heads in Ad hoc Networks, International Journal of Applied Engineering Research, ISSN 0973-4562, vol. 10, no. 69, 2015, pp. 135-139.
44. Anitha M and Rhymend Uthariaraj V, Improved Life of Watchdog Nodes in Ad hoc Networks, International Journal of Security and its Applications, vol. 8, no. 6, 2014, pp. 273-284.
45. Suresh Kumar C and Anitha Julian, Wearable Solution for Visually Impaired Person, International Journal of Innovative Research in Science, Engineering and Technology (IJIRESET), 2014, pp. 1784-1753.
46. Bhuvaneshwaran S and Anitha Julian, Tracking of Whole Fluorescent Cells Based on the Wavelet-Otsu Model, 1st International conference on VLSI Computation, Networking, Drives and System Design, Sethu Institute of Technology, Virudhunagar, 28th March 2014, Proceedings under Publication in CiiT International Journals.

47. S. Mahesh Kumar, Anitha Julian, An Embedded Digital Image Processing System using Blackfin 548 DSP, CIIT International Journal, July 2012,
48. Catherine. I and Anitha Julian, 'Searching Video Blogs with Integration of Context and Content Analysis', International Journal of Computational Intelligence Techniques, Vol. 1 No. 10976–0466 and E-ISSN: 0976–0474, 2010 pp. 2-5.
49. Senthilraj. S and Anitha Julian, 'Applications of B Method for Software Design using Discrete Mathematics', International Journal of Algorithms, Computing and Mathematics, Vol. 1, No. 2, 0974-3367, 2008, pp. 29-38.

#### **SEMINARS / WORKSHOPS ATTENDED:**

1. FDP on Advanced AI: Tools and Algorithms (AATA-2024) at Sri Sivasubramaniya Nadar College of Engineering from 16th to 21 December 2024.
2. AICTE Training and Learning (ATAL) Academy Faculty Development Program on AI-Driven Network Security: Advanced Techniques for Intrusion Detection at Rajalakshmi Engineering College from 9th to 14th December 2024.
3. Professional Development Program on Predictive Analytics at NITTTR Chennai, from 22nd to 26th July 2024.
4. One Week Faculty Industry Training Programme (FITP) on Explainable Artificial Intelligence (XAI Technology) in Association with MIT Square, London organized by Department of Computer Science and Engineering, SRM Institute of Science and Technology, Ramapuram, Chennai from 8th to 12th July, 2024 and secured Assessment grade A.
5. Faculty Development Program on Machine Learning at St. Joseph's College of Engineering from 24th to 28th June 2024.
6. IEEE CS Day at Infosys Campus, Chennai on 15th March 2024.
7. Five Days Faculty Development Program on Building Advanced Data Analytics Applications with Cloud under Next Gen Employability Program from 8th Jan to 12th 2024.
8. Faculty Development Program on Transformation in Healthcare - Smart Cities at K.S. Rangasamy College of Technology organized by IEEE-EMBS Madras Section from 12th to 30th August 2023.

9. Two weeks International Faculty Development Program on Research Tools at Easwari Engineering College from 3rd to 14th June 2023.
10. One week Virtual Faculty Development Program on Emerging Research Trends in Blockchain and Data Science at Dr. M.G.R Educational and Research Institute from 8th to 12th May 2023.
11. Six Days Faculty Development Program on Data Analytics at Panimalar Engineering College from 26th to 31st December 2022.
12. Two weeks International Faculty Development Program on Data Science Tools at Easwari Engineering College from 7th to 20th Oct 2022.
13. Two Days Online National workshop on Edge computing and its applications, organized by the Department of Computer Science and Engineering, SSN College of Engineering during 26 & 27 August 2022

**PROFESSIONAL MEMBERSHIPS:**

- Computer Society of India , Life Member ID 00168502
- International Association for the Engineers (IAENG) ID 278919
- Universal Association of Computer and Electronics Engineers (UACEE)
- Society of Digital Information and Wireless Communication (SDIWC) ID 29610
- Institute of Research Engineers and Doctors (iRED)

**OTHER DETAILS:**

- NBA Coordinator for the Department of Computer Science and Engineering
- OBE Coordinator for the Department of Computer Science and Engineering
- Event Coordinator at Drestein