

Dr. B A Sujathakumari Profile

1. Name: Dr. B A Sujathakumari



2. Designation: Associate Professor

3. Qualification: B.E., MTech, PhD

4. Email/LinkedIn/ORCID: ORCID ID 0000-0001-6244-0835

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5. Work Experience: 35 years

6. Specialization: Signal Processing, Machine Learning

7. Subjects Taught: Digital Signal Processing, Advanced Embedded Systems, Mobile Computing

8. Research Guidance: ---

9. Publications:

1. Published a paper in June 2015 titled “ Ultrasound Array Modelling and Beam forming using Field II” in IJERMT.

2. Published a paper in May 2015 titled “Smart Device Connectivity in Car Radio” in IJARSE.

3. Comparative Study of Feeding Techniques for 60GHz Microstrip Patch Antenna Array Design” in IEEE Indian Antenna Week 2016.

4. “Dual Sim Dual Active Feature in a 3G Modem: A Comprehensive Survey” in IJERME Volume I, Issue II 2016.

5. ”Driver Drowsiness Detection using Eye Blinking Algorithm” in IJAREEIE Volume 5, Issue 4, April 2016

6. “ Automated Testing of Infotainment System” in IJRITTC, volume 5 , Issue 5, May 2017

7. “ Software Test Automation with Robot Framework” in IJRITTC, volume 5 , Issue 6, June 2017

8. “Machine – to – Machine Talk for Home Automation Appliances” in IJERT, volume 5 , Issue 20, 2017
9. Active Noise Cancellation using Adaptive Filter Algorithms: in IJERT, volume 7, Issue2, February 2018
10. B A Sujathakumari and Abhishek P “Wireless Client Device Finger Printing”, Asian Journal of Convergence in Technology, Volume IV , Issue II, August 2018.
11. Husna Sabat and B A Sujathakumari “ MAC Address Blacklist based on the user’s behavior after connecting to the network”, Asian Journal of Convergence in Technology, Volume IV , Issue II, August 2018.
12. B A Sujathakumari, Shreeharsha B S, Prince Verma, Sathvik Shivram and Raksha A R “ Heart Rate Measurement using Face Video with Noise Suppression”, 4th International Conference for Convergence in Technology (I2CT), SDMIT Ujire, Oct 27-28 , 2018.
13. B A Sujathakumari, Lingaraj Asundi, Priyanka V Devoor, Shree Raksha K V and Sonika R “Robot Mediated Imitation Learning for Children with Autism”, 4th International Conference for Convergence in Technology (I2CT), SDMIT Ujire, Oct 27-28 , 2018.
14. Thejaswini K P and B A Sujathakumari “ Review on Early Detection of Alzheimer’s Disease using different Techniques” JETIR, Vol 6, Issue 1, Jan 2019.
15. Usharani C M and B A Sujathakumari “ Review of Monitoring Systems used in Route Planning for Electric Vehicles” JETIR, Vol 6, Issue 1, Jan 2019
16. B A Sujathakumari, M H Abhishek, Darshan Singh, Aneesh K N and B S Mahanand presented a paper titled “ Detection of MCI from MRI using gradient Boosting Classifier “ in the first IEEE international conference on Advances in Information Technology (ICAIT -2019) during July 2019.
17. B A Sujathakumari and Thejaswini K P presented a paper titled” GDA Based Classification Algorithm for Early Detection of Alzheimer’s disease“in International Conference on Intelligent Computing and Control Systems (ICICCS 2019) during May 2019. IEEE Xplore Part Number: CFP19K34-ART; ISBN: 978-1-5386-8113-8.
18. B A Sujathakumari and Usharani C M presented a paper titled “Routing An Electric Vehicle For Optimum Energy Consumption With EE-MAODV Using NS3” in International Conference on Intelligent Computing and Control Systems (ICICCS 2019) during May 2019. IEEE Xplore Part Number: CFP19K34-ART;

ISBN: 978-1-5386-8113-8

19. B A Sujathakumari and Meera Giridhar published a paper titled “ Traffic Simulation in SUMO” in Journal of Composition Theory ISSN : 0731-6755, Volume XII Issue VI JUNE 2019.
20. B A Sujathakumari, Chiranth N L, Pooja P Published a paper titled “Android Chat Application Development using AWS” in International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-2S6, July 2019.
21. Sujathakumari B A and Sadaf Farheen presented a paper titled “ Block chain based data security for financial transaction system” in ICICCS 2020 during May 2020. Paper is indexed in IEEE explorer with ISBN 978-1-7281-4875-5.
22. B A Sujathakumari , A G Varun Yadiyala, Aruna B J, Radha C, Shwetha B presented a paper titled “Early Detection of Mild Cognitive Impairment using 3D Wavelet transform” in Springer Conference ICDICI-2020 during July 2020
23. B A Sujathakumari , Charitha Shetty M, Lakshitha H M, Mehulkumar P Jain, and Suma S presented a paper titled “Predictive analysis for early detection of Alzheimer's Disease” in Springer Conference ICDICI-2020 during July 2020.
24. ‘B A Sujatha Kumari, Charitha Shetty M, Lakshitha H M, Mehulkumar P Jain, Suma S published a paper titled ‘Exploring the Methods on Early Detection of Alzheimer's Disease ’ in IJRTE , ISSN: 2277-3878 (Online), Volume-9 Issue-1, May 2020
25. Sujatha Kumari B A, A G Varun Yadiyala, Aruna B J, Radha C, Shwetha B published a paper titled ‘Early Detection of MCI’ in IJRTE , ISSN: 2277-3878 (Online), Volume-9 Issue-1, May 2020.
26. Sujatha Kumari B A, Sadaf Farheen published a paper titled “Security of IoT System using Blockchain” in IJRTE , ISSN: 2277-3878 (Online), Volume-9 Issue-1, May 2020.
27. aaS. Gayathri, B. A. Sujathakumari, Nishanth S. Murthy, Mukundh Balabhadra, Nikhil S. Joshi & C. Sandesh published a paper titled “Digitized Braille cell: a novel solution for visually impaired “ in IIIT, a Springer publication , ISSN 2511-2104, November 2019.
28. B A Sujathakumari, Shreyas K S, Skanda M S, Manoj Kumar, Prajwal C D presented a paper titled “ IOT Based Remote Patient Monitoring System Using Microservices Architecture” in ICSCS 2021, Springer conference on 10th June

2021.

29. B A Sujathakumari , A G Varun Yadiyala, Aruna B J, Radha C, Shwetha B published a paper titled “Early Detection of Mild Cognitive Impairment using 3D Wavelet transform” in Springer book “Data Intelligence and Cognitive Informatics, Algorithms for Intelligent Systems” https://doi.org/10.1007/978-981-15-8530-2_36.

30. B A Sujathakumari , Charitha Shetty M, Lakshitha H M, Mehulkumar P Jain, and Suma S published a paper titled “Predictive analysis for early detection of Alzheimer's Disease” in Springer book “Data Intelligence and Cognitive Informatics, Algorithms for Intelligent Systems” https://doi.org/10.1007/978-981-15-8530-2_56.

31. B. A. Sujatha Kumari, K. S. Shreyas, M. S. Skanda, Manoj Kumar and C. D. Prajwal published a paper titled “IOT-Based Remote Patient Monitoring System Using Microservices Architecture” in Springer book “Advances in Intelligent Systems and Computing” https://doi.org/10.1007/978-981-16-5301-8_28.

32. B A Sujathakumari, Dr. Sudarshan Patil Kulkarni, Ayesha Sultana presented a paper titled “Hybrid Classification Algorithm for Early Prediction of Alzheimer's Disease” in ICCIDA- 2022, Springer conference on 8th January 2022.

33. B A Sujathakumari, Dr. Sudarshan Patil Kulkarni, Ayesha Sultana published a paper titled “Hybrid Classification Algorithm for Early Prediction of Alzheimer’s Disease” in Springer Lecture Notes on Data Engineering and Communications Technologies. https://doi.org/10.1007/978-981-19-3391-2_29.

34. B A Sujathakumari, Pallavi , Shashank M P, Vachana K A published a paper titled “Emergency Vehicular Virtual Green Corridor Simulation using Sumo Simulator “ in JAC : A Journal of Composition Theory Volume XV, Issue X, October 2022, ISSN :0731-6755.

35. Ms. Sujathakumari B A, Mr. Sudarshan Patil Kulkarni, Ms. Chinmaya A, Mr. Gowtham R, Mr. Suhas H J, Mr. Jayanth K G presented a paper titled “Enhancing MCI Detection with a Hybrid Machine Learning Approach” at springer conference ICACECS 2023 held on 22nd and 23rd September 2023

36. B A Sujathakumari, Sudarshan Patil Kulakarni, Raghavendra G, Mahammed Arif Kasab, Girinatham Sai Jayanth, Vishwas presented a paper titled “ Hardware

Accelerated classifier for Early detection of Alzheimer's disease" at ICRTST-2023 held on 18th and 19th October 2023.

37. B A Sujathakumari, Sudarshan Patil Kulakarni, Sharayu Siddhanti presented a paper titled "preprocessing of mri data for the early detection of alzheimer's Disease using DWT" at VSPICE-2023 held on 19th and 20th December 2023.

38. B A Sujathakumari, Sudarshan Patil Kulakarni, Shwetha S presented a paper titled "Hardware accelerated Hybrid classifier for MCI detection" at VSPICE-2023 held on 19th and 20th December 2023

39. B A Sujatha Kumari, Sudarshan Patil Kulkarni, and C G Sinchana published a paper titled "FPGA implementation of Neural Nets "in International Journal of Electronics and Telecommunications, 2023, Vol. 69, No. 3, Pp. 599-604 DOI: 10.24425/ijet.2023.146513

40. B A Sujathakumari , Bhavyashree Y R , K N Chethana published a paper titled "Automatic e-Certificate Generation using MATLAB " in Journal of Xidian University , ISSN No:1001-2400, Volume 17, Issue 10, 2023

41. B A Sujathakumari, Jeevankumar M, Pooja D S published a paper titled "Analyzing TCP Congestion Control Performance in Networks Using NS-3" in JAC: A Journal of Composition Theory, ISSN: 0731-6755, Volume XVI, Issue X, October 2023

42. B A Sujathakumari, Sudharshan Patil Kulkarni, Mahammadarif Kasab, Girinatham Sai Jayanth, Raghavendra G and Vishwas H N published a paper titled "hardware Accelerated classifier for early detection of Alzheimer's disease" in Semiconductor Optoelectronics, Vol. 42 No. 2 (2023), 693-705

43. B.A. Sujathakumari, Sudarshan Patil Kulkarni, Vikas Hallikeri published a paper titled "Brain magnetic resonance imaging image classification for Alzheimer's disease and its hardware acceleration" in IAES International Journal of Artificial Intelligence (IJ-AI) Vol. 13, No. 2, June 2024, pp. 1272~1281.ISSN: 2252-8938, DOI: 10.11591/ijai.v13.i2.pp1272-1281.

44. B A Sujathakumari and Keerthana B M published a paper titled "Efficient Routing in Mobile Ad Hoc Networks: A Protocol Performance Comparison" in Journal of Xidian University, <https://doi.org/10.5281/Zenodo.14172855>, ISSN No:1001-2400.

45. B A Sujathakumari, Kruthi Krishnagiri, and Shreelaxmi V Godachi published a paper titled "Blockchain-Enhanced AODV Protocol for BlackHole Attack

Prevention” in JAC : A Journal Of Composition Theory Volume XVII, Issue XI, November 2024, ISSN : 0731-6755.

46. Presented a paper titled “Liquid and Spiking Neural Networks: A new era in Alzheimer’s diagnosis” at international springer conference ICACECS 2025 during August 6th to 8th August 2025.

47. B. A. Sujathakumari, Sudarshan Patil Kulkarni, Abhishek Gadi, C. K. Vijaykumar, H. V. Ashokkumar, and J. H. Mahaveer published a paper titled “DTCWT-Based FPGA System for Alzheimer’s Disease Multiclass Detection” in Lecture Notes in Networks and Systems, Soft Computing and Signal Processing Proceedings of 7th ICSCSP 2024, Volume 2, ISSN 2367-3370

48. B. A. Sujathakumari, Sudarshan Patil Kulkarni, A. Manoj, U. Dhanush Gowda, Gurukiran Goudapgol, and R. Prithvi published a paper titled “ An Improved DTCWT-Based Multiclass Classifier for AD Detection” in Lecture Notes in Networks and Systems, Soft Computing and Signal Processing Proceedings of 7th ICSCSP 2024, Volume 2, ISSN 2367-3370

49. Sujathakumari B A, Rakshith kumar M, Raghunandana V Mulgund published a paper titled “Real-Time Driver Fatigue Detection for Enhanced Road Safety” in International Research Journal on Advanced Engineering and Management e ISSN: 2584-2854, Volume: 03, Issue: 09 September 2025

50. M. S. Shalini, B. A. Sujathakumari, Lalithya Govardhan, and P. S. Gagan Deep published a paper titled “Multimodal Playlist Recommendation System” in Lecture Notes in Networks and Systems , ICT Analysis and Applications Proceedings of ICT4SD 2025, Volume 12 , 2025

10. Patents: NIL

11. Projects/Consultancy: --

12. Book(s) Published: --

13. FDPs organised/attended:

Sl. no	Title of the program	Date and Duration	Organising Institution	Programme Sponsoring Authority
1.	Neuromorphic Architecture- Advanced Topics on Spiking Neural Networks and their	2 weeks 19 th to 30 th December 2017	SJCE	GIAN

	Learning Algorithms			
2.	Advanced course on Biomedical Signal Processing	2 weeks 2 nd to 13 th January 2018	SJCE	GIAN
3.	Analysis of Biomedical Signals and their Mathematical modeling	1 week 24 th to 28 th December 2018	JSSSTU	JSSSTU
4.	Development of Smart Sensor Technology towards Electronic Applications	1 week 4 th to 8 th February 2019	JSSSTU	JSSSTU
5.	Digital Circuits	12 weeks June to August 2019	SJCE	NPTEL Completed with ELITE +Silver grade
6.	Next Generation Wireless Networks and the technologies- A Practical Perspective	1 week 19 th to 23 rd August 2019	SJCE	TEQIP
7.	Semiconductor Device modeling using Visual TCAD and Genius 3D & Symica AMS IC Design tool kit	1 week 22 nd to 27 th July 2019	SJCE	TEQIP
8.	LabView and Virtual Instrumentation	1 week 18 th to 22 nd June 2019	SJCE	TEQIP
9.	Recent Advances in Wireless Communication Systems	1 week 1 st to 5 th July 2019	SJCE	TEQIP
10.	Data Science and IOT	1 week 9 th June to 13 th June 2020	SECAB, Vijayapura	ISTE

11.	Advances in Artificial Intelligence, Machine Learning and Robotics	1 week 6 th July to 10 th July 2020	VVCE	VVCE
12.	Sensors and their Applications	1 week 13 th July to 17 th July 2020.	Vemana Institute	IEEE
13.	Research Avenues in Healthcare Technology	1 week 21 st July to 25 th July 2020.	SJCE	TEQIP
14.	Fabrication of Electronic devices using Nanomaterials	2 weeks 24 th August to 4 th September 2020	SJCE	TEQIP
15.	Healthy Lifestyle Management during and after Covid Scenario	1 week 19 th to 23 rd October 2020	SJCE	Covid Cell
16.	Computer Science and Biology	1week 2 nd to 6 th November 2020.	Mangalore University	ATAL
17.	Artificial Intelligence	1 week 27 th to 31 st January 2021	SJCE	ATAL
18.	Smart City: Recent Developments in Smart City	1 week 22 nd to 27 th February 2021	SSIT	SSIT, Tumkuru
19.	Artificial Intelligence and its Applications	1 week 24 th to 29 th May 2021	SJCE	SJCE

20.	Best Teaching Learning and Assessment Practices in Computer Science/Information Technology based on National Education Policy (NEP)	1 week 5 th to 9 th July 2021	SJCE	ATAL
21.	Machine Learning	1 week 19 th to 24 th July 2021	IIT, Kanpur	EICT
22.	Software defined Radio for next generation wireless communication systems	1 week 17 th to 21 st January 2022	KLEIT, Hubli	VGST
23.	Data science & its Applications	2 weeks 7th -16th March, 2022	NIT Warangal	(MeitY), GOI
24.	Outcome based Education	1 week 10th to 14th October 2022.	JSSSTU	NIITR Chennai
25.	AI applications for Engineers	23 rd January to 1 st February 2023	NIT Warangal	(MeitY), GOI
26.	Recent Developments in Neural Networks and Embedded RTOS	09th-13th October 2023.		ISTE
27.	AI, ML, DL	8 th to 18 th July 2024.	NIT Warangal	(MeitY), GOI

28.	High Performance Computing in Engineering Applications (HPCEA)	28th February to 3rd March 2024	NIT Warangal	NSM-DST
29.	Internet of Things (Empowering Innovation with IoT: Concepts to Applications)	30.06.2025 to 04.07.2025	Vidyalankar Polytechnic, Mumbai	ISTE
30.	AI innovations in computer vision, medical imaging and IOT	8 th January 2025 to 18 th January 2025	NIT, Raipur	(MeitY), GOI
31.	Information Security and Privacy preserving strategies for IOT	12th January to 6th February 2025.	NIT Warangal	(MeitY), GOI

14. Achievements: --

15. Professional Membership: IET, ISTE, IETE