

BIO DATA



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1. Educational Qualification

Degree	Branch / Specialization	Institute/University	Year of Passing
B.E.	Computer Science and Engineering	P.T.R. College of Engineering & Technology, Madurai.	2006
M.E	Computer Science and Engineering	National Engineering College, Kovilpatti.	2009
Ph.D	Information and Communication Engineering	Anna University, Chennai	2023

2. Professional/ Industry Experience

: (in chronological order)

S.No	Designation	Institution/Organization	Period	
			From	To
1	Associate Professor	Ramco Institute of Technology	08.08.2024	Till Date
2	Assistant Professor(SG)	AAA College of Engineering & Technology, Sivakasi.	01.06.2023	06.08.2024
3	Assistant Professor		04.08.2021	31.05.2023
4	Assistant Professor	Srividya College of Engineering & Technology, Virudhunagar.	01.07.2010	31.07.2021
5	Senior Lecturer	Pannai College of Engineering & Technology, Sivagangai	11.09.2006	29.06.2010

3. Research Interest Medical Image Processing, Machine Learning, Deep Learning

4 Publications

4.1 JOURNAL PUBLICATIONS

1. K. Palraj (2026), Advanced artificial intelligence-based classification of corneal layers using residual self-attention and dilated convolutional networks: enhancing biomedical signal processing, *Biomedical Signal Processing and Control*, Volume 113, Part B, 108758, ISSN 1746-8094, <https://doi.org/10.1016/j.bspc.2025.108758>.
2. Palraj K(2025), Multimodal Image Fusion Using MRI and Ultrasound to Diagnose Fabry Disease. *Journal of Environmental Protection and Ecology*, 26(4).
3. Palraj Karuppasamy, (2025) Impact of various ethical considerations on sales performance in the it industries using consultative selling techniques” *TPM*,32(8), ISSN: 1972-6325,
4. Karuppasamy Palraj(2025), Graphene Terahertz Metasurface Sensor Enabled by AI for Rapid, High-Precision Sperm Detection in Fertility Assessment. *Plasmonics*, 21(1) <https://doi.org/10.1007/s11468-025-03052-x>
5. Karuppasamy Palraj(2025), Design and Optimization of a Hybrid Graphene-Copper Terahertz Metasurfaces Biosensor for High- Sensitivity Malaria Detection: Integration of Machine Learning for Performance Enhancement and Binary Encoding Applications. *Plasmonics*, 21(1) <https://doi.org/10.1007/s11468-025-03099-w>
6. K. Palraj (2025), “Hexa-mobile net for NOMA Rayleigh fading channel estimator via Hexagonal pilot insertion”, *Ain Shams Engineering Journal*, 16(04).DOI: <https://doi.org/10.1016/j.asej.2025.103317>.
7. K. Palraj (2024) Evaluating Water Quality through Macroinvertebrate Diversity and Physicochemical Parameters in the Thamirabarani River Basin, *Global NEST Journal*, 26(10). DOI: <https://doi.org/10.30955/gnj.06044K.Palraj>, “Smart AI Based Automatic number plate detection”, *Journal For Basic Sciences Vol.23 Issue.4, 2023*, ISSN NO : 1006-8341.
8. K.Palraj, “An automatic brain tumor size measurement method for MRI”, *AIP Conference Proceedings* (2022); <https://doi.org/10.1063/5.0078330>. (Scopus)
9. Palraj.K , “Predicting the Abnormality of Brain and Compute the Cognitive Power of Human Using Deep Learning Techniques using Functional Magnetic Resonance Images”, *Journal of Soft Computing Vol. 25. (Springer), 2021*, DOI: 10.1007/s00500-021-06292-1. (SCI)
10. Palraj.K , Deep learning methods for predicting brain abnormalities and compute human cognitive power using fMRI, *Journal of Intelligent & Fuzzy Systems*, DOI:10.3233/JIFS-202069, 2021. (SCI)
11. Palraj.K , An Approach for Detection of Brain Tumor using Deep Learning and Determination of Tumor Range from MRI, *Tierärztliche Praxis* , Vol.40, 2020.
12. Palraj.K , “Classification of Tumors using PCA and SVM from MRI” , *International Journal of Advanced Computing and Communication Systems* , Vol.4 Issue.1 July2017.
13. Palraj.K , “Centralization Of Public Distribution System Using Smart Card” , *Pakistan Journal of Biotechnology*, VOL. 13, 2016. (Scopus)
14. Palraj.K , “Reclamation of 2d Images From 3d Medical Resonance Images Using SWT”, *International Journal of Multidisciplinary Research Centre* , Vol. 1, Issue 05,2015

15. Palraj.K, "Medicinal Image Fusion Using Stationary Wavelet Transform and Fuzzy Logic", IJSRD - International Journal for Scientific Research & Development| Vol. 3, Issue 03, 2015| ISSN (online):2321-0613.
16. Palraj.K, "Survey on Image Fusion using Stationary Wavelet Transform and Fuzzy Logic", IJSTE - International Journal for Scientific Research & Development| Vol. 1, Issue 05, Nov 2014.
17. Palraj.k, "Declaring Time Parameter to data in Active Storage Framework", International Journal of Advanced Research in Computer Engineering and Technology, Volume 2 Issue12. December 2013, PP3127-3131.
18. Palraj.K , "Detection of Brian lump with image Segmentation", International Journal of Advanced Research in Computer Science Engineering and Information Technology (IJARCSEIT), Volume 3 issue2. November 2013 (Impact Factor 1.5)

4.2 CONFERENCE PUBLICATIONS

1. Palraj K, "Federated Representation Adaptation for Harmonizing Cross-Border Healthcare Records Under Privacy Constraints," 2025 International Conference on Electrical Engineering and Informatics (ICEEI), Kuching, Malaysia, 2025, pp. 1-7, doi: 10.1109/ICEEI68459.2025.11330996. Date of Conference. 13-15 November 2025.
2. Palraj Karuppasamy "Deep Learning Advancing Image Classification - Neural Network Design and Performance Analysis," 2025 3rd International Conference on Advancements in Electrical, Electronics, Communication Computing and Automation (ICAECA), Coimbatore, India, 2025, pp. 1-5, doi: 10.1109/ICAECA63854.2025.11012262.
3. K.Palraj, "Design and Development of Information Retrieval System", National Conference on ACIS-2009, Kongu Engineering College, Erode,20th July 2009.
4. K.Palraj, "A Formulating daraware house for upcoming portable virtualization", International Conference on ICRTCT-2013, Dr.N.G.P.Arts and Science College, Coimbatore, 30 & 31 Jan 2013.
3. K.Palraj, "Multimodel Image Fusion using Stationary Wavelet Tranform and Fuzzy logic" International conference on Recent Advances and innovations in Engineering andTechnoloy(ICRAIET'15), Ranganathan Engineering College, Chennai
4. K.Palraj, "Transformation of 3D to 2D image with SWT in MRI", IEEE International Conference on Computing Technologies and Intelligent Data Engineering , National Engineering College, Kovilpatti, 7 to 9 Jan2016.
5. K.Palraj, "Classification of Tumors using PCA and SVM from MRI", International Conference on Advanced Computing & Communication Systems, Sri Eshwar College of Engineering, Coimbatore, 6 & 7 Jan2017
6. K.Palraj, "An automatic brain tumor size measurement method for MRI", AICTE sponsored National Online Conference on Data Science and Intelligent Information Technology, National Engineering College, Kovilpatti,14-15,May 2021
7. K.Palraj, "Traffic Sign Detection and Recognition using convolucional Neural Network", International Conference on Recent innovations in Computer, Communication and Manufacturing, AAA College of Engineering and Technology, Sivakasi, 12 & 13 April 2023.
8. K.Palraj, "Brain Tumor detection using Deep Learning using Deep convolucional Neural Network", International Conference on Recent innovations in Computer, Communication and Manufacturing, AAA College of Engineering and Technology, Sivakasi, 12 & 13 April 2023.
9. K.Palraj, "Virtual Mouse using Hand Gesture Recognition", International Conference on Recent innovations in Computer, Communication and Manufacturing, AAA College of Engineering and Technology, Sivakasi, 12 & 13 April 2023.

5. Short term Courses / Seminars /FDP/Workshop/Conference Attended:

Sl.No	Title of the event	Organized by	Date	
			From	To
1.	Certificate in Java Programming	ICT Academy	23.08.2011	30.08.2011
2.	Semantic Information Retrieval from Medical Database for Clinical Decision Support System	National Engineering College	06.04.2012	07.04.2012
3.	Research motivation -A Perspective	National Engineering College	30.11.2012	1.12.2012
4.	FSIT-Principles of Management	ICT Academy	06.07.2013	07.07.2013
5.	Cloud Setup -Software and Solutions	Anna University Chennai	24.10.2013	25.10.2013
6.	Advanced Java Programming	AVC College of Engineering	16.12.2013	22.12.2013
7.	Research issues in Digital Image Processing	Mepco Schlenk Engineering College,Sivakasi	21.03.2015	-
8.	Advancement in Biomedical Signal and Image Processing	Madras Institute of Technology	29.10.2015	30.10.2015
9.	Proposal drafting for research and Innovation Project	AAA college of Engineering & Technology	11-10-2021	
10.	Intellectual Property Rights and Smart Ways for Writing a Successful Research Grant Proposal	Department of Computer Science and Engineering (Cyber Security), Karpagam College of Engineering	09.12.2021	10.12.2022
11.	Intellectual Property Rights, startup-up & innovations	AAA college of Engineering & Technology	29.12.2021	
12.	Importance of Assistive Technologies in Higher Education for Differently Abled Learners	Vellore Institute of Technology, Vellore	18.07.2023	
13.	UMAGINE TN Global Conference	Department of IT & DS	23.02.24	24.02.2024
14.	Computational Intelligence	AICTE & ATAL NIT,Agartala	03.01.2022	07.01.2022
15.	Cyber Physical Systems and Industrial IoT	AICTE & ATAL SRM Institute Of Management Technology	17.01.2022	21.01.2022

16.	Unveiling Quantum Computing From Qubits To Quantum Algorithms: An Interdisciplinary Engineering Perspective	R.M.K. College Of Engineering And Technology	02.12.2024	07.12.2024
17.	AR/VR Application Development	Sastra University	06.01.2025	11.01.2026
18.	Transforming Industries With Ai : Deep Learning Breakthroughs And Real-World Applications	Srm Institute Of Science And Technology Ramapuram Campus	20.01.2025	25.01.2025
19.	DEMYSTIFYING AI AND DATA SCIENCE	PALS and Meritus.AI	23.01.2025	24.01.2025
20.	IEEE Training on "IEEE Xplore	Ramco Institute of Technology	20-02-025	-
21.	AI-Driven Cryptography: Building Next-Gen Secure Networks"	Sri Krishna College of Technology, Coimbatore	14.07.2025	15.07.2025
22.	Introduction to Embedded Systems and Robotics	Cambridge Institute of Technology North Campus, Bengaluru	30.10 2025	31.10 2025
23.	AI Enhanced Education	Sree Sowdambiga College of Engineering	22.12.2025	-
24.	IoT-Driven Embedded Technologies for Real World Automation	Arunachala College Of Engineering for Women	19.01.2026	24.01.2026
25.	Securing the Future: Artificial Intelligence, Quantum Computing and Cyber Defence Strategies	Dr. G. U. Pope College of Engineering	25.05.2026	30.05.2026

6. Online Courses

S.No	Course title	University	Date
1.	Introduction to Research	NPTEL	Jul-Sep 2015
2.	Introduction to Programming in C	NPTEL	Jan-Mar 2016
3.	Programming in Java (Elite)	NPTEL	July- October 2023
4.	AI in Marketing (Elite)	NPTEL	Jan-Apr 2025
5.	Programming in Java (Gold + Elite)	NPTEL	July- October 2025
6.	Fundamentals of Digital Marketing (Elite)	NPTEL	Feb-Apr 2026

11. Patents filed/awarded

S.No	Title of the Invention	Application Number	Inventors	Filing Date	Status
1.	Concrete Crack Detection And Quality Monitoring System On Gsm-Iot Sensors With Raspberry PI	202041046487	1 . Dr.K.Maharajan 2 . Dr.S.Senthil Kumar 3 . Dr.A. Shenbagarajan 4 . Mr.N.Mohamed Athil 5 . Dr. Ashok Koujalagi 6 . Dr.S.Amutha 7 . Dr.Nik Alif Amri Nik Hashim 8 . Dr.Fauzan Hafiz Muhammad Safri 9 . Mr.K.Palraj 10 . Dr.N.N.Murthy	24/10/2020	Published on 06/11/2020
2	Artificial Intelligence Enabled Image Analysis for Battery Performance Optimization Using Deep Neural Networks	202541088621	1. Ms. Meenakshi S 2. Dr. H. Vennila 3. Dr. N. Mahalakshmi 4. Dr. P. S. Gomathi 5. Dr. Jeya Caleb J 6. Ms. Jeba Malar. M 7. Dr. V. Samuthira Pandi 8. Dr. K. Palraj 9. Dr. Sampath K 10. Ms. Munjeti Sowjanya	17/09/2025	Published On 17/10/2025

12. Membership in Professional societies Life Membership in ISTE

Any others (Board of studies/Governing Council/Staff Selection/Reviewer/other duties)

- Reviewer in Journal of Wireless Networks
- Reviewer for the Journal of Wireless personal Communication.
- Reviewer in Journal of Intelligent & Fuzzy Systems
- Reviewer for the Journal of Soft Computing.
- Reviewer for the Biomedical Signal Processing & Control