CURRICULUM VITAE



PERSONAL PARTICULARS

Name	**:**	**Dr. J. RAJA**
Designation	**:**	**Principal**
Details of Employment	**:**	**Professor & Head** **Department of ECE** **Adhiparasakthi Engineering College** **Melmaruvathur -603319**
Qualification	**:**	**M.E., Ph.D**
Date of birth and Age	**:**	**21.05.1972- 52 yrs**
Total teaching Experience	**:**	**25 years**
Contact information	**:**	**Jayashree Illam,** **25/B37 Alagesa Nagar** **Chengalpattu** **Kancheepuram Dist.-603001.**
Mobile number	**:**	**9894657971**
Landline number	**:**	**044-27529585**
E-mail id	**:**	**principal@apec.edu.in**

Particulars of Educational Qualification:

Degree	Specialization	Year of passing	Class obtained	Name of the College & University
Ph.D	Digital VLSI Design	2013	Highly commanded	MIT, Anna University
M.E.	Power electronics and Drives	2004	First	CEG, Anna University
B.E.	ECE	1999	First	CEG, Anna University

Title of Thesis in Ph.D. : VLSI Implementation of high Throughput MIMO OFDM Transceiver

Professional Experience:

Name of the college	Designation	Duration	Total no. Of years
Bharath Polytechnic College	Lecturer	22.08.1995 - 04.08.2000	5 years
Adhiparasakthi Engineering College	Lecturer	04.08.2000 - 31.10.2007	5 years 6 months
	Asst. Prof.	01.11.2007- 18.03.2014	6 years 4 months
Adhiparasakthi Engineering College	Professor	19.03.2014 – 02.05.2019	5 years 2 months
Adhiparasakthi Engineering College	Principal	03.05.2019- Till date	

Publications : Total no. Of publications: 48

Journals : National : 1 International: 36
Conference : National : 6 International : 5

(Entire publications)

1. *N. Balamurugan,* J Raja, **Pitchai, R.**, 2024, '***Graph Modeled Oppositional Whale Optimization for Efficient Cloud Service Provision Using Virtual Network Mapping****'*, Wireless Personal Communications 135(2):1-22
2. Malathi. M and **Raja, J,** (2024), **"Energy Efficient Routing Through A Multilayer Cluster for UWSNs"**, 10th International Conference on Communication and Signal Processing (ICCSP 2024), **ISBN: 979-8-3503-5306-8, pp. 147–152.**
3. Gajalakshmi. P and **Raja. J**, (2024**)," Renal Care: Personalized Alerting System for Renal Cancer Recurrence Prevention via IoT and ML,"**10th International Conference on Communication and Signal Processing (ICCSP 2024), **ISBN: 979-8-3503-5306-8, pp. 433–437.**
4. Ezhilvendan. M and **Raja. J**, (2024), **"A Machine Learning-based Agricultural Recommender System,"** 10th International Conference on Communication and Signal Processing (ICCSP 2024), **ISBN: 979-8-3503-5306-8, pp. 813–817.**
5. Mookhambika. N and Raja. J, (2024), "Power Management Integrated With Energy Harvesting For Sensor Network Using Low Power Multiple Access Protocol and Security Enhancement Using Hybrid Machine Learning Architecture", 10th International Conference on Communication and Signal Processing (ICCSP 2024), ISBN:979-8-3503-5306-8, pp. 902–908.
6. Pitchai. R, Raja. J, Babu. C. M, 2023, 'Removal of SP Noise Using Decision Based Adaptive Double Median Filter for Synthetic Aperture Radar Images' " Wireless Personal Communication" Vol. 131(3), pp. 1475–1493
7. **J Raja, J Rajeswari, S Jayashri,** 2023, 'A secured QR pattern based E health care CAD system for CXR image analyses, "International Journal for Light and Electron Optics" Vol. 273, Page no.170344
8. **Mookhambika. N, Raja. J,** 2023 'Efficient fuzzy based energy-constrained clustering for wireless sensor networks'" Journal of Environmental Protection and Ecology", Vol. 24(4), pp. 1352–1364
9. **Raja, J., Moorthi, K., Rajendran, A.**, 2022, 'De-noising of salt and pepper noise using deep learning-based alpha-guided grey wolf optimization' Vol. 130, Page no. 109649
10. **Raja, J., Moorthi, K., Pitchai, R.**, 2022, 'Removal of High Density Impulse Noise Using Adaptive Pulse Coupled Neural Network (APCNN) with Improved Alpha Guided Gray Wolf

Optimization (IAgGWO) Technique in Transform Domain' "Wireless Personal Communications" Vol. 124(1), pp. 715–726

11. **J Rajeswari, J Raja, S Jayashri,** 2022, 'Gradient contouring and texture modelling based CAD system for improved TB classification' **"**Automated Software Engineering", Volume 29, Pages 1-12
12. **Subalatha, M., Jayashri, S., Raja, J., Sakthidasan @ Sankaran, K.**, 2021, 'Low Complexity Maximum Likelihood FBMC QAM for Improved Performance in Longer Delay Channel' " Wireless Personal Communications", Vol. 117(4), pp. 3051–3066
13. **P Shanmugam, J Raja, R Pitchai,** 2021, ' An automatic recognition of glaucoma in fundus images using deep learning and random forest classifier, "Applied Soft Computing" Volume 109, Pages 107512
14. **J Raja, P Shanmugam, R Pitchai,** 2021, **'**An Automated Early Detection of Glaucoma using Support Vector Machine Based Visual Geometry Group 19 (VGG-19) Convolutional Neural Network, "Wireless Personal Communications" Vol: 118, pp- 523-534
15. **N. Mookhambika, Raja Jayamani,** 2020**, '**A novel energy harvesting with middle-order weighted probability (EHMoWP) for performance improvement in wireless sensor network (WSN), "Journal of Ambient Intelligence and Humanized Computing", Vol 13, pp: 5465–5476
16. **J Raja, M Ramakrishnan,** 2019, 'Confidentiality-preserving based on attribute encryption using auditable access during encrypted records in cloud location', "The Journal of Supercomputing" Vol 76, pp- 6026-6039
17. **J Raja, M Ramakrishnan, 2017, '**An enhanced study on cloud data services using security technologies' **"** International Conference on Intelligent Computing and Control (I2C2)" DOI: 10.1109/I2C2.2017.8321874
18. **J. Raja**, M. Ramakrishnan, 2016, 'A Comprehensive Study on Big Data Security and Integrity Over Cloud Storage' "Indian Journal of Science and Technology" , Vol 9(40), DOI: 10.17485/ijst/2016/v9i40/98622, October 2016
19. **Gunasekaran, K**, Raja, J & Pitchai, R 2019, 'Deep MultimodalBiometric Recognition Using Contourlet Derivative Weighted RankFusion With Human Face, Fingerprint And Iris Images', Automatika:Journal of Control, Measurement, Electronics, Computing and Communications, Automatika, Taylor and Francis, DOI:10.1080/00051144.2019.1565681.
20. **J.Raja, K.Gunasekaran and R. Pitchai** 2018, "Prognostic evaluation of multimodal biometric traits recognition based human face, finger print and iris images using ensembled SVM classifier," Cloud Computing, doi.org/10.1007/s10586-018-2649-2.
21. **P. Supraja, R. Pitchai and J.Raja**, 2018, "Spectrum Prediction in Cognitive Radio with Hybrid Optimized Neural Network", Mobile Networks Application, DOI 10.1007/s11036-017-0909-7.
22. **P. Mangayarkarasi and J. Raja** 2018, "An Efficient IR-HARQ Power Allocation for Relay-Aided Cellular Networks", Journal of Circuits, Systems, and Computers, Vol. 27, No. 12, pp 1850195 -1850116.
23. **K.Moorthi and J.Raja** 2018, "A Comparative Study on FIR Filters for Reconfigurable Applications", International Journal of Information and Communication Sciences, Vol. 3 No. 1, pp. 1-10.
24. **A.Revathi, Paul Rodrigue and J.Raja** 2017, " Securing shared data in -Learning using Three Tier Algorithm Of Compression Combined Hybridized Encryption" , Journal of Computational and Theoretical Nanoscience, Vol.14 No. 10, Oct 2017, pp. 4655- 4663.

25. **R. Pitchai , S. Jayashri & J. Raja** 2016, 'Searchable Encrypted Data File Sharing Method Using Public Cloud Service for Secure Storage in Cloud Computing', Wireless Personal Communication, vol.90, no.2, pp 947-960.
26. **P Mangayarkarasi, J Raja, S Jayashri** 2015. "An efficient energy harvesting scheme to maximize the throughput of the wireless relay network with TSR and PSR protocol", International Journal of Electronics and Communications, Vol. 69 No. 5, pp 841-850.
27. **J Raja, P Mangayarkarasi & K Moorthi** 2015 'VLSI Implementation of 4X4 MIMO SC-FDMA Transceiver For Low Power Applications', International Journal of Applied Engineering Research (IJAER), Vol. 10, no. 5, pp.11835-11852.
28. **J Raja, P Mangayarkarasi & K Moorthi** 2015 'Area Efficient, Low Power, High Performance Cached FFT Processor for MIMO OFDM Application', International Journal of Applied Engineering Research, Vol. 10, no.5, pp.11853-11868.
29. **J.Raja, M.Logeswari & .K.Moorthi** 2015, 'Performance Analysis Of Wireless Co-Operative Network For Decode-Amplify And Forward Relaying With Energy Harvesting Constraint', International Journal Of Engineering Sciences & Research Technology, Vol.4, no.2, pp. 470-476.
30. **J.Raja, R.Anitha & K.Moorthi** 2015,'Buffer Aided Relaying System With Energy Harvesting Nodes', International Journal Of Engineering Sciences & Research Technology, Vol 4, no.2, pp.183-189.
31. **J.Raja, Saranya.SA & Suresh Babu.T.N** 2015, 'Dual AGC Model Implementation of the Inner Hair Cell and Auditory Nerve IC in Neuromorphic VLSI', International Journal of Innovative Research in Science, Engineering and Technology, Vol.4, no.2, pp.734-745.
32. **J Raja & Saranya Sa** 2014,'Implementation of Analog Inner Hair Cell and Auditory Nerve IC in Neuromorphic VLSI', International Journal of Electrical and Electronics Research, Vol. 2, no.4, pp.38-46.
33. **K.Moorthi Dr.J.Raja & B.Ramya** 2014, 'Coarse Grain Reconfigurable Floating Point Unit', International Journal of Innovative Research in Information Security, Vol 1, no.4, pp.1-5.
34. **J Raja & M Logeswari** 2014, 'Maximization of Throughput for Gaussian Relay Channel with Hybrid Relaying: Decode-Amplify and Forward', International Journal of Engineering and Advanced Technology, Vol. 4, no.1,pp.205-208.
35. **J. Raja & R. Anitha** 2014, 'Power Allocation for Link Adaptive Relaying System with Energy Harvesting Nodes', International Journal of Engineering and Advanced Technology, Vol. 4, no.1,pp.200-204.
36. **N V Shimna E Konguvel & J Raja** 2014, 'A Modified Cordic Processor for Specific Angle Rotation', Journal of VLSI and Signal Processing, Vol. 4, no.2, pp.29-37.
37. **Amjadha. A E. Konguvel & J. Raja** 2014, 'Design of Multipath Delay commutator Architecture based FFT Processor for 4th generation systems', International journal of computer Application, Vol. 89, no.12, pp.23-28.
38. **Sivarajan. R, Kumaresan. L & Dr. J. Raja** 2014, '.Error Analysis in Multi carrier Multi user wireless Network with and Without Pre coding', International Journal of mobile and Adhoc Network, Vol. 4, no.1, pp.91-96.
39. **E. Konguvel · J. Raja · & M. Kannan** 2013, 'Low power VLSI Implementation of 2X2 MIMO OFDM Transceiver with ICI SC Scheme', International Journal of computer Application, Vol. 77, no.5, pp.7-15.

40. **Raja Jayamani & Kannan** 2012, 'VLSI Implementation of High Throughput MIMO OFDM Transceiver for 4th Generation Systems', IJEMS, CSIR, Vol.19, pp.307-319.
41. **J. Raja**, 'Video based Real-Time Pedestrian Detection', National Conference on soft computing and advanced communication system, M.P.Nachimuthu M.Jagaanathan Engineering Technology, 10th April 2010.
42. **J. Raja**,',Low cost Embedded based Braille Reader', National Conference on Recent Trends in information and communication Technology, Bannari Amman Institute of Technology, 9th and 10th April 2010.
43. **J. Raja,**'Voice Secure communication (A Computerized Approach)', National conference on communication Technology, KSG College and Technology, 23rd and 24th March 2007.
44. **J.Raja**,'Voice Security in Telephone', National conference on Emerging Trends in Technologies, Kalasalingam University, 23rd March 2007.
45. **J.Raja,**' Achieving path Diversity in IP networks', ETCIT-06, K.S. Rangasamy college of Technology, February 2006.
46. **J.Raja**,'Speech coding Algorithm for Mobile Communication', SA National Level Conference', Dr.Sivanthi Aditanar college of Engineering, 18th and 19th August 2005.
47. **J.Raja,**'Micro controller based Parallel Multi inverter', NCET-2005, Shri Andal Alagar College of Engineering, 10th and 11th March 2005.
48. **J.Raja**,'Modeling, Analysis and implementation of Parallel Multi Inverter with average instantaneous current sharing scheme', ICUE, Ryerson University, Canada, April 2004.

List of Research Scholars who have completed their Ph.D/M.S(By Research)

S. No.	Degree	Reg. No.	Name	Title of Thesis	Viva Date
1.	Ph.D.	1324499127	Revathi A	A NOVEL TECHNIQUE FOR SECURING E-LEARNING CONTENT ON CLOUD USING COMPRESSION COMBINED HYBRIDIZED ENCRYPTION	10.06.2019
2.	Ph.D.	20114022003	Gunasekaran K	PERFORMANCE ANALYSIS OF ENSEMBLED CLASSIFIER METHODS FOR HUMAN MULTIMODAL BIOMETRIC RECOGNITION	11.10.2019
3.	Ph.D.	1613399190	Moorthi K	REMOVAL OF SALT AND PEPPER NOISE FOR SYNTHETIC APERTURE RADAR IMAGES USING SOFT COMPUTING TECHNIQUES	03.02.2022
4.	Ph.D.	18147991165	Balamurugan N	BIO-INSPIRED OPTIMIZATION	09.03.2022

				TECHNIQUES FOR VIRTUAL NETWORK MAPPING IN A CLOUD ENVIRONMENT	
5.	Ph.D.	1614499474	Shanmugam P	RECOGNITION OF GLAUCOMA IN FUNDUS IMAGES USING DEEP LEARNING TECHNIQUES AND IMPROVE OPTIC DISC AND OPTIC CUP SEGMENTATION	12.07.2022
6.	Ph.D.	17244997461	Rajeswari J	DETECTION TB USING IMPROVED GRADIENT DRIVEN TEXTURES AND SECURED QR PATTERN GENERATION FOR CHEST XRAY IMAGES	25.03.2024

List of Ph. D Research scholar (Currently doing)

S. No	Reg. No.	Name	Degree	Faculty	Reg. Year & Session	Supervisor/ Joint Supervisor	Status
1.	1614499247	Parthiban V	Ph.D.	Ice	JAN 2016	Supervisor	Confirmation Completed
2.	1624499221	Mookhambika N	Ph.D.	Ice	JAN 2016	Supervisor	Thesis submitted
3.	16253997143	Aruna Rajendran	Ph.D.	Elec	JUL 2016	Supervisor	Confirmation Completed
4.	23134997173	Sekar G	Ph.D.	Ice	JUL 2023	Supervisor	Course Work Completed
5.	23134997257	Ezhilvendan M	Ph.D.	Ice	JUL 2023	Supervisor	Course Work Completed
6.	23224997417	Gajalakshmi P	Ph.D.	Ice	JUL 2023	Supervisor	Course Work Completed
7.	23244997365	Uma Mageswari T	Ph.D.	Ice	JUL 2023	Supervisor	Course Work Completed
8.	23247991129	Suganya N	Ph.D.	Science	JAN 2023	Supervisor	Course Work Completed

Participation in Workshops/ Seminars/ Short term courses :

S.No.	Title of the workshop/ FDP/ seminar	Organizer	Period	Month & year
1.	Anna University Sponsored FDTP on VLSI Design	Adhiparasakthi Engineering College	5nd - 12th	December 2014

2.	FDP on Information Theory and Coding	Madras Institute of Technology	12th to 18th	June 2013
3.	FDP on Mobile & Pervasive Computing	Madras Institute of Technology	3rd to 9th	June 2013
4.	FDP on FSIT – Business Dynamics	Adhiparasakthi Engg. College	16th and 17th	July 2013
5.	Image processing frame Works using FPGA	Anna University	14th and 15th	Oct 2012
6.	Analog IC Design	Anna University	14th and 15th September 2012	September 2012
7.	Communication Dictionary	Prathyusha Institute of Technology and Management	30th May to 12th June 2011	2011
8.	VLSI for signal processing	Anna University	14th and 15th	March 2011
9.	ANSOFT High Frequency Applications	Anna University	26th	Feb 2010
10.	Design and Testing of VLSI circuits	Adhiparasakthi Engg. College	18th & 19th Feb 2010	Feb 2010
11.	Exploring MATLAB and its tools	Adhiparasakthi Engg. College	Aug 6th to 10th	Aug 2009
12.	Exploring MATLAB and its tools	Adhiparasakthi Engg. College	July 13th to 16th	July 2009
13.	Embedded systems using AVR tools	Accent e technology private limited	30th july 2009	July 2009
14.	Emerging trends in wireless embedded systems	Adhiparasakthi Engg. College	4th April 2009	April 2009
15.	Communication technology and Evolution towards intelligent Network Architecture	SSN college of Engineering	May 19th to 24th 2008	May 2008
16.	Recent trends in VLSI and embedded systems	Adhiparasakthi Engg. College	27th & 28th july	July 2007

Professional Memberships : ISTE – lifetime membership

IAENG- lifetime membership

IEEE- Annual Membership

Awards/Recognitions :

- Best paper Award for the paper "Low cost Embedded based Braille Reader" organized by Bannari Amman Institute of Technology.
- Reviewer for the Springer Journal(Circuits systems and signal processing)
- Reviewer for the Indian Journal of Engineering and Technology
- Reviewer for the Malaysian Journal of computer Science
- Received grant for Rs.25,000/- under FDTP from Anna University in the year 2014 – 15
- Applied a grant of Rs.35 Lakhs in DST under SERB-Extra Mural scheme in VLSI area and the proposal is under the evaluation.
- Certificate of appreciation for guiding the project titled "Low Power and High Performance in Reversible Sequential Circuits" at the 13th ISTE Tamilnadu and Puducherry Section Annual Convention for Engineering Students 2014 held during 23rd – 24th of Jan 2014.
- Certificate of appreciation for guiding the project titled "Automatic Power Management and Control using GSM Network" at the 13th ISTE Tamilnadu and Puducherry Section Annual Convention for Engineering Students 2014 held during 23rd – 24th of Jan 2014.
- Certificate of appreciation for guiding the project titled "Automatic Power Management and Control using GSM Network" at the National Level Technical Symposium organized by Adhiyaman College of Engineering on 17th and 18th March 2014.
- Certificate of appreciation for guiding the project titled "Low Power and High Performance in Reversible Sequential Circuits" at the National Level Technical Symposium organized by Adhiyaman College of Engineering on 17th and 18th March 2014.

Responsible positions held in the Department and College :

- Workshop Convener
- News Letter-Convener
- Result Coordinator
- International Conference Coordinator
- Chairman for paper valuation in Anna University exams Zone IV
- Recognized as Research Supervisor in Anna University. Currently Nine scholars are pursuing Ph.d under my guidance.

- Doctoral Committee member for many research scholars pursuing research in various universities.

Other Relevant Information :

- Published a book **"Digital Signal Processing "** for V Semester ECE students under Anna University Syllabus Regulation 2017.
- Published a book **"Digital Principle and System Design"** for III Semester ECE students under Anna University Syllabus Regulation 2017.
- Published a book **"Signal and Systems"** for III Semester ECE students under Anna University Syllabus Regulation 2017.
- Published a book **"Electronics Circuits"** for IV Semester ECE students under Anna University Syllabus Regulation 2013.
- Published a book **"Electronic Devices"** for II Semester ECE students under Anna University Syllabus Regulation 2013.
- Delivered a guest lecture on Electronics circuits for the students of Karpaga vinayaga college of Engineering and Technology on 21/05/08
- Delivered a guest lecture on Design of Digital Filters for the students of Karpaga vinayaga college of Engineering and Technology.
- Delivered a guest lecture on Digital filter design using MATLAB for the students of Karpaga vinayaga college of Engineering and Technology.
- Delivered a guest lecture on Digital Signal Processing for the students of Karpaga vinayaga college of Engineering and Technology on
- Delivered a guest lecture on Verilog Programming Concepts for the students of Anna University on 29/06/12
- Delivered a guest lecture on Analog VLSI Design for the students of Anna University on 25/09/12
- Delivered a guest lecture on Digital VLSI Design using Altera Mega core function for the students of Anna University on 03/10/12.
- Delivered a guest lecture in the topic IC Voltage Regulators on EC 2254 Linear Integrated Circuits during FDP organized by Karpaga vinayaga college of Engineering and Technology on 07/12/13

- Delivered a guest lecture on DSP for the students of Karpaga vinayaga college of Engineering and Technology on 21/03/14.

- Acted as a Session Judge for National conference on Futuristic Trends in electronics Engineering organised by Tirvalluvar college of Engineering on 1/03/14.
- Acted as a Session Judge for National conference on Recent Trends in Power Control Networking embedded and Communication Engineering organised by Karpaga vinayaga college of Engineering and Technology on 26/03/14.
- Certificate of appreciation for guiding the project titled "Low Power and High Performance in Reversible Sequential Circuits" at the 13th ISTE Tamilnadu and Puducherry Section Annual Convention for Engineering Students 2014 held during 23rd – 24th of Jan 2014.
- Certificate of appreciation for guiding the project titled "Automatic Power Management and Control using GSM Network" at the 13th ISTE Tamilnadu and Puducherry Section Annual Convention for Engineering Students 2014 held during 23rd – 24th of Jan 2014.
- Certificate of appreciation for guiding the project titled "Automatic Power Management and Control using GSM Network" at the National Level Technical Symposium organized by Adhiyaman College of Engineering on 17th and 18th March 2014.
- Certificate of appreciation for guiding the project titled "Low Power and High Performance in Reversible Sequential Circuits" at the National Level Technical Symposium organized by Adhiyaman College of Engineering on 17th and 18th March 2014.
- Delivered a guest lecture on DSP for the students of Karpaga vinayaga college of Engineering and Technology on 12/07/14.
- Delivered a guest lecture on VLSI Design for the Facility members organised by Karpaga vinayaga college of Engineering and Technology on 13/12/14.
- Handled Lab sessions on ModelSim and Cadence in Anna University sponsored FDTP programme on VLSI Design organized by Adhiparasakthi Engineering College on 8/12/14 and 4/12/14.

Area of academic / Research interest :

1. Wireless Networks
2. Wireless Communication
3. Signal Processing
4. VLSI Design

(J.Raja)