



## **Dr. A. POONGUZHALI**

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Gottigere, Bannerghatta Road, Bangalore 560 083, Karnataka.

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An accomplished Doctorate in Engineering with more than **Twenty eight Years** of experience as an academician, motivated to continuously innovate, hone my skills, and leverage my technical and functional expertise contributing to the organization and personal growth. Possess good skills in analog and digital design techniques.

### **Education**

- Ph.d from Pondicherry University, Pondicherry , October 2020.
- ME (Communication Systems), College of Engineering, Guindy, Anna University, Chennai, Tamil Nadu, 2006.
- BE (Electronics & Communication Engineering), Bharathidasan University, Thanjavur, Tamil Nadu, 1994.

### **Work Experience**

January 2010 – Till date	Sri Sairam College of Engineering (SSCE), Anekal, Bangalore.
September 2006 – May 2009	Assistant Professor, Adhiparasakthi Engineering College (APEC), Melmaruvathur, Tamil Nadu
August 1996 – August 2006	Lecturer, APEC, Melmaruvathur, Tamil Nadu
June 1995 – July 1996	Lecturer, Thai Moogambigai Polytechnic, Chennai, Tamil Nadu
July 1994 – June 1995	Production Engineer, Preedham Electronics, Chennai, Tamil Nadu

### **Courses Handled**

- Communication Switching System
- Digital Signal Processing
- Microprocessor & its Applications
- Advanced Microprocessor
- Control System
- Digital Communication
- Analog & Digital Instrumentation
- DSP Algorithms and Architecture
- Analog and Mixed Mode VLSI
- Wireless Communication
- Signals and systems
- Electronic Circuits I & II

- Linear Integrated Circuits
- Circuit Analysis

- Electron Devices & its Circuit
- IoT and Wireless Sensor Networks

## **Research Publications**

### *Conferences*

1. Poonguzhali, A. "Secure Online Voting System through IRIS Recognition", Third National Level Conference on Emerging Technologies, CSI College of Engineering, The Nilgiris, March 2009.
2. Poonguzhali, A. "Cross layer design of Ad hoc networks with Qos support", Application of Emerging Technologies, Adhiyamaan College of Engineering, March 2006.
3. Poonguzhali, A. "Interplay between Optimal Selection Scheme, Selection Criterion and Discrete Rate Adaptation in Opportunistic wireless system", Networks, Electronic System, Signals and Technologies NCNEST-2010, Adhiparasakthi Engineering College, April 2010.
4. Poonguzhali, A. "Multicast Scheduling Algorithm Supporting Spatial Mini-slot Reuse", International Conference on Communication and Signal Processing, Adhiparasakthi Engineering College, April 2012.
5. Poonguzhali, A. "Early Detection of Diabetic Retinopathy by CRA", International Conference on Advanced Computing and Information Technology, AMC College of Engineering, March 2013.
6. Poonguzhali, A. "Eye Movement Based Electronic Wheel Chair for physically challenged persons", National Conference on Technological Advances in Electronics System Design, Vemanna Institute of Technology, April 2014.
7. Poonguzhali, A. "Intelligent Controller to monitor and control physical parameters in green house", All India Conference on Emerging Engineers and building up technical innovation in modern, Adhiyamaan College of Engineering, September 2014.
8. Poonguzhali, A. "Detection of Tumor In Brain Images using Segmented Morphological Approach", National Conference on Innovation in Communication and Computation, KSIT, Bangalore, October 2014. Best paper of the National Conference.
9. Poonguzhali, A. "Design and Construction of Wireless power transfer system using magnetic resonance coupling", 1<sup>st</sup> IE(I) State centre students and Technicians Convnetion and All India Seminar on Innovation, Technology and knowledge Economy, Adhiyamaan College of Engineering, March 2015.
10. "A review on relay selection Techniques in Co-operative communication", National Conference on Soft Computing and Advanced Communication, M.P.N.M.J engineering college, Tamil Nadu March 2015.
11. „Enhancing the semantic data extraction of a video using Ontology“, 4<sup>th</sup> IEEE sponsored International Conference on Computation of Power, Energy, Information and Communication organized by Adhiparasakthi Engineering College, April 2015.
12. „Video Surveillance in public transport area using Semantic approach“, National Conference on Computer Applications and Communication systems 2016, BTLIT February 2016.
13. Published a paper titled "Performance Evaluation of IEEE 802.11e MAC layer using cell processor" in International Journal of Scientific and Technology Research Volume 3, Issue 1, January 2014 – ISSN 2277-8616.
14. Published a paper titled "Re-engineering the Engineering", in Asia Pacific Journal of Research ,Oct 2013, volume III, Issue-x, ISSN-2320-5504.
15. Published a paper titled "Grape Farmland Monitoring using WSN" in International Journal of Engineering Research in Electronic and Communication Engineering, Volume 3, Issue 6, June 2016 – ISSN(online) 2394-6849.

16. Published a paper titled “Secure Image Transmission Technique using Cryptography and Steganography” in International Journal of Engineering Research in Electronic and Communication Engineering, Volume 4, Issue 5, May 2017 – ISSN(online) 2394-6849.
17. Published a paper titled “Controlling and monitoring of Power supply from substation using GSM Modem” in International Journal of Innovative Research Science, Engineering and Technology, Special Issue , May 2017 – ISSN(online) 2319-8753, ISSN(Print):2347-6710.
18. Published a paper titled “ Video Surveillance in Public Transport Areas using Semantic Based Approach” in JETIR February 2019, Volume 6, Issue 2.
19. A.Poonguzhali, P.Dhavachelvan, “Hybrid ABC-NM method for enhancing the lifetime of network (HABC-NM) in coverage connected node placement problem with critical target based WSN”, International Journal of Pure and Applied Mathematics, SCOPUS, vol.19, no.14, pp.273-288, 2018.
20. A. Poonguzhali, .Pradeep, R.Ramachandiran, “Multi-Objective ABC-NM (Artificial Bee Colony – Nelder Mead ) method for solving coverage connected node placement problem with and without critical target nodes in target based WSN”, International Journal of Pure and Applied Mathematics, SCOPUS, vol.19, no.14, pp.289-298, 2018.
21. A. Poonguzhali, P.Bhavani, R.Ramachandiran, “Enhancing the lifetime of network using Hybrid Artificial Bee Colony – Nelder Mead (HABC-NM) in coverage connected node placement problem of target based WSN”, International Journal of Engineering, Applied and Management Sciences Paradigms, UGC, vol 54,Issue 3, June 2019, ISSN 2320-6608.
22. A. Poonguzhali, P. Dhavachelvan, “Coverage Connectivity in Node Placement”, International Journal of Engineering, Applied and Management Sciences Paradigms, UGC, vol 54,Issue 3, June 2019, ISSN 2320-6608.
23. A.Poonguzhali,GPremalatha,AAbinaya,RThiagarajan,RKrishnamoorthy,SArun,”Authorization Method of Control in Android Application Using Adminio with Context-BasedAccessDevices,20228thInternationalConferenceonSmartStructuresandSystems,doi:10.1109/ICSSS54381.2022.9782204,IEEE.
24. Dr.J.Parthasarathy , A Poonguzhali , Dr.N.Bharathiraja, Dr. Kailash Kumar4, Dr.R.Anand , Dr.R.Thiagarajan , NeuroQuantology | August 2022 | Volume 20 | Issue 10 | Page 1217-1238| doi: 10.14704/nq.2022.20.10.NQ55094 / NOVEL ENHANCED INTELLIGENT SYSTEM FOR OPTIMAL SELECTION OF VM IN CLOUD USING APSO (ANALOGOUS PARTICLE SWARM OPTIMIZATION)
25. Dr.A Poonguzhali,Intelligent Information Systems:A Review on Technology and Its Future Trends, Artificial intelligence concepts, methodologies and Applications, 2022, Vol.1,24-34,Academic Guru Publishing House.
26. S Tamil selvan, R Rajkumar, P Chandrasekar, A Poonguzhali, Karthick Balasubramaniam,/ Comparison of Cardiac Stroke Prediction and Classification Using Machine Learning Algorithms /Translating Healthcare Through Intelligent Computational Methods/EAI/ Springer Innovations in Communication and Computing/ Page 135-154/June 2023/https://doi.org/10.1007/978-3-031-27700-9\_10 .
27. S Angel Latha Mary, K Ulagapriya, A Poonguzhali, R Menaha, Beulah David, TR Priyadharshini, Map Building of Indoor Environment with Sensors using Neural Network/2023 Winter Summit on Smart Computing and Networks (WiSSCoN)/Page 1-6/doi: 10.1109/WiSSCoN56857.2023.10133850

### **Thesis**

1. Poonguzhali, A. "*Cross Layer Design of Ad hoc Networks with QoS Support*", Masters Thesis, College of Engineering, Anna University, Chennai, 2006.
2. Poonguzhali, A. "*Microprocessor Based Position Control System*", Bachelors Thesis, Periyar Maniammai College of Engineering & Technology for Women, Thanjavur, 1994.

### **Guest Lectures Delivered**

- Delivered a guest lecture on “Microprocessor and Microcontroller”, for Electrical and Electronics Students of Karpaga Vinayaga College of Engineering and Technology (KVCET), Tamil Nadu.
- Delivered a guest lecture on “Microprocessor and Its Applications” for Information Technology Students of KVCET, Tamil Nadu.
- Delivered a guest lecture on “Amplifiers, Oscillators and Power Supplies”, for Computer Science Engineering Students of SSCE, Anekal.
- Delivered a guest lecture on “Microprocessor and Its Applications” for Computer Science Engineering Students of SSCE, Anekal.

### **Workshops/Training Programs Attended**

- Attended a workshop on “Software Testing”, APEC, September 2007.
- Attended a workshop on “Recent trends in VLSI and Embedded Systems”, APEC, July 2007.
- Attended a workshop on “Data warehousing and Data Mining, APEC”, March 2007
- Attended a workshop on “Applications of VLSI Technology”, APEC, March 2007
- Attended a workshop on “Image Processing and Experts System”, KVCET, August 18, 2008
- Attended a workshop on “Mobile Computing”, KVCET, August 22, 2008
- Attended a workshop on “Mobile Communication”, KVCET, December 17, 2008 to December 19, 2008
- Attended a workshop on “Android Application Development”, SSEC, September 21 to 22, 2012.
- Attended a workshop on “Android Application Development-Sensors”, SSEC, September 25 to 26<sup>th</sup> 2013.
- Attended a Faculty Development Programme on “Visual System Programming”, SSEC, September 23 to October 7<sup>th</sup>, 2013.
- Attended a Faculty Development Programme on “Faculty Skill Enrichment Programme”, SSEC, January 20 to 24<sup>th</sup>, 2014.
- Attended a Faculty Development Programme on “Future Challenges for the Techno Professional Faculty”, SSCE, January 18<sup>th</sup> to 19<sup>th</sup>, 2016.
- Attended a Faculty Development Programme on “Innovative Teaching Pedagogy and Student Management”, SSCE, July 14, 15 to July 18<sup>th</sup>, 2016.
- Attended a Faculty Development Programme on “IPR, Stress Management and Effective Counselling Techniques”, SSCE, January 1 to 5<sup>th</sup>, 2015.
- Attended a workshop on “Research Methodology”, BITS, Pilani-Hyderabad, April 3, 4<sup>th</sup>, 2015.
- Attended a workshop on “Research Methodology”, BITS, Pilani-Hyderabad, April 11, 12<sup>th</sup>, 2016.
- Attended the training program conducted by ISTE Train the trainer program for IoT foundation course under phase 1 training.

### **Achievements**

- Under my leadership, SUN TV AC Neilson Group ranked ECE department as **first** in the state during **2004**.
- Under my leadership, I have gone through two accreditations, one for Electronics and Communication Department in the year 2004 and one for Information Technology Department in the year 2008. Both of them got accredited.
- Conducted two day workshop on “Software Testing” and one day workshop on “Data Warehousing and Mining”.
- Has acted as prescreening evaluator and Final Judge for Toycathon 2021.

- Has acted as prescreening evaluator in Smart India Hackathon 2022.

### **Academic and Administrative Responsibilities Undertaken**

- HOD (I/C) of Electronics and Communication Department from May 2000 to July 2004.
- HOD (I/C) of Electronics and Communication Department from November 2006 to January 2007.
- HOD (I/C) of Information Technology Department from March 2007 to May 2009.
- Session Judge during paper presentation for “MINSAR 2K8” organized by Electrical and Electronics Department, Adhiparasakthi Engineering College, Melmaruvathur, Tamil Nadu.
- Session Judge during paper presentation for “Cybertronics 2K8” organized by Electronics and Communication Department, Thiruvalluvar College of Engineering and Technology College, Vandavasi, Tamil Nadu.
- Session Judge during paper presentation for “IMPULSE 2K8” organized by Electronics and Communication Department, Adhiparasakthi Engineering College, Melmaruvathur, Tamil Nadu
- Session Judge during paper presentation for “CHANNEL 2K9” organized by Electronics and Communication Department, Adhiparasakthi Engineering College, Melmaruvathur, Tamil Nadu
- Session Judge for “Junk Arts Event” organized by MBA Department for celebrating Women’s Day, Adhiparasakthi Engineering College, Melmaruvathur, Tamil Nadu
- Session Judge during paper presentation for “ADVAYA” organized by Computer Science Engineering Department, Shirdi Sai Engineering College, Anekal.
- Session Judge during paper presentation for “MECH\_TECH” organized by Mechanical Engineering Department, Shirdi Sai Engineering College, Anekal.
- Session Judge during paper presentation for “ISTE Karnataka State Students Convention” organized by ISTE, Shirdi Sai Engineering College, Anekal.
- Session Judge during paper presentation for “International Conference” organized by Computer Science Engineering Department, Sri Sairam Engineering College, Anekal.
- Internal and External examiner for Madras University, Anna University and Pondicherry University, Christ University.
- Chief examiner during evaluation and as Anna University Representative for Theory exams conducted by Anna University
- Attended Madras University, Anna University and Pondicherry University evaluations
- Have set question papers at UG level and PG level for Chandrasekara University, Kanchipuram and Ramakrishna University, Coimbatore, Adhiyamaan College of Engineering, Hosur, Dayananda Sagar College of Engineering.
- Member of ISTE, IEL, UACEE.
- Acted as Reviewer of IEEE 14<sup>th</sup> International Conference on Computing, Communication and Networking Technologies, IIT-Delhi, Delhi India.

### **Personal Information**

Date of Birth : September 15, 1972  
Languages : English, Hindi and Tamil  
Marital Status : Married  
Husband’s Name : K. Madhavan

### **References**

- (1) **Dr. S. Ramasamy**  
Dean, Adhiparasakthi Engineering College, Melmaruvathur, Tamil Nadu
- (2) **Dr. M. Meenakshi**  
Assistant Professor, Department of Electronics & Communication Engineering

Anna University, Chennai, Tamil Nadu.

I here by declare that the above mentioned information is correct to the best of my knowledge and belief.

**(A. POONGUZHALI)**