Profile of Dr.R.Muthuselvi, Professor-IT

Dr.R.Muthuselvi is working as Professor in Department of Information Technology in Kamaraj College of Engineering and Technology, Virudhunagar, Tamilnadu. She completed her UG degree in Electrical and Electronics Engineering through Thiagarajar College of Engineering in Madurai in 1989. She completed her PG degree in Computer Science and Engineering through MEPCO SCHLENK College of Engineering, Sivakasi in the year 2001. She completed her Doctoral degree in Information and Communication Engineering through Anna University, Chennai in 2012.

Her area of interest includes High Performance Computing and Internet of Things. She is currently guiding 7 research scholars under Anna University, Chennai.

She has 32 years of experience in teaching profession. She is a subject expert in Computer Architecture, Multi core architecture and Programming, Operating Systems, Distributed Systems and Parallel Algorithms.

She has published more than 30 papers in International Journals and Conferences. She has participated in more than 70 FDPs and Workshops. She has organized more than 20 events. She is the life member in the professional societies, ISTE, IE and AMIEE.

The team guided by her got selected to. receive ₹1,00,000 in Niral Thiruvizha under Naan Mudhalvan scheme in 2024. She also guided the team to win third prize ₹1,00,000 cash award winner in Unisys Innovation Progam year 13 during 2022. She was awarded as Topper 5% in the NPTEL online course Computer Architecture in 2017. She received Best Project Supervisor for the guidance of Final year Project during 2022. She was also awarded as Active Researcher in 2023 in Kamaraj College of Engineering and Technology.

Publications in Journals

- Published a paper titled "A Comprehensive Survey of RSSI- and Routing Pattern–Based Detection Techniques for Sinkhole Attacks in Wireless Sensor Networks" in International Journal of Advanced Research in Management, Architecture, Technology and Engineering (IJARMATE), Vol. 11, Issue 12, pp – 11-15, December 2025, ISSN (ONLINE): 2454-9762

- Published a paper titled "From LMS to ITS: Leveraging Deep Learning and Analytics for Student-Centered Learning" in Journal of Management Science and Humanities, Volume 12, No 2, pp 354-357,Dec 2025, ISSN:2395-0625

- Published a paper titled "UTO-LAB model: USRP based touchless lung anomaly detection model with optimized machine learning classifier" in Biomedical Signal Processing and Control (SCI Journal) , Volume 99, January 2025, 106823.

- Published a paper titled ""College Query Resolving Chatbot ", in Journal of Technology, ISSN 1012 – 3407, Volume 12, Issue 3, March 2024

- Published a paper titled ""Phishing web site detection through machine learning in a chrome extension" in High Technology Letters, ISSN 1006 – 6748, Volume 30, Issue 3, pp – 52 -59 March 2024

- Published a paper titled "Play to earn game" in TANZ Journal, Vol 19, Issue 03, pp-52 -79 March 2024

- Published a paper titled ""Cloud-based Detection of Malware and Software Privacy Threats in Internet of Things using Deep Learning Approach", in International Journal of Electronics and Communication Engineering, Volume 10, Issue 04, April 2023 by SSRG

- Published a paper titled "Leaf Disease Detection and Automatic Pesticide Suggestion Using Deep Learning " in Journal of Machines and Computing Volume 02, Issue 02, April 2022 pp : 074-080 DOI   10.53759/7669/jmc202202010

- Published a paper titled "Smart health care monitoring for Patients in hospital", SSRG International Journal of Computer Science and Engineering,   ISSN : 2348 –8387 ,SSRG-IJCSE - ICRTECITA-Part-2, pp- 92-96,2017

- Published a paper titled "Asset Tracking and Management for Library Using QR-code", SSRG International Journal of Computer Science and Engineering,ISSN : 2348 – 8387 ,SSRG-IJCSE - ICRTECITA-Part-2, pp- 101- 105,2017

- Published a paper titled "Security challenges in internet of things: a survey" Discovery Engineering An International Journal, ISSN 2320 – 6675 EISSN 2320 –6853, Vol 4,issue 11,pp -26-35,2016

- Published a paper titled "Student Attendance System Using RFID Technology", Discovery Engineering An International Journal, ISSN 2320 – 6675 EISSN 2320 –6853, Vol 4,issue 11,pp -55-63,2016

- Published a paper titled "Secret Sharing of IoT Healthcare DataUsing cryptographic algorithm", International Journal of Engineering Research,
 Vol 5,Special Issue 4,pp 790 -991,2016

- Published a paper titled "Asset tracking and management system for libraray using active radio Frequency(RFID)",Biomedical Research, ISSN 0970 - 938X ,Special Issue,pp-S128-S133,2016

- Published a paper titled "Parallelization of Maze generation and solving in multicore using OpenMP",International Journal of Innovative Research in Science, Engineering and Technology, ISSN (Online) : 2319 – 8753,ISSN (Print) : 2347 – 6710,VOl 5,Special Issue 11,pp7-12,2016

- Published a paper entitled, " Parallelization of Bayesian Estimation in Share Price Forecasting Using OpenMP", International Journal of Applied Engineering Research, ISSN 0973-4562,Vol.10 ,No 43,pp- 30388-30393,2015

- Published a paper entitled, "An Efficient Parallelized Generation of Affine Points in Elliptic Curve Cryptography on Multicore Systems", International Journal of Applied Engineering Research, ISSN 0973-4562,Vol.10 ,No 49,pp- 203-208,2015

- Published a paper entitled, "Wireless Sensor Network Applications for Detection and leakage control of gas by using X-bee with Arduino", International Journal of Applied Engineering Research, ISSN 0973-4562,Vol.10 ,No 31,pp- 23364-23367,2015

- Published a paper entitled. "Multi-objective optimization of multimedia packet scheduling for Ad hoc networks through hybridized genetic algorithm", International Journal of Multimedia Applications, IJMA, Vol.3, No. 3, pp.98 - 107, 2011.

- Published a paper entitled, "Optimization of disk scheduling to reduce completion time and missed tasks using multi-objective genetic algorithm", International Journal of Information Technology Convergence and Services, IJITCS, Vol.1, No.4, pp.69 – 79, 2011.

<u>International Conferences</u>

- Presented a paper titled "A Comprehensive Study of Machine Learning Techniques in Healthcare Systems for Intelligent Data Processing, Clinical Decision Support, and Scalable Patient Management" in IEEE Sponsored International Conference On Sustainable Computing and Optimized Practices for Excellence during 18 to 20 December 2025 organized by Thiagarajar College of Engineering, Madurai

- Presented a paper titled "Emotion-responsive learning Enhancing Autism Education through adaptive Technology" in International Conference on Advances in Artificial Intelligence and Computer Science ICAAICS on Nov 10th 2025 organized by ieeeforum.

- Presented a paper titled "Development of Ride-sharing Booking System" in International Conference on Advances in AI and Computer Science (ICAAICS) on 31st Oct 2025 organized by ieeeforum.

- Presented a paper titled "Emerging digital education: A study on Intelligent Tutor System (ITS) in International Conference on Emerging Trends in Computer Science and Intelligent Systems (ETCSIS 2025) on 11th and 12th October 2025 organized by AMIEE Association

- Presented a paper titled "From LMS of ITS: Leveraging Deep Learning and Analytics for student centered Learning" in International Conference on Creating Future through Generative Al organized by Department of Computer Application, Nadar Saraswathi College of Arts & Science, Theni, 29th & 30th September, 2025

- Presented a paper titled "Integrating Convolutional Neural Networks and IoT for Predicting Asthma Risks: A Mobile Health Solution for Real-Time Environmental Monitoring and Personalized Patient Management" in Sixteenth International Conference on Computing, Communication and Networking Technologies (ICCCNT 2025), organized by IIT Indore, July 6th to 11th, 2025 and sponsored by IEEE Electronics Packaging Society and the All India Council for Technical Education (AICTE)

- Presented a paper titled "Enhanced detection and adaptive learning for Autism" in International Conference on Innovations in Materials Science, Technology, Engineering and Management for Sustainable development (IMSTEM) – 2025 jointly organized by Department of Computer Science, St.Joseph's College of Engineering, OMR, Chennai and RSB Research Hub, Coimbatore on 30th and 31st March 2025.

- Presented a paper titled "Development of educational tool for Autistic children using transfer learning" in 2nd International Conference on Futuristic Trends in Science, Engineering and Management (ICFTSEM II -2025 organized by St. Xavier's College of Management & Technology (SXCMT), Patna, India & Global Conference Hub, Coimbatore during 27th and 28th Feb 2025.

- Presented a paper titled "Improving Melanoma Detection Efficiency A Hybrid Approach Using Resnet and Densenet " and received Best Paper Presentation Award in 2nd International Conference on Futuristic Trends in Science, Engineering and Management (ICFTSEM II -2025 jointly organized by Department of Business Administration, St. Xavier's College of Management & Technology (SXCMT), Patna, India & Global Conference Hub, Coimbatore, Tamil Nadu, India conducted on 27th and 28th Feb 2025.

- Presented a paper titled "Catcher's Dilemma: Fruit Vs Bird using A" has been presented in 8th International Conference on Innovation in Computing and Technology (ICICT 24) conducted by Velammal Institute of Technology, Chennai on March 27th 2024.

- Presented A paper has been presented titled "ES Bot: Enhancing and learning through conversational AI in Data Structure Education" in 8th International Conference on Engineering Technology and Science (ICETS 24) conducted by Muthayammal College of Engineering, Namakkal on March 20th 2024.

- Published and presented a paper titled "Leaf Disease detection " in 4th in International Conference on Artificial Intelligence, 5G Communications and Network Technologies (ICA5NT 2024) organized by the Department of Electronics and Communication Engineering & Department of Information Technology, Velammal Institute of Technology, Chennai held on 21 & 22, March 2024.

- Published and presented a paper titled "Play to earn game " in 4th in International Conference on Artificial Intelligence, 5G Communications and Network Technologies (ICA5NT 2024) organized by the Department of Electronics and Communication Engineering & Department of Information Technology, Velammal Institute of Technology, Chennai held on 21 & 22, March 2024.

- Published and presented a paper titled "WEB BASED CAREER GUIDANCE USING JAVASCRIPT " in 4th in International Conference on Artificial Intelligence, 5G Communications and Network Technologies (ICA5NT 2024) organized by the Department of Electronics and Communication Engineering & Department of Information Technology, Velammal Institute of Technology, Chennai held on 21 & 22, March 2024.

- Published a paper titled "Placement Assistant Chatbot" in 4th International Conference on Multidisciplinary Innovation in Academic Research (ICMIAR- 2023) conducted on 17th and 18th March, 2023 by Institute For Engineering Research and Publication (IFERP)

- Published a paper titled "Drowsy Eye Detection System" in International Conference in Recent Trends in Computer Communication and Business Management ICRTCCB 2023 conducted by Sethu Institute of Technology, Madurai on 10th March, 2023

- Published a paper titled "Home automation & Remote Monitoring using IOT and Web" in Virtual Conference on Smart Computing & Advanced Communication (SCAC'21) conducted by PSNA College of Engineering & Technology March 2021

- Published a paper titled "Product Based Recommendation System" in International Conference on Contemporary Engineering & Technology 21 Prince Venkateshwara Padamavathy Engg College Prince Dr.K.Vasudevan College of Engg & Tech conducted on 10th & 11th April 2021

- Published a paper titled "Remote monitoring of rural children using IOT", International Conference on Contemporary Engineering and Technology ICCET 2019 9th & 10th March 2019 conducted by Prince Shri Venkateshwara Padmavathy Engineering College, Chennai

- Published a paper titled "Exploring Recurrent Neural Networks For Signature Verification in Bank Application" International Conference on Information Sciences and renewable energy sources, ICISRES-2K19 , 7th & 8th March 2019 conducted by Selvam College of Technology, Namakkal

- Published a paper titled "Development of Android application for food donation" in Proceedings of the International conference on Engineering and Advancement in Technology 2018 22nd & 23rd March 2018 conducted by Sri Krishna College of Technology, Coimbatore

- Published a paper titled " Mislaid carriage tracking in Load cell" in 2nd International conference on Recent Trends in Engineering, Computers, Information Technology and Applications ICRTECITA-2018 23rd March 2018 conducted by PSNA College of Engg & Tech, Dindigul

- Published a paper titled "Smart Healthcare monitoring for patients in Hospital" International Conference on Recent Trends in Engineering, Computers, Information Technology and Applications (ICRTECITA-2017), 22nd March 2017 conducted by PSNA College of Engg & Tech, Dindigul

- Published a paper titled "Asset Tracking and Management for Library using QR-Code" International Conference on Recent Trends in Engineering, Computers, Information Technology and Applications (ICRTECITA-2017), 22nd March 2017 conducted by PSNA College of Engg & Tech, Dindigul

- Published a paper titled "Parallelization of Graph Labeling Problem in Multicore using OpenMP" International Conference on Trends in Electronics and Informatics ICEI 2017 May 11th and 12th 2017 conducted by SCAD Engineering College, Thirunelveli

- Published a paper "Parallel Processing of IoT Health care Applications", 10th International Conference on Intelligent Systems and Control (ISCO 2016)", 7th and 8th Jan 2016 conducted by Karpagam College of Engineering, Coimbatore

- Published a paper "Published a paper "Parallelization of maze generation and solving in multicore Using OpenMP International Conference on Innovations in Engineering and

Technology, ICIET 16, 6th and 7th April 2016 conducted by KLN College of Engineering,Madurai

- Presented a paper titled "Security Challenges in Internet of Things: A Survey" 2nd International Conference on Electrical, Electronics, Instrumentation and Computer Communication, pp 494-500, conducted by Karpagam College of Engineering, Coimbatore, Dec 18-19 2015

- Presented a paper titled "Student Attendance System Using RFID Technology" 2nd International Conference on Electrical, Electronics, Instrumentation and Computer Communication, pp 542-549, conducted by Karpagam College of Engineering, Coimbatore, Dec 18-19 2015

- Presented a paper titled "An Efficient Parallelized Generation of Affine Points in Elliptic Curve Cryptography on Multicore Systems", International Conference On Emerging Trends In Engineering, Technology And Management, ICETM 2015,16,17 & 18 April 2015,conducted by RVS College of Engineering & Technology, Dindigul

- Published a paper "Wireless Sensor Network Applications for Detection and leakage control of gas by using X-bee with Arduino", 3rd International Conference on "Hi-tech trends in emerging computational technologies" (ICECT 2015) , 8th and 9th April 2015 conducted by Sethu Institute of Technology, Madurai

- Published a paper "Published a paper "Parallelization of Bayesian Estimation in Share Price Forecasting Using OpenMP", International Conference on Computational Intelligence 2015 (ICCI 2015, 9th and 10th April 2015 conducted by Sethu Institute of Technology, Madurai

- Presented a paper titled "Multiobjective optimization to provide service guarantees for window-constrained scheduling using micro-genetic algorithm", Proceedings of the International Conference on Communication, Computing and Security (ICCCS) pp 457 – 461,Feb 12 -14 2011 conducted at NIT, Rourkela

- Presented a paper titled "Optimization of multimedia packet scheduling in Ad hoc networks using multi-objective genetic algorithm", Proceedings of International Conference on Computer Science and Information Technology, CCSIT, LNCS, Springer-Verlag, Part I, pp. 225-235, Jun 2-4 2011

- Presented a paper titled "Optimization of disk scheduling to reduce completion time and missed tasks using multi-objective genetic algorithm", International Conference on Advances in Computing and Information Technology, Proceedings of ACIT, LNCS, pp. 68-78, Jan 2-4 2011

- Presented a paper titled "Performance study of mutation operator in genetic algorithms on anticipatory scheduling", Proceedings of the International Conference on Computational Intelligence and Multimedia Applications (ICCIMA), Vol. 01, pp 511-518, Dec 13-15 2007 conducted at MEPCO SCHLENK Engineering College

Indian Patent Filed

- Published a patent the titled "An Innovative Wearable Technology Transforming Communication for Sign Language Users by Real-Time Gesture Recognition and Speech Translation", .202541063089 A, July 2025
- Published a patent the titled "Cryptographic Based Device For Secure Digital Transactions", 459167-001, May 2025
- Published a patent the titled "Automatic temperature control in a water dispenser", 2022
- Published a patent the titled "Real time Agricultural Field Monitoring system using IOT", 2021

Books/Book Chapters published

1. Published a book chapter titled "ICT Solutions for Resource Management in Smart Cities" in the book "Interdisciplinary Innovations for Sustainable Development: Technology, Society, and Beyond", published by AMIEE Association, ISBN : 978-1-68576-624-5 , pp- 134 -143 Dec 2025
2. Published a book titled "Artificial Intelligence Integration in Multi-Domain Systems for Advanced Decision-Making and Automation", RADemics Publishers, ISBN10: 9349552086, Nov 2025
3. Published a book titled "Mastering the Mern Stack: From Zero to Full-Stack Hero" RK Publications, ISSN 978-93-48655-90-5, 2025.
4. Published a book chapter titled "AI Driven Disaster Management and Early Warning Systems for Emergency Response and Urban Resilience Planning" in book "IoT Architectures and AI-Enabled Smart City Solutions for Sustainable Urban Development" RADemics Publishers, ISBN10: 9349552248, 2025, DOI: 10.71443/9789349552241
5. Published a book titled "Neural Networks and Deep Learning " by RK Publications, ISBN 978-81-976 657-1-4, November 2024.
6. Published a book titled "Data Structures and Algorithms" by RK Publications, ISBN 978-81-970228-1-4, March 2024.

7. Published Book chapter titled "Use of Socio-Cognitive and Affective Computing to Teach Emotions to Autistic Children", Copyright: 2023, Pages: 12, Source title: Principles and Applications of Socio-Cognitive and Affective Computing