

RESUME

PERSONAL DETAILS:

- i) Name : Dr.M.MALATHI
- ii) Father Name : K. Murugesan
- iii) Husband Name : Dr. S. Mohan, M.D
- iv) Date of birth : 25.07.1979
- v) Age : 43 yrs
- vi) Sex : Female
- vii) Marital Status : Married
- viii) Nationality : Indian
- ix) Contact Address : No.6, Laroze Nagar,
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- xii) Telephone NO : (04368) – 290660



ACADEMIC DETAILS:

- ANNA UNIVERSITY **FIRST RANK HOLDER** (M.E. Communication Systems)
- **KCT ALUMINI GOLD MEDAL** (M.E. Communication Systems)

Course	Institution	Examining Authority	Year of Passing	Marks Gained
PhD	Annamalai University, Chidambaram.	Annamalai University, Chidambaram.	Dec 2018	Commendable
M.E (Comm. Systems)	Kumaraguru College of Technology, Coimbatore-6	Anna University, Chennai.	June 2004	81%
B.E (ECE)	Govt. College of Engg, Salem-11	University of Madras	May 2000	70%
HSC	Sengundhar Mahajana Higher Secondary School, Gurusamipalayam.	Board of Higher Secondary Examination, Tamilnadu.	May 1996	89%
S.S.L.C	Sengundhar Mahajana Girls HighSchool, Gurusamipalayam.	State Board Examination, Tamilnadu.	May 1994	90%

TEACHING EXPERIENCE:

Anna University Research Supervisor ID : 4190004 (Faculty in ECE)

Total year of Teaching Experience: 19 years 7 Months*

Sl. No	Name of the Organization	Designation	Period		Experience	
			From	To	Years	Months
1	E.G.S. Pillay Engineering College, (Autonomous), Nagapattinam	Associate Professor/BME	18.7.2022	Till now	1	(As on 11.7.2023)
2	Vivekanandha College of Engineering for Women (Autonomous), Tiruchengode	Assistant Professor/ECE	3.3.2021	30.6.2022	1	4
3	Sir Isaac Newton College of Engineering & Technology, Nagapattinam	Professor/ECE	27.11.2019	28.2.2021	1	3
4	Bharathiyar College of Engineering & Technology, Karaikal	Associate Professor/ECE	15.6.2012	26.11.2021	7	5
5	NIT, Puducherry	Faculty/ECE	1.8.2011	14.6.2012	-	10
6	Bharathiyar College of Engineering & Technology, Karaikal	Senior Lecturer/ECE	10.6.2009	30.7.2011	2	2
7	Sri Krishna College of Engineering & Technology, Coimbatore	Lecturer/ECE	1.6.2007	30.4.2009	1	11
8	Mahendra Engineering College, Thiruchengode	Lecturer/ECE	19.7.2004	10.5.2007	2	10
9	Muthayammal Engineering College, Thiruchengode	Lecturer/ECE	3.5.2001	30.4.2002	1	-
				Teaching	19	7

SUBJECTS TAKEN:**UG (ECE)**

Transmission lines & waveguides

Satellite Communication

Microwave Engineering

Optical Communication

Measurements and Instrumentation

PG (Communication Systems)

Advanced Radiation Systems
Microwave integrated Circuits
Wireless LAN
Optical Communication networks
High Performance communication Networks

Area of Interest:

- Transmission Lines and Waveguides.
- Electromagnetic waves and Waveguides.
- Antennas and Wave propagation.
- Satellite Communication
- Image Processing

Paper Presented in National / International Journal: 15 (SCI-3, UGC & SCOPUS journals – 9)

1. Malathi Murugesan, Anthromorphic Robotic Hand using Android application, International Journal of Innovation Research in Science, engineering and Technology (IJIRSET), Vol. 12, Issue 5, May 2023.
2. Malathi Murugesan, R. Madonna Arieth, Shankarlal Balraj, R. Nirmala, Colon cancer stage detection in colonoscopy images using YOLOv3 MSF deep learning architecture, Biomedical Signal Processing and Control, Vol. 80, Part 2, Feb 2023. **(Anna University Annexure – I (1421), SCI, Impact Factor: 5.076).**
3. P. Ramya, B. Deepa, R. Nirmala, Malathi Murugesan, K. Rama Abirami, and S. Kannadhasan, Multimode Textile Array Antenna for Millimeter WaveWearable Applications, Journal of Communications vol. 17, no. 11, pp. 941-947, November 2022 **(Scopus indexed).**
4. Dr.M.Malathi, Dr.K.Kalaiselvi, Dr.S.Kokila, Mr.B.Sankarlal, Dr. K. Thenmalar, A Hybrid Deep Learning Model for Effective Segmentation and Classification of Lung Nodules from CT Images, Journal of Intelligent & Fuzzy systems, Vol. 42, No. 3, pp. 2667-2679, Feb 2022. **(Anna University Annexure – I (5551), SCI, WoS & SCOPUS, Impact Factor: 1.851).**

5. Dr.M.Malathi, Dr.S.Mohan, A Novel Computationally Simple k-Means Segmentation Model For Retinal Image Segmentation, Jijnasa, Vol. 38, No. 2, Apr 2021, pp. 122-129 (**UGC CARE – Group I**).
6. Dr.M.Malathi, Dr.P.Santhi, Feed Forward Back Propagation Neural Network Based Computer Aided Detection and Diagnosis of Malignant Regions in Thyroid Images, International Journal of Advanced Science and Technology, Vol. 29, No. 5, 2020, pp. 4901 - 4911 (**UGC CARE – Group II, Scopus indexed**).
7. Dr.M.Malathi, Dr.S.Priya, Image Processing Based Car Parking Reservation, International Journal of Research and Analytical Reviews, Vol. 6, Issue 1, March 2019, pp. 456-459. (**UGC: Serial No. 2484, Journal No. 43602, Impact Factor: 5.75**).
8. Mrs.M.Malathi, Dr.S.Srinivasan, “Computer Aided Detection and Screening of Thyroid Cancer Using ANFIS Classifier”, Current Medical Imaging Reviews, Vol. 14, Issue 3, 2018, pp. 437-443 (UGC: Serial No. 867, Journal No. 14246, ((**Anna University Annexure – II**), **WoS, SCI & Scopus indexed, Impact Factor: 0.299**).
9. Mrs.M.Malathi, S. Priya, Ms.K.Suganya, “Human Shaped Microstrip Patch Antenna for WLAN Application”, International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE), Vol. 6 (6), June 2017, pp. 561-564.
10. Malathi, M. and Srinivasan, S., “Detection and Diagnosis of Tumour Regions in Thyroid Images using CANFIS Classifier”, Applied Medical Informatics, Vol. 39(3-4), Sep - Dec. 2017, pp. 41-48.
11. Mrs.M.Malathi, Dr.S.Srinivasan, “Classification of Ultrasound thyroid Nodule using Feed Forward Neural Network”, Asian Journal of Research in Social Sciences and Humanities, Vol. 7, No. 2, February 2017, Issue: 2, pp. 475-482 (**UGC: Serial No. 360, Journal No. 1262**).
12. Mrs.M.Malathi, Dr.S.Srinivasan, "Thyroid Nodule Image Analysis using Morphological Segmentation", Journal of Advances in Chemistry, Vol.13 (6), February 2017, pp. 6254-6258 (Impact Factor: 1.131).
13. Mrs.M.Malathi, Dr.S.Srinivasan, “Segmentation And Classification Methods On Ultrasound Thyroid Nodule Images: Issues & Challenges”, International Journal of Applied Engineering Research, Vol. 10, No.5 (2015), pp. 4758-4767 (**UGC: Serial No. 3669, Journal No. 64529**).
14. S. Priya, M. Malathi, G. Jayaseelan, “Secured Internet Banking Using Image Captcha Technique”, International Journal of Emerging Technology and Innovative Engineering, Vol.1, Issue 11, November 2015.

15. M. Malathi, S. Priya, G. Jayaseelan, "Failure Correction of Linear Array Antenna Using Cuckoo Search Algorithm", International Journal of Engineering and Advanced Research Technology (IJEART), Vol. 1, Issue 4, October 2015.

Paper Presented in International Conference: 4

1. Presented a paper titled "Improving E-commerce performance by Dynamically predicting the purchased items using FUP Incremental Algorithm" in Sixth International Conference (Springer) on Smart Trends in Computing and Communication on 17 -18th December 2021.
2. Presented a paper titled "A Healthcare Application System with Cyber Security" in Multidisciplinary International Conference on Futuristic Trends for Sustainable Ecosystem on 26-28th August 2021, Rai University, Ahmadabad, Gujarat, India in collaboration with Universidad Autonoma de Tamaulipas (UAT), Mexico.
3. Presented a paper titled "Reservation of Car Parking using Image Processing" in International Conference on Advances Concepts in Computational Engineering and Sciences on 15th March 2019, Bharathiyar College of Engineering and Technology, Karaikal.
4. Presented a paper titled "CCI cancellation for STC OFDM systems" in International Conference on Advances in Engineering and Technology 2011 on 27th & 28th May 2011, EGS Pillai Engineering College, Nagapattinam.

Paper Presented in National Conference: 3

1. Presented a paper titled "An effective method to monitor heart abnormalities with cloud based server system" in National Conference on Advanced Technologies in Occupational Radiation Safety Measures and Management in Healthcare organized by Karpaga Vinayaga College of engineering & Technology, Chengalpattu on 28 & 29th April 2023.
2. Presented a paper titled "Improving the Performance of Carry Select Adder using D-Latch" in National Conference on Emerging Technologies on 24 April 2013.
3. Presented a M.E., project paper titled "Co-channel interference cancellation for space-time coded OFDM systems", in National Conference on Wireless Networks on 27th & 28th Feb 2004, Sri Venkateshwara College of Engineering, Sriperumbudhur.

Patents – 5 + 1 / Copyrights - 1 Published

S.No	Title of the Invention	Patent / Copyright	Organization	Application Number	Publication Date
1	WiFi Printer (2 nd Position)	Design Patent	Indian Patent Agency	341262-001	Filed on 23.3.21 Granted on 16.12.2022
2	Design and implementation of intelligent parking System using IoT (3 rd Position)	Patent	Indian Patent Agency	2021410372 85	Published on 27.8.21
3	Intelligent System for improving health of electric vehicles batteries using Machine Learning and Artificial Intelligence (3 rd Position)	Patent with grant	Germany Utility Patent Application	20 2021 105 689.4	Filed on 19.10.21 Published and Granted on 11.11.21
4	Method and a System for Detecting Odourless and Hazardous gas emission from closed drainage storage locations. (5 th Position)	Patent	Indian Patent Agency	2021410426 54	Filed on 21.9.21 Published on 5.11.21
5	Intelligent Healthcare System for Detection of Tumor Cells In Lung Cancer CT Images Using Image Processing (11 th Position)	Patent	Indian Patent Agency	2021310559 01	Filed on 2.12.21 Published on 7.1.22
6	To an automatic electro-diagnosis of carpal tunnel syndrome using machine learning based system and method thereof (1 st Position)	Copyright	Copyright Office, GoI	31160/2021- CO/L	Filed on 23.12.21 Published on 28.3.22
7	A System And Method For Optimization Technique For The Detection Of Blind Spot In An Eye Using Deep Learning	Patent	Indian Patent Agency	202241032642 A	Filed on 8.06.22 Published on 17.06.22

	(3 rd Position)				
8	Development of a supervisory system for telemetry of a fluid pump using Aurdino and express-PCB (1 st Position)	Patent	Indian Patent Agency	202241054044	Filed on 21.09.22 Published on 30.09.22
9	Gravimetric measuring instruments of capsule for pharmaceutical purposes (1 st Position)	Patent	Indian Patent Agency	370227-001	Filed on 1.09.22 Published on 23.12.22
10	Image processing based automatic tablets delivering Robotics system for medical shops (8 th Position)	Patent	Indian Patent Agency	202341023738	Filed on 30.03.23 Published on 21.04.23

Books Published

S. No	ISBN Number	Title of the paper	Publication Details
1	978-93-91538-40-8	Optimization Techniques in wireless Body Area Network (2 nd Author)	Rs.505, 2021, AkiNik Publication https://doi.org/10.22271/ed.book.1366
2	978-93-91987-04-6	Data Science (2 nd Author)	Rs.320, 2021 Jayalakshmi Publications
3	978-93-5570-095-7	Computer Aided Diagnosis System for Thyroid Abnormalities using Advanced Imaging Techniques (1 st Author)	Rs.515 2021 AkiNik Publication https://doi.org/10.22271/ed.book.1434

Certificate Courses completed:

1. Completed **NPTEL** online Certification course for the subject “**Basics of Biology**” and got **Elite** certificate (**April 2023**).
2. Completed **Udemy** online certification course titled “**AI concepts, Principles & Practices**” on **OCT 21**.

3. Completed **Udemy** online certification course titled “**Face Recognition using Python Language**” on **July 21**.
4. Completed **NPTEL** online Certification course for the subject “**Antennas**” and got **Elite+Silver** certificate (**April 2021**).
5. Completed **NPTEL** online Certification course for the subject “**Patent Drafting for Beginners**” and got **Elite+Silver** certificate (**April 2022**).
6. Completed **Coursera** online certification course titled “**Introduction to the Internet of Things and Embedded Systems**” on **Nov 22**.
7. Completed 8 **MATLAB** Online courses on Feb 2023.

Co-Curricular Activities:

1. Co-Chair in International Conference on Advances Concepts in Computational Engineering and Sciences conducted on 15th March 2019, Bharathiyar College of Engineering and Technology, Karaikal.

Workshop / SDP Attended: 19 (5 days and more FDP/STTP attended – 9)

- 1) Completed **5 Day Webinar** titled ‘**A Peek Into The Leading Edge**’ organized by Department of Electronics and Communication Engineering, **Sri Venkateswara College of Engineering, Sriperumbudur** from 03-07 April 2023.
- 2) Completed **7 Day National Level Online Faculty Development Program on Outcome Based Education (OBE)** organized by S.E.S College, Sreekandapuram in association with **The Kerala State Higher Education Council (KSHEC)** from 18 January to 25 January 2023.
- 3) Got certificate for **½ week FDP** equivalent to NPTEL course with regular FDP to complete the course named “**Patent Drafting for Beginners**” conducted by NPTEL.
- 4) Completed AICTE sponsored Short Term Course on “**Advances in Optical communications**” on **27.01.2022 to 2.2.2022** conducted by Centre for Continuing Education, Indian Institute of Technology Madras.
- 5) Got certificate for **1 ½ weeks FDP** equivalent to NPTEL course with regular FDP to complete the course named “**Antennas**” conducted by NPTEL.
- 6) Participated **10 hours of FDP** on “**Creative thinking (online Live FDP)**” conducted by **ICT Academy** on **7.6.2021 to 11.6.2021**.
- 7) Attended ICTE sponsored STTP on “**Emerging Trends in Soft Computing Techniques for Control Engineering Applications**” on **4-9th November 2019** at Department of Electronics and Instrumentation Engineering, FEAT, Annamalai University, Chidambaram.
- 8) Attended National Seminar on Emerging Trends in the Operation and Control of Wind Energy Systems (ETOCWES '18) organized jointly by the Centre for

- Renewable Energy (CRE), FEAT, Annamalai University, Chidambaram held on 8-9 December 2018.
- 9) Attended National Workshop on Emerging Challenges in the Operation and Control of Solar Power Plants (ECOCSPP '18) organized jointly by the Centre for Renewable Energy (CRE), FEAT, Annamalai University, Chidambaram held on 24-25 March 2018.
 - 10) Participated in the National Workshop on LaTeX & Research Methodology organized by the Department of Electronics and Communication Engineering, National Institute of Technology Puducherry, India at Karaikal during 20 – 21st January 2017.
 - 11) Attended Workshop on Digital Video Broadcasting on 19 & 20th January 2016 at Saveetha University, Chennai.
 - 12) Attended one day National level Workshop titled “Challenges in Journal Publications and Thesis Writing”, organized by the Department of Electronics and Communication Engineering, Paavai Engineering College held on 8th January 2016.
 - 13) One day Workshop on “Wavelet Transform & its Application”, organised by the Department of Electronics and Communication Engineering on 09 March 2015 in Velammal Institute of Technology, Thiruvallur.
 - 14) ISTE approved STTP on “Emerging trends in Image Processing and its Applications” on **08-12 December 2014** at Department of Electronics and Instrumentation Engineering, FEAT, Annamalai University, Chidambaram.
 - 15) ISTE sponsored STTP on “Real Time Signal Processing Using Digital Signal Processor” on **19-24 May 2014** at Department of Electronics and Instrumentation Engineering, FEAT, Annamalai University, Chidambaram.
 - 16) One day National Level Workshop on Android Application Development & Job Opportunities on 16th March 2013 at BCET, Karaikal.
 - 17) National Workshop on Effective Research in Computer Technology on 16th Feb 2013 at BCET, Karaikal.
 - 18) AICTE sponsored SDP on “Environmental Friendly Energy Conservation Strategies” during the period of **21st July to 3rd August** 2009 at BCET, Karaikal.
 - 19) Participated in “Human Resource Development Intervention – Feel Teacher” from 16 to 18 June 2006 at Mahendra Engineering College, Tiruchengode.

As Reviewer:

1. Journal - CMC-CMC-Computers, Materials & Continua – Tech Science Press – 1 paper
2. Journal of Intelligent and Fuzzy Systems (SCI Journal) – 12 papers
3. IEEE MYSURUCON 2021 organized by The First Edition of the Flagship International Conference Series of IEEE Mysore Sub Section in association with IEEE Bangalore Section at NAVKIS College of Engineering, Hassan – 11 papers
4. Journal of Engineering Science & Technology – 2 papers

Membership in Professional Bodies:

- Life member in **ISTE (LM 97833)** from **2014**.
- Life Member in **BMESI (LM 1397)** from **2022**.

Workshop / Guest Lecture Organized:

1. Organized a half a day Guest Lecture titled “**An introduction to Medical Microbiology**” on **14th Nov 2022**, Department of BME, EGSPEC, Nagapattinam.
2. Organized a one day Technical Workshop titled “**Arduino Processors & its Applications**” on **10th Feb 2014**, Department of ECE, BCET, Karaikal.

As Resource Person:

1. Delivered Guest Lecture titled “Analog and digital Devices in Biomedical Engineering” on 22nd Sep 2022 in Gnanamani College of Technology, Namakkal.
2. Delivered Guest Lecture about Satellite Communication in Karaikal Polytechnic College (ISTE Chapter) organized by PIPMATE sponsored STTP on “C-4 Modern Communication” on 13 to 17 July 2009.

PROJECT DETAILS:

PhD: Project Title: **Computer Aided Diagnosis System for Thyroid Abnormalities Using Advanced Imaging Techniques**

Objective: To detect and diagnose the severity of the thyroid abnormalities using ANFIS, Neural Network, CANFIS classifiers.(Simulation using MATLAB).

PG: Project Title1: **Co-channel Interference Cancellation for Space Time Coded OFDM**

Objective: The proposal and simulation of an effective CCI cancellation method in MATLAB.

Mini Project Title2: **Simulation of OFDM Transmitter**

Objective: Simulation of OFDM Transmitter blocks using VeriLogHDL.

UG: Project Title3: **Remote Controller Using Tone Modulation**

Objective: Design of Home appliances Remote Control with Microcontroller using Tone Modulation technique.

EXTRA_CURRICULAR ACTIVITIES:

- Coordinator for **ANNUAL DAY'06** (MARCH 17th 2006), (Mahendra Engineering College)
- Organizer in **RETEEICOM'06** (April 17th)
(A national level Conference of ECE Association, Mahendra Engineering College)
- Organizer in **ZENFET'06** (September 17th)
(A national level Technical Symposium of ECE Association, Mahendra Engineering College)
- Organizer in **RETEEICOM'07** (March 9th)
(A Second National Level Conference of ECE Association, Mahendra Engineering College)
- Coordinator for **Women's Day (2011, 2013, 2014, 2015, 2016, 2018) in BCET, Karaikal.**
- Coordinator for **Fine Arts club in BCET, Karaikal.**
- **Department Coordinator for Women Empowerment Cell & IIC in Vivekanandha College of Engineering for Women (Autonomous), Tiruchengode.**
- **Department Coordinator for NAAC & ISO in E.G.S. Pillay Engineering College (Autonomous), Nagapattinam.**

I hereby declare that the above-furnished details about me are true to the best of my knowledge.

Signature



Dr. M.MALATHI

Place: Karaikal

Date: 11.7.2023