


E.G.S. PILLAY ENGINEERING COLLEGE
(An Autonomous Institution, Affiliated to Anna University,
Chennai)



NAGAPATTINAM – 611002

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

FACULTY PROFILE

	Name	:	Dr. M. Malathi
	Designation	:	Associate Professor
	Department	:	Electronics and Communication Engineering
	Specialization	:	Medical Image Processing
	Qualification	:	B.E., M.E., Ph.D.,
	Date of Birth	:	25-07-1979
	Date of Joining	:	18-07-2022

ACADEMIC QUALIFICATION

Doctoral Degree

Degree and Specialization	:	Ph.D and Electronics and Instrumentation Engineering
Year of Passing	:	2018
Institution Name	:	Annamalai University, Chithambaram
Affiliation Institute/University:	:	Annamalai University

Postgraduate Degree

Degree and Specialization	:	M.E and Communication Systems
Year of Passing	:	2004
Percentage/CGPA	:	81
Institution Name	:	Kumaraguru College of Technology, Coimbatore.

Undergraduate Degree

Degree and Specialization	:	B.E and Electronics and Communication Engineering
Year of Passing	:	2000
Percentage/CGPA	:	70 %
Institution Name	:	Government College of Engineering, Salem
Affiliation Institute/University:	:	University of Madras.

PUBLICATIONS

Journal :

National - Nil
International - 16 Nos

Conference

National - 03
International - 04

List of Publication

1. Murugesan Malathi, Jeyali Laseetha, T.S., Sundaram Senthilkumar, Kandhasamy Hariprasath, Glaucoma disease detection using stacked attention U-Net and deep convolutional neural network, Journal of Intelligent & Fuzzy systems, Vol. 45, No. 1, pp. 1603-1616, July 2023. (**Anna University Annexure – I (10755), SCI, WoS & SCOPUS, Impact Factor: 1.851**).
2. 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.
3. 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, 2023. (Acceptance came from that journal) (**Anna University Annexure – I (1421), SCI, Impact Factor: 5.076**).
4. P. Ramya, B. Deepa, R. Nirmala, Malathi Murugesan, K. Rama Abirami, and S. Kannadhasan, Multimode Textile Array Antenna for Millimeter Wave Wearable Applications, Journal of Communications vol. 17, no. 11, pp. 941-947, November 2022 (**Scopus indexed**).
5. 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**).
6. 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 D**).
7. 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**).
8. 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**).
9. Mrs.M.Malathi, Dr.S.Srinivasan, "Computer Aided Detection and Screening of Thyroid Cancer Using ANFIS Classifier", Current Medical Imaging Reviews, Vol. 14, 2018, pp. 437-443 (UGC: Serial No. 867, Journal No. 14246, (**Anna University Annexure – II), WoS, SCI & Scopus indexed, Impact Factor: 0.299**).
10. 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.
11. 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.
12. 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**).
13. 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).
14. 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**).

15. 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.
16. 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

17. 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.
18. 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.
19. 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.
20. 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

21. 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.
22. Presented a paper titled "Improving the Performance of Carry Select Adder using D-Latch" in National Conference on Emerging Technologies on 24 April 2013.
23. 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.

PATENT PUBLISHED /GRANTED

S.No	Title of the Invention	Patent / Copyright	Organization	Application Number	Publication Date
1	WiFi Printer (2 nd Position)	Patent with Grant	Indian Patent Agency	341262-001	Filed on 23.3.21
2	Design and implementation of intelligent parking System using IoT (3 rd Position)	Patent	Indian Patent Agency	202141037285	Published on 27.8.21
3	Intelligent System for improving health of electric vehicles batteries using Machine Learning and Artificial Intelligence (3 rd)	Patent with grant	Germany Utility Patent Application	20 2021 105 689.4	Published and Granted on 11.11.21

	Position)				
4	Method and a System for Detecting Odourless and Hazardous gas emission from closed drainage storage locations. (5 th Position)	Patent	Indian Patent Agency	202141042654	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	202131055901	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	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 (3 rd Position)	Patent	Indian Patent Agency	202241032642 A	Published on 17.06.22
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	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	Patent	Indian Patent Agency	202341023738	Filed on 30.03.23 Published on 21.04.23

	(8 th Position)				
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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

AWARDS /HONORS / MEMBERSHIPS

- Anna University Research Supervisor ID : 4190004 (Faculty in ECE)
- ANNA UNIVERSITY FIRST RANK HOLDER (M.E. Communication Systems)
- KCT ALUMINI GOLD MEDAL (M.E. Communication Systems)
- ISTE (Life Member -53988)
- BMESI (LM1397)

RESEARCH INTERESTS

Medical Image Processing, Communication Systems, Antennas

CERTIFICATE COURSES COMPLETED

- Completed NPTEL online Certification course for the subject “Basics of Biology” and got Elite certificate (April 2023).
- Completed NPTEL online Certification course for the subject “Antennas” and got Elite+Silver certificate (April 2021).
- Completed NPTEL online Certification course for the subject “Patent Drafting for Beginners” and got Elite+Silver certificate (April 2022).
- Completed Udemy online certification course titled “AI concepts, Principles & Practices” on OCT 21.
- Completed Udemy online certification course titled “Face Recognition using Python Language” on July 21.
- Completed Coursera online certification course titled “Introduction to the Internet of Things and Embedded Systems” on Nov 22.
- Completed 12 MATLAB Online courses till July 2023.

WORKSHOP / GUEST LECTURE ORGANIZED

- Organized a half a day Guest Lecture titled “An introduction to Medical Microbiology” on 14th Nov 2022, Department of BME, EGSPEC, Nagapattinam.
- Organized a one day Technical Workshop titled “Arduino Processors & its Applications”

on 10th Feb 2014, Department of ECE, BCET, Karaikal.

AS RESOURCE PERSON

- Delivered Webinar Guest Lecture titled “Analog and digital Devices in Biomedical Engineering” on 22nd Sep 2022 in Gnanamani College of Technology, Namakkal.
- 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.

CONTACT DETAILS

Mobile No: 9443101712

RESEARCHER PROFILE PAGE

Google Scholar: <https://scholar.google.com/citations?user=CIDREbQAAAAJ&hl=en>