

Academic Qualification:

S.No	Degree	Year Of Passing	Percentage	Institution/Place	University/ Board
1.	Ph.D (Medical Imaging)	2022	-	Thiagarajar College of Engineering, Madurai	Anna University
2.	M.E.,(Embedded System Technologies)	2013	88.5% (University Rank Holder)	Raja College of Engineering and Technology, Madurai	Anna University
3.	B.E., (Electronics and Communication)	2006	74%	SACS M.A.V.M.M.Engineering College, Madurai	Anna University
4.	H.S.C (Bio-Maths)	2002	91%	St.Joseph's Girls Higher Secondary School, Madurai	State Board
5.	S.S.L.C	2000	84%	St.Joseph's Girls Higher Secondary School, Madurai	State Board

Ph.D Title: Delineation of Inferior Alveolar Nerve Canal in Panoramic Dental Images using Image Processing Techniques.

Technical Proficiency:

- Operating System - Windows 7/8/10
- Simulation Software - MATLAB and MULTISIM
- Packages - MS – Office, LaTeX
- Programming Languages - C, Python (Google Colab, Jupyter for image processing)
- Hardware and Networking.

Experience Summary:

Designation	Institution/ Company	Project/Subject Handled	Period
Assistant Professor	Velammal College of Engineering and Technology, Madurai	Data Structures, Design and Analysis of Algorithms, Computational Intelligence	June 2022 – Till Now

Senior Research Fellow	Thiagarajar College of Engineering, Madurai	Delineation of Inferior Alveolar Nerve Canal Using Image Segmentation Methods	May 2018 – May 2021
Project Associate	Thiagarajar College of Engineering, Madurai	Victims Identification in Forensic Odontology using Dental Images	March 2015 – March 2017
Trainee Support Engineer	CSS Corporation Pvt. Ltd., Chennai	Vonage - VOIP	Nov 2006 – May 2007
Support Engineer	CSS Corporation Pvt. Ltd., Chennai	Vonage	May 2007 – June 2009
Application Engineer (Worked as a Escalation Lead)	CSS Corporation Pvt. Ltd., Chennai	Vonage	June 2009 – May 2011

Patents:

- Published a Patent entitled “**System and Technique for Detecting Inferior Alveolar Nerve Canal in Dental Images**” on 16th July 2020 with the **Application number.202041030459**.

Books Published:

- Published a Book Chapter entitled “Shallow CNN Model for Recognition of Infant’s Facial Expression”, in Lecture Notes in Electrical Engineering, Springer, 2023. https://link.springer.com/chapter/10.1007/978-981-99-0047-3_66
- Published a Book Chapter entitled “Application of Machine and Deep Learning Techniques to Facial Emotion Recognition in Infants”, in Intechopen, 2023. <https://www.intechopen.com/online-first/85877>

Papers Published in International Journals:

- Published a manuscript entitled, “Artificial Neural Network Approach to Model Sidewall Metallization of Silicon-based Bistable Lateral RF MEMS Switch for Redundancy Applications”, **Silicon, Springer**, 2022, <https://doi.org/10.1007/s12633-022-02070-2>. <https://link.springer.com/article/10.1007/s12633-022-02070-2>
- Published a manuscript entitled, “Inferior Alveolar Nerve Canal Segmentation by Local Features based Neural Network Model”, **IET-Image Processing** Journal, 2021. <https://doi.org/10.1049/ipr2.12375>. <https://ietresearch.onlinelibrary.wiley.com/doi/full/10.1049/ipr2.12375>
- Published a manuscript entitled, “Automatic localization of inferior alveolar nerve canal in panoramic dental images”, **Signal, Image and Video Processing**. pp.1-9, 2022, doi: 10.1007/s11760-021-02091-1, Impact Factor: 2.157. <https://link.springer.com/article/10.1007/s11760-021-02091-1>
- Published a manuscript entitled, “A Fuzzy Based Inferior Alveolar Nerve Canal Detection In Panoramic CBCT Images”, **European Chemical Bulletin**, Volume -12, Special Issue-5(Part-

A),2023. <https://www.eurchembull.com/issue-content/a-fuzzy-based-inferior-alveolar-nerve-canal-detection-in-panoramic-cbct-images-5155>

- Published a manuscript entitled, “Detection of Inferior Alveolar Nerve Canal by Feature based Machine Learning Approach”, NCAIEV21 **Journal of Physics: Conference Series** 1917 (2021) 012025 IOP Publishing doi:10.1088/1742-6596/1917/1/012025. <https://iopscience.iop.org/article/10.1088/1742-6596/1917/1/012025/meta>
- Published a manuscript entitled, “DWT Based QR Steganography”. NCAIEV21, **Journal of Physics: Conference Series** 1917 (2021) 012020 IOP Publishing doi:10.1088/1742-6596/1917/1/012020. <https://iopscience.iop.org/article/10.1088/1742-6596/1917/1/012020/meta>
- Published a manuscript entitled, "Deep Learnt Features and Machine Learning Classifier for Texture Classification", **IOP:Journal of Physics Conference Series**, Volume 1706 (2020). <https://iopscience.iop.org/article/10.1088/1742-6596/2070/1/012108/meta>
- Published a manuscript entitled, “Artificial Neural Network Modelling of RF Switches”, **Gradiva Review Journal**, Vol. 8, Issue 5, pp. 596 – 605. ISSN No. 0363 – 8057. doi: 10.37897.GRJ.2021.V7I11.21.49843.

Papers Published in International/National Conference:

- Published and presented a paper, “Wavelet Based Contour Extraction for Person Identification in Dental Images”, in 8th International Conference on Business and Industrial Research, ICBIR -2023 at E Building, Thai-Nichi Institute of Technology, Bangkok, Thailand.
- Published and presented a paper, “Celebrity: Creation of a Database Towards an Automatic Beauty Evaluation System”, in 8th International Conference on Business and Industrial Research, ICBIR - 2023 at E Building, Thai-Nichi Institute of Technology, Bangkok, Thailand.
- Published and presented a paper, “Radon feature based Knee Osteoarthritis Severity Assessment”, in IconSCEPT 2023, NIT Puduchery.
- Published and presented a paper, “Automatic Segmentation Of Mandibular Condylar In Dental OPG Images Using Modified Mask RCNN Condylar Segmentation”, in ATCON, ICAIA 2023.
- Published and presented a paper, “Automatic Segmentation of Inferior Alveolar Nerve Canal in Dental OPG Images”, in the International conference on Agriculture, Healthcare and Green Computing Perspective of Communication Technologies – ICAHGT -2022. (AIP Conference Proceedings)
- Published and presented a paper, “Image enhancement techniques for fundus images - A review”, in the International conference on Agriculture, Healthcare and Green Computing Perspective of Communication Technologies – ICAHGT -2022. (AIP Conference Proceedings)
- Presented a paper, “Grading of Knee Osteoarthritis Severity by Radon Features, 5th International Conference on Recent Trends in Advanced Computing (ICRTAC22). VIT in collaboration with University Technology PETRONAS UDP Malaysia. (Yet to be Published)
- Presented a paper, “Automatic Fruit Classification Using Inception ResNetV2”, Third International Conference on Advances in Physical Science and Materials (ICAPSM 2022), AIP Conference proceedings (Yet to be Published)
- Presented a paper, “Shallow CNN Model for Recognition of Infant’s Facial Expression”, in the 4th International Conference on Machine Intelligence and Signal Processing – MISP 2022.

- Presented a paper, “Diagnosis of Dental Deformities using Image Processing Techniques” in the International Conference on Innovations in Engineering and Industrial Applications (ICIEIA’2018)
- Presented a paper, “A Pattern Matching Based Secure Virus Correction and Testing Processor for Embedded Network” in the National Conference “NCINM 2013” held on 4th April 2013.
- Presented a paper, “A Real Time Virus Detection and Correction Processor for Secure Embedded Network” and in the National Conference “NCNIC’13” held on 15th March 2013.
- Presented a paper, “Virus Detection and Correction Processor for Secure Embedded Network” in the International Conference “ICACT 2013” held on 8th March 2013.

Achievements & Awards:

- Received **Runner Award in DEPONDFI’23 (Detection of Pond Fish’23) Challenge** conducted in **NCVPRIPG – 2023, IIT Jodhpur.**
- Received Supervisorship from Anna University (4130028)
- Got **University Rank (17th)** in M.E., (Embedded System Technologies)
- Awarded and Received **Senior Research Fellowship** from **Council of Scientific & Industrial Research (CSIR) - Human Resource Development Group** with the SRF File no.: 08/237(0015)/2018-EMR-I.
- Awarded and Received – **TEQIP Teaching Assistantship** for four months in 2018.
- **Won Best Paper Award** in National Virtual Conference on Advanced Informatics, Electronics and Vision (NCAIEV’ 21).
- Received “**Consistent Performer Award**” from CSS Corp Pvt., Ltd for the year 2009 -2010.

Seminars /Workshops Organized:

- Organized a seminar, “Frontend Development”, in association with Institutions Innovation Council on 28th Jan 2023.
- Organized a seminar, “All you need to know about higher studies abroad”, (Mr.S.Ramesh, Regional Manager, Manya Education) in association with Career Guidance Cell and Institutions Innovation Council on 8th Feb 2023.
- Organized a seminar, “Full Stack Development and Deployment for Library Management System”, (K.S.Sabarinathan, CTS) in association with National Digital Library of India and IT Association on 04th March 2023.
- Organized a webinar, “AI and its Applications”,(Mr.Dilip Muralidharan, Program Manager, Academicalliances, Splunk, Chennai) in association with Institutions Innovation Council on 21st March 2023.
- Organized a webinar, “Step Ahead to Placement”, (Mr.A.S.Arjun Kumar, Programmer, Analyst Trainee, CTS) in association with Career Guidance Cell, Institutions Innovation Council and ALMA Matter on 27th May 2023.

Seminars /Workshops Attended:

- Participated in CSIR Sponsored National Seminar “ADATEWA 2011” in December 2011.
- TEQIP Sponsored workshop on “Research Paper Writing” organized by the Academic Research Section of Thiagarajar College of Engineering on 15th September 2016.

- A two day TEQIP-II sponsored “ACM Distinguished Speaker Programme” at Thiagarajar College of Engineering held on 9th – 10th December 2016.
- TEQIP Sponsored one day workshop on “Intellectual Property Rights and Innovations” held on October 6th 2017.
- TEQIP Sponsored one day workshop on “Myths and Realities of R&D and IPR at EEIs: Issues, Challenges and Opportunities” at Thiagarajar College of Engineering held on 13th July 2018.
- Two day workshop on “Soft Computing Techniques” at Thiagarajar College of Engineering held on 13th – 14th August 2018.
- TEQIP Sponsored two day workshop on “Recent Trends and Research Challenges in Deep Learning” at Thiagarajar College of Engineering held on 30th -31st August 2018.
- TEQIP III Sponsored one day national workshop on “Medical Informatics” at Thiagarajar College of Engineering held on 17th December 2018.
- Two-Days FDP on “Deep Learning for Image Analysis” at Thiagarajar College Engineering, held on 30th July & 31st July 2021.

Lectures Delivered:

Topic	Delivered At	Period
Lecture on Research Paper Writing	Department of CSE, Velammal College of Engineering and Technology, Madurai	09.08.2023

Co-Curricular Activities:

- Undergone Inplant Training in the Signal and Telecommunication Department of Southern Railway, Madurai.
- Undergone Inplant Training in the Protection and Communication Circle/T.N.E.B. Madurai.
- Undergone Inplant Training in the AMSARAJ TEMPO, Madurai
- Undergone Inplant Training in the Maintenance Department of Fortune Pandiyan Hotel, Madurai.

Keyskills:

- Good Communication Skills with a high level of Confidence.
- Self-Motivated, Posses the ability to handle Stress, Conflicts with Patience, Strategic thinking, flexible to environment.