

## Faculty Profile



Name of the Faculty : **Dr.M.ARIVAMUDHAN**

Designation : **ASSOCIATE PROFESSOR**

Department: **ELECTONICS AND COMMUNICATION ENGINEERING**

Date of Joining : **28.07.2000**

Faculty ID    AICTE ID: **1\_7513818008**  
ANNA UNIVERSITY ID: **6135133**

E-Mail Address : **aumaei@gmail.com, arivu@gcedpi.edu.in**

Qualification : **M.E.,Ph.D**

Specialization : **MEASUREMENT AND INSTRUMENTATION, SIGNAL PROCESSING AND IMAGE PROCESSING**

Professional Experience: **24 years**

Research Guidance: **01**

## Awards and Honors :

1. Acting as Member for Board of studies in the Department of Electronics and Instrumentation Engineering, Adhiyamaan College of Engineering Hosur-635109, Krishnagiri Dist.
2. Acting as Subject Expert Member for Board of studies in the Department of Biomedical Engineering, Sri Manakula Vinayagar Engineering College, Madagadipet, Puducherry-605107.
3. Acted as Resource Person and handled session on the topic “Recent Advances in Sensor Technology” on 05<sup>th</sup> Feb 2021, Gnanamani College of Technology, Pachal, Namakkal Dist, Oaganized ATAL Sponsored FDP on, “Sustainability of Next Generation Robotics using IOT and Sensor Networks” held between 02<sup>nd</sup> Feb 2021 to 06<sup>th</sup> Feb 2021.
4. Delivered invited talk on "Condition Monitoring and Data Analysis of Transformer" during the forenoon session (14.11.2019) of AICTE Sponsored Two Week FDP on “Challenges and Opportunities in Execution of Big Data Analytics for Smart Electrical Power Distribution System Design: A Research Perspective”. Organized by Dept of EEE, K.S Rangasamy College of Technology, Tiruchengode-637215, Namakkal Dist.
5. Chaired a Technical session during the conference 2019 Third IEEE International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2019) will be held at SVS College of Engineering Coimbatore, Tamil Nadu, India during 20 - 22, February 2019.
6. Paper Title “FPGA Realization of FFT and DWT Algorithm for the detection of transformer winding deformation” has been chosen for the best paper award in the *2018 IEEE International Conference on Intelligent Computing and Control Systems (ICICCS)*, Jun 14-15, 2018, Vaigai College of Engineering, Vinayagapuram, Therkutheru, Madurai.
7. Delivered a lecture on “Recent Trends in Sensors” on 28<sup>th</sup> September 2016, “Waves Association Inauguration”, Organized by Dept of ECE, Shanmuganathan Engineering College, Arasampatti-622507, Pudukkottai Dist.
8. Presented a Guest Lecture on’ “Introduction to Embedded Systems” in the National Conference Recent Advancement in Technologies (RAT 2014) held on 23.02.2014 at Mother Terasa College of Engineering and Technology, Mettusalai, Illupur-622102, Pudukkottai Dist.
9. Acted as Jury for the evaluation of EEE/ECE paper presentation done by the participants in the National Conference Recent Advancement in Technologies (RAT 2014) held on 22.02.2014 at

Mother Teresa College of Engineering and Technology, Mettusalai, Illupur-622102, Pudukkottai Dist.

10. Delivered a lecture on “Embedded Control application in Instrumentation” on 18<sup>th</sup> Feb 2013 and hands on training session on 19<sup>th</sup> Feb 2013 in the Short Term Training Programme on “Emerging Trends in Embedded Systems and its Applications”, sponsored by TEQIP Phase II, for the Faculty members of AICTE recognized Institutions and Personal from Industry from 18<sup>th</sup> to 22<sup>nd</sup> February 2013, Organized by Division of Computer Engineering, School of Engineering, Cochin University of Science and Technology, Kochi-682022. Kerala.

## Publications:

### (i) International Journals :

1. Arivamudhan M, Santhi S, "Condition Monitoring of Power Transformer using MEMS Sensor.", *AENSI Journals Advances in Natural and Applied Sciences*, Volume 8, Number 20, Dec 2014, pp. 91-99.
2. Vanamadevi.N, Arivamudhan.M, Santhi.S, *Artificial Intelligence and Evolutionary Algorithms in Engineering Systems* , Springer India: Springer, pp. 645-656. Nov 2014.
3. Arivamudhan.M, Santhi.S, "Time frequency analysis of transformer winding deformation using S transform.", *International Journal of Recent Scientific Research*, Volume 5, Number 3, (ISSN: 0976-3031), Mar 2014, pp. 557-561.
4. Arivamudhan.M, Santhi.S, Abirami.S, Sugasini.G, "Improved detection sensitivity with combined WPT and HHT for Power transformer winding deformation analysis.", *International Journal of Computer Applications*, Volume 1, Number 1, (ISBN: 973-93-80882-84-0), Jul 2014, pp. 5-9. 2014.
5. Arivamudhan.M, Santhi.S, Saranya.R, Saliyavaganan.S , "FEM based reactance computation for transformer winding deformation detection .", *International Journal of*

*Computer Applications*, Volume 1, Number 1, (ISBN: 973-93-80882-84-0), Jul 2014, pp. 1-4. 2014.

6. Arivamudhan.M, Santhi.S, "Improved method for winding deformation detection sensitivity in transformer .", *International Journal of Engineering Science Invention*, Volume 2, Number 10, (ISSN:2319-6734), Oct 2013, pp. 48-55. 2013.
7. Arivamudhan.M, Santhi.S, *Recent advancements in System Modeling applications Lecture Notes in Electrical Engineering*, Springer: Springer-Verlog, pp. 287-300. Mar 2013.

(ii) National Journals:

1. Arivamudhan.M, Santhi.S, Sugasini.G , "Hilbert Huang transform for the analysis of transformer tank vibration signal.", *Journal of Emerging Technologies – Image Processing and Networking*, Volume 8, Number 4, (ISSN: 0973-2993), Feb 2014, pp. 15-20. 2014.
2. Vanamadevi.N, Arivamudhan.M, Santhi.S, "Transformer impulse faults classification using discrete wavelet transform and radial basis function neural network.", *Journal of Emerging Technologies – Image Processing and Networking*, Volume 8, Number 4, (ISSN: 0973-2993), Feb 2014, pp. 9-14. 2014.

(iii) International Conferences:

1. Arivamudhan M, Santhi S, Analysis of mechanical integrity in power transformer using statistical techniques, *2019 Third IEEE International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2019)*, Feb 20-22, 2019, SVS College of Engineering, Coimbatore, pp. 237-242.
2. M.Arivamudhan, S.Santhi, Gabor Wigner Transformation Technique to Identify Transformer Winding Movements, *15th IEEE India Council International Conference (INDICON 2018)*, Dec 16-18, 2018, Amrita Vishwa Vidyapeetham, Coimbatore, pp. 362-368.
3. M.Arivamudhan, S.Santhi, FPGA Realization of FFT and DWT Algorithm for the detection of transformer winding deformation, *2018 Second International Conference on Intelligent Computing and Control Systems (ICICCS)*, Jun 14-15, 2018, Vaigai College of Engineering,

Vinayagapuram, Therkutheru, Madurai,, pp. 210-214.

4. M.P.Madhan Mohanaraj, S.Santhi, M.Arivamudhan,N.Vanamadevi, FPGA Realization of Signal analysis Algorithms for transformer winding deformation detection, *International Conference on Communication and Control Engineering (ICCCE-2K16)*, Dec 29-30, 2016, Dept. of ECE, University College of Engineering, Villupuram, pp. 1-6.
5. Arivamudhan M, Santhi S, Condition Monitoring of Power Transformer using MEMS Sensor, *Electrical, Electronics, Instrumentation and Computer communication (E2IC2)*, Dec 12-13, 2014, Karpagam college of Engineering, Coimbatore, Tamil Nadu, pp. 1-5.
6. Vanamadevi.N, Arivamudhan.M, Santhi.S, Gabor transform for the time frequency localization of impulse faults in a transformer, *SpringerInternational Conference on Artificial Intelligence and Evolutionary Algorithms in Engineering Systems (ICAEES-2014)*, Apr 22-23, 2014, Department of Electrical and Electronics Engineering, Noorul Islam Centre for Higher Education, Noorul Islam University, Nagercoil, India, pp. 92-92.
7. Arivamudhan.M, Santhi.S, Sugasini.G, Hilbert Huang transform for the analysis of transformer tank vibration signal, *IEEE International Conference on Emerging Trends in Science, Engineering, Business and Disaster management(ICBDM 2014)*, Feb 28-28, 2014, Department of Electrical and Electronics Engineering, Noorul Islam Centre for Higher Education, Noorul Islam University, Nagercoil, India,, pp. 15-20.
8. Vanamadevi.N, Arivamudhan.M, Santhi.S, Transformer impulse faults classification using discrete wavelet transform and radial basis function neural network, *IEEE International Conference on Emerging Trends in Science, Engineering, Business and Disaster management(ICBDM 2014)*, Feb 28-28, 2014, Department of Electrical and Electronics Engineering, Noorul Islam Centre for Higher Education, Noorul Islam University, Nagercoil, India, pp. 9-14.
9. Arivamudhan.M, Santhi.S, Abirami.S , Broad band excitation for transformer winding deformation detection and analysis using Hilbert Huang transform, *8 th International conference on Trends in Industrial Measurements and Automation (TIMA-2013)*, Dec 22-24, 2013, Department of Instrumentation Engineering, MIT Campus, Anna university, Chennai, pp. 79-83..
10. Vanamadevi.N, Arivamudhan.M, Santhi.S, Detection and Classification of Impulse Faults in Transformer Using Wavelet Transform and Artificial Neural Network, *IEEE*

*International conference on Sustainable Energy Technology (ICSET 2008)*, Nov 24-27, 2008, SMU Conference Centre, Singapore Management University, Singapore, pp. 72-76.

11. Arivamudhan.M, Vanamadevi.N, Santhi.S , Measurement of axial leakage flux for the detection of winding deformation in transformer, *IEEE Region 10 Conference, TENCON 2008*, Nov 19-21, 2008, University of Hyderabad, Hyderabad, pp. 1-6.

(iv) National Conferences:

1. M.Arivamudhan, S.Santhi, A.Arunkumar, Least Square estimation approach for transformer parametric model identification, *Conference on Instrumentation Systems, Measurement and Automation (CISMA-2015)*, Jan 7-8, 2016, Dept. of EIE, Pondicherry Engineering College Puducherry, pp. 151-154.
2. Arivamudhan.M, Santhi.S, Saranya.R, Saliyavaganan.S, FEM based reactance computation for transformer winding deformation detection, *Third national conference on Emerging Trends in Electronics, Instrumentation, Automation and control(ETEIAC'14)*, Mar 19-19, 2014, Karpagam college of Engineering, Coimbatore. TamilNadu, pp. 16-19.
3. Arivamudhan.M, Santhi.S, Abirami.S, Sugasini.G, Improved detection sensitivity with combined WPT and HHT for Power transformer winding deformation analysis, *Third national conference on Emerging Trends in Electronics, Instrumentation, Automation and control (ETEIAC'14)*, Mar 19-19, 2014, Karpagam college of Engineering, Coimbatore, TamilNadu, pp. 132-136.
4. Arivamudhan.M, Santhi.S, Model based approach for fault detection in power transformers using Particle swarm intelligence, *36th National systems conference 2012*, Dec 6-8, 2012, Department of Electronics and Instrumentation Engineering, Systems Society of India, Annamalai Nagar, Chidambaram, pp. 226-232.
5. Arivamudhan.M, Vanamadevi.N, Santhi.S , Lab view Based Approach for the Computation of Electromagnetic Force on Transformer Winding During Short Circuit Test, *33rd National Symposium on Instrumentation* , Dec 8-10, 2008, Andhra University College of Engineering, Andhra University, Visakhapatnam, Instrument Society of India .  
pp. 195-196.

6. Vanamadevi.N, Arivamudhan.M, Santhi.S, Neural Network Based Approach for the online detection and Diagnosis of Impulse Faults in a Transformer, *33rd National Symposium on Instrumentation*, Dec 8-10, 2008, Andhra University College of Engineering, Andhra University, Visakhapatnam, Instrument Society of India. pp. 197-198.

Conferences/Workshops/ Seminar/  
Short Term Refresher Courses  
Attended

Sl.No	Title	Period	Organized by
1	Repair & Maintenance of Ammeter, Voltmeter, Multimeter & other Measuring Instruments	20-11-2006 to 24-11-2006	Electronics Service Center, Dept. of ECE, NITTTR, Chandigarh.
2	Artificial Neural Networks and Fuzzy Logic	27-11-2006 to 01-12-2006	Dept. of EEE, NITTTR, Chandigarh.
3	Recent Trends in Process Automation	30-04-2007 to 13-05-2007	Dept. of EIE, Pondicherry Engineering college, Pondicherry.
4	Advanced Digital Control System and Simulation	18-06-2007 to 22-06-2007	Dept. of EEE, NITTTR, Kolkata.
5	Recent Trends in Energy	25.05.2009 to 05.06.2009	Dept. of EEE, PSNA college of Engineering & Technology, Dindigul
6	Soft Computing Techniques and their Applications	23.11.2009 to 27.11.2009	Dept. of ECE, NITTTR, Chandigarh.
7	Virtual Instrumentation	30.11.2009 to 04.12.2009	Dept. of EEE, NITTTR, Chandigarh.
8	MATLAB	22.11.2010 to 26.11.2010	Dept. of EEE, NITTTR, Chandigarh.

9	Computational Biology	21.11.2011 to 03.12.2011	Dept. of EIE, Annamalai University, Annamalai Nagar. (AICTE)
10	Industrial Automation and Control	19.12.2011 to 30.12.2011	Dept. of EIE, Annamalai University, Annamalai Nagar. (AICTE)
11	Matlab Programming Fundamentals and Applications	09.10.14 and 10.10.14	Dept. of EIE, Annamalai University, Annamalai Nagar.
12	Embedded Control for PV FED Electric Drive Systems	09.03.15 to 14.03.15	Dept. of EIE, (UGC), Annamalai University, Annamalai Nagar.
13	Labview Programming Fundamentals	28.03.2016	Dept. of EIE, Annamalai University, Annamalai Nagar.
14	The Teaching Profession: Changes, Challenges and Perspectives	30.03.2016	Dept. of EIE, Annamalai University, Annamalai Nagar.
15	Engineering Approaches to System Biology- Recent Advancements	07.11.2016 to 21.11.2016	Dept. of EIE, Annamalai University, Annamalai Nagar.(DBT Sponsored)
16	System Identification	13.10.17	Dept. of EIE,Pondy (TEQIP-III)

Membership in professional body: Indian Society for Technical Education –LM 97846

