

## Department of Computer Science and Engineering

### Personal Details

Name:	Dr.R.Ahila
Designation:	Professor
Educational Qualification:	M.E.,Ph.D.
Experience:	23 years
Area of Specialization:	Soft Computing

### Educational Details

S.No.	Degree	Branch/Specialization	Institute/University	Year
1	BE	Electrical and Electronics Engineering	Government College of Engineering,Tiunelveli-7	1995
2	ME	Computer science and Engineering	Manonmanium Sundaranar University	2004
3	Ph.D.	Computer science and Engineering	Manonmanium Sundaranar University	2016

### Publication Details

#### JOURNAL PUBLICATIONS:

1. R.Ahila, Joy Kiruba P.A, Biruntha M, ” Smart Energy Management System for Residential Buildings Using IoT and Machine Learning”, E3S Web of Conferences, 387, 04009 (2023).
2. R.Ahila, Nirmala, Vidhi Rawat et.al,” Advanced Control Techniques for High-Power Power Converters, E3S Web of Conf.,Volume 540, 2024.
3. 3.Ahila R ,K. Babu,K Subramani et.al,”Model and Algorithm of Multimodal Transportation in Logistics Transportation Based on Particle Swarm Optimization”, 814-818 d International Conference On Smart Technologies For Smart Nation (SmartTechCon) | 979-8-3503-0541-8/23/\$31.00 ©2023 IEEE | DOI: 10.1109/SmartTechCon57526.2023.10391805
4. R.Ahila, Dr.V.Sadasivam, K.Manimala, “An integrated PSO for parameter determination and feature selection of ELM and its application in Classification of Power system disturbances”, **Applied Soft Computing, Elsevier**, Volume 32, July 2015, pp. 23–37.

5. R.Ahila, Dr.V.Sadasivam, "Performance enhancement of extreme learning machine for power system disturbances classification," **Soft Computing**, Springer-Verlag, Published online on 8<sup>th</sup> May 2013. DOI 10.1007/s00500-013-1051-5, ISSN: 1432-7643 (Print) 1433-7479 (Online).
6. R.Ahila, Dr.V.Sadasivam, K.Manimala, "Particle swarm optimization-based Feature selection and parameter Optimization for power system Disturbances classification", **Applied Artificial Intelligence**, Taylor and Francis publications (U.K), International Journal, 26:9, 2012, pp. 832–861, ISSN: 1751-9659.
7. R.Ahila, Dr.V.Sadasivam, " S Transform based Extreme Learning Machine for Power system Disturbances Classification", **Journal of the Institution of Engineers (India) : Series B** ,volume 94,Issue 3,pp.179-191,September 2013,ISSN: 2250-2106 (print version) ISSN :2250-2114(electronic version).
8. R.Ahila, K.Manimala and Dr. K.Selvi. "Optimization techniques for improving Power quality data mining using wavelet packet based support vector machine", **Neuro computing**, Impact factor 1.4, Vol. 77, No. 1, pp. 36-47, **Elsevier-ScienceDirect**, 2012.
9. R.Ahila, K.Manimala and Dr. K.Selvi "Optimal feature set and parameter selection for power quality data mining", **Applied Artificial Intelligence**, Impact factor .563, Vol. 26, pp. 204-228, **Taylor and Francis-U.K**, 2012.
10. R.Ahila, K.Manimala and Dr. K.Selvi. "Hybrid soft computing techniques for feature Selection and parameter optimization in power quality data mining", **Applied soft computing**, Impact Factor 2.1, Vol. 11, No. 8, pp. 5485-5497, **Elsevier –ScienceDirect**, 2011
11. R.Ahila, K.Manimala and Dr. K.Selvi. "Power Disturbances Pattern Recognition Using Support Vector Machine", International Journal of Information Acquisition , Vol. 8, No. 1, pp. 53-64, World Scientific Publishing Company, China, 2011
12. R.Ahila, K.Manimala and Dr. K.Selvi. "Data selection technique for enhancing the performance of SVM for Power Quality Data Mining", International Journal of Image Processing and Networking Techniques, Vol. 3, No.1, pp. 1-9, 2010
13. R.Ahila and K.Manimala," S Transform Based Power Disturbances Classification: ANNs against SVMs", Journal of The Institution of Engineers (India), Volume 91, December 18,2010, [ISSN: 0020-3386], 37-44.
14. R. Ahila, M. Sudhakaran, and K. Manimala," FW\_SFS: A Novel Feature selection Method for power quality Data mining", International Journal of Power and energy Systems, ACTA Press / IASTED, Canada. [ISSN: 1078-3466], 4652-4665, June 2010.
15. R.Ahila, K.Manimala and Dr. K.Selvi, "Power Quality Data Mining Using Improved Probabilistic Neural Network", Journal of Computer Science, Vol. 4, No.1, pp. 1310-1323, 2009
16. R.Ahila, K.Manimala and Dr. K.Selvi, "Fast SVMs for Power Quality Data Mining" International Journal on Information Sciences and Computing, Vol. 3, No. 1, pp. 1-7, 2009.
17. R.Ahila, K.Manimala and Dr. K.Selvi, "Artificial Intelligence Techniques Applications for Power Disturbances Classification", International Journal of Electrical Systems Science and Engineering, summer, pp.150-157, Waset Publications, Paris, France, 2008.

#### CONFERENCE PUBLICATIONS:

1. R.Ahila, K.Manimala and Dr. K.Selvi, "Power Quality Data Classification using S-Transform based GA SVM," in Proc. National Power Energy Conference, pp. 182-189, 2010.
2. R.Ahila and K.Manimala,"Comparison of Datamining Techniques for Power Disturbances Classification" in the International Conference "International Conference on Sensors,Security,Software and Intelligent Systems (ISSIS-2009)" conducted by Coimbatore Institue of Technology, Coimbatore, 08-10 January 2009
3. R.Ahila and K.Manimala, "Comparison of Feature Extraction Techniques for Power Quality Data

Mining Using ANN,” in Proc. National Conference on emerging Trends in Information Communication Technology, pp. 11, 2008.

4. R.Ahila, K.Manimala and Dr. K.Selvi. “A novel s-transform based fuzzy-neuro method for power disturbances classification”, in Proc. Explorations & Innovations in Advanced Computing, pp. 92-97, 2008.
5. R.Ahila and K.Manimala, “Power Quality Datamining using Support Vector Machine” in an “Indian Conference on Computational Intelligence and Information Security (ICCIIS-2007)” conducted by Thiagarajar College of Engineering, Madurai, 25 th January 2007. (Proceedings page 192-195)

### Professional Society Membership

1. Life member of ISTE, LIFE MEMBER.NO: LM 25788
2. Life member of IEI LIFE MEMBER MIE M.NO: M-137828-1
3. Member of Computer Society of India: Member ID: F8004826

### Program Organised

1. Coordinator for International Conference on Innovations in Computing: Shaping the Digital Future (ICICSDF'24) organized by the Department of Computer Science and Engineering, New Prince Shri Bhavani College of Engineering and Technology, on 4<sup>th</sup> May 2024.
2. Coordinator for International seminar on Computer Vision 2013 from 8<sup>th</sup> to 9<sup>th</sup> of October 2013 organized by the Department of Computer Science and Engineering, Dr. Sivanthi Aditanar College of Engineering, Tiruchendur, sponsored by AICTE, New Delhi.
3. Coordinator for National level 2 days seminar on “Medical Imaging” from 17<sup>th</sup> to 18<sup>th</sup> of September 2010 organized by the Department of Computer Science and Engineering, Dr. Sivanthi Aditanar College of Engineering, Tiruchendur and the Department of Information Technology, Government of India
4. Coordinator for National level students Symposium from 14<sup>th</sup> to 17<sup>th</sup> of February 2010 organized by Dr Sivanthi Aditanar College of Engineering, Tiruchendur.

### Program Attended

#### FDP/STTP:

1. “Exploring Data Science with Modern Tools”, five days FDP organized by Dhanalakshmi College of Engineering from 22.07.2024 to 26.07.2024
2. “Electrical Vehicle” in Collaboration with ISTE, New Delhi from 15.01.24 to 20.01.24, one week online FDP organized by Department of Electrical Engineering, ATS's Sanjay Bhokare Group of Institutes, Miraj.
3. “Education 5.O”, five days FDP organized by : Dr M.G.R. Educational and Research Institute from 15.05.2023 to 19.05.2023

4. "Artificial Intelligence and Machine learning" online faculty Development Program organized by Department of CSE, NIT Warangal/ 24-05-2021 to 28-05-2021.
5. National Level 2 days Seminar on Medical Imaging organized by Department of Computer Science and Engineering , Dr Sivanthi Aditanar College of Engineering , Tiruchendur Sponsored by Department of Information Technology , Government of India on 17&18-09-2010
6. National Level 3 days Short Term Course on Neural information Processing Systems organized by Department of Computer Science And Engineering , Dr Sivanthi Aditanar College of Engineering , Tiruchendur Sponsored by AICTE on 27-29 04 -2010
7. Two Days Seminar on "Intelligent Computing" Sponsored by AICTE in Dr Sivanthi Aditanar College of Engineering , Tiruchendur on 3<sup>rd</sup> and 4<sup>th</sup> July 2009

**WORKSHOP:**

1. Workshop on "Demystifying Generative AI Technologies and Tools" organized by Department of Computer Science and Engineering ,CEG campus ,Anna university in collaboration with IBM,Chennai
2. "ChatGPT " Naan mudhalvan training course organized by GUVI from 24.07.2023 to 28.07.2023
3. "Innovation Ambassador training (Advanced Level)", organized by MOE's Innovation Cell & AICTE total 15 sessions and 30 contact hours during IIC calendar year 2021-22.
4. "Cyber-attacks and web application security", Two days online workshop organized by Velammal Institute of Technology. Educational and Research Institute from 25.02.2022 to 26.02. 2022
5. "Innovation Ambassador training (Foundation Level)", organized by MOE's Innovation Cell & AICTE from 30.06.2021 to 30.07.2021.
6. Workshop on Image Processing and Applications organized by Computer Science and Engineering ,Dr.Sivanthi Aditanar College of Engineering,Tiruchendur on 9<sup>th</sup> & 10<sup>th</sup> November 2009.
7. Object Oriented Analysis and Design using UML with fundamentals of Rational Rose" on 17<sup>th</sup> – 19<sup>th</sup> July 2008 conducted by IBM Software Education.
8. Workshop on ISO 9000:2000 series "Internal Quality Auditor Training Course" conducted on 22-06-2007 delivered by Shah Consultancy.
9. Workshop on MathCAD Certified Training Course at Crescent Engineering College on 5<sup>th</sup> & 6<sup>th</sup> May 2004.
10. Induction Training program for Teachers conducted on 17<sup>th</sup>, 21<sup>st</sup> & 22<sup>nd</sup> of July 1997 at Dr.Sivanthi Aditanar College of Engineering, Tiruchendur.

**CONFERENCE:**

1. Dr. R.Ahila, Hemalatha B,Kowsalya S,Dynamic Hand Gesture Recognition Using Multi-Branch Attention Based Graph And Machine Learning Model, International Conference on Recent Trends in Science,Technology,Engineering & Mathematics (ICSTEM-2024)" conducted by RRASE College of Engineering on 6<sup>th</sup> 7 th April 2024.
2. Dr. R.Ahila , Gold Gracelet B H,Durga V,Pavithra R,Ultrasound Image-Based Classification Of Ibd With Lightgbm, International Conference on Recent Trends in Science,Technology,Engineering & Mathematics (ICSTEM-2024)" conducted by RRASE College of Engineering on 6<sup>th</sup> 7 th April 2024.
3. Dr. R.Ahila , Swetha.A Gayathri.M Thangapushpa.T,"A Robust Memory optimized and Trainable framework for Car License Plate detection and Recognition using CNN", National Conference on Advanced in Computer science and engineering conducted by SIMATS Engineering on 4.3.2023
4. Dr. R.Ahila ,Dinesh E,Mohammed Rashid M,Vignesh M,Yuvaraj.S,"Digital Voting System using Block Chain Technology" National Conference on Advanced in Computer science and engineering

conducted by SIMATS Engineering on 4.3.2023

5. R.Ahila, J.Ganesh (2011), "Optimal scheduling of Web Advertising", DRDO sponsored National Conference on Integrated Intelligent Computing, Dr.SivanthiAditanar College of Engineering Tiruchendur.
6. R.Ahila, S.V.Anandhi (2010), Dynamic Motion Estimation using Time Frequency Representations, National Conference on Data mining and Image Processing, SCAD College of Engineering and Technology.
7. R.Ahila, K.Manimala (2009), "Comparison of Datamining Techniques for Power Disturbances Classification" in the International Conference "International Conference on Sensors, Security, Software and Intelligent Systems (ISSIS-2009)" conducted by Coimbatore Institute of Technology, Coimbatore, 08-10 January 2009
8. R.Ahila, J.Ganesh (2009), "Maximizing Ad revenue by Optimal scheduling of Web Advertising", National Conference on Computing Technologies at SCAD college of Engineering, Cheranmahadevi
9. R.Ahila, K.Manimala (2008), "Comparison of feature extraction techniques for Power Quality Data Mining using ANN" in National Conference on Emerging trends in Information Communication Tehcnology, organised by GITAM University, Vishakapatnam
10. R.Ahila, K.Manimala (2008), "A comparison of Data Mining Techniques for Power Disturbances Classification", in National Conference on Emerging trends in Information Communication Tehcnology, organised by GITAM University, Vishakapatnam
11. R.Ahila, K.Manimala, (2007), "Power Quality Data Mining using Support Vector Machine", in National Conference titled First Indian Conference on Computational Intelligence and Information Security, organised by Thiagarajar College of Engineering, Madurai.

### Other Details

#### **PATENTS :**

1. Title of the invention : Smart Multimode Electric Cycle, The Patent Office Journal No. 24/2021 dated 11/06/2021 Page number :26245

#### **REVIEWED PAPERS:**

1. Ref. No.: ASOC-D-16-01055, Title: Multi-objective PSO based on adaptive uniform mutation and local learning strategy in multi-label feature selection, Applied Soft Computing, Elsevier publications
2. Ref. No.: NET-2016-0034, Title: A Multi - Class Classification Model with Particle Swarm Optimization and Self Organizing Particle Swarm Optimization for Intrusion Detection System, IET Networks.
3. Research Article 604325, Title: A Novel Feature Selection Approach based on Extreme Learning Machine and Coefficient of Variation, Computational Intelligence and Neuroscience
4. Ref. No.: IJEPES-D-14-00325, Title: Detection, Classification, and Location of Faults in Power Transmission Lines, International Journal of Electrical Power and Energy Systems
5. Ref. No.: TNNLS-2014-P-3333, Title: Landslide displacement prediction with uncertainty based on neural networks with random weights, IEEE Transactions on Neural Networks and Learning Systems.
6. Ref. No.: CVI-2013-0027.R1, Title: Automatic Target Recognition of SAR Images Based on Optimal Selection of Zernike Moments Features, IET Computer Vision.
7. Access-2017-04367 entitled "Experimental Study on Extreme Learning Machine Applications for Speech Enhancement" for IEEE Access.

8. Ref.No. SOCO-D-17-00403, Improving Convolutional Neural Networks classification accuracy with k-Nearest Neighbors for Soft Computing.
9. Ref. No. SOCO-D-17-00569, An Ensemble of Shapelet based Classifiers on Inter-class and Intra-class Imbalanced Multivariate Time Series at the Early Stage for Soft Computing.

**RESOURCE PERSON:**

- 1.Resource person in the Computer Training Courses for Arulmigu Subramaniya Swamy Thirukoil Employees conducted by Department of Computer Science and Engineering , Dr Sivanthi Aditanar College of Engineering Tiruchendur from 01-February-2010 to 05-February-2010.
- 2.Resource person in the Seminar on Neural Networks conducted by Department of Computer Science and Engineering , Dr Sivanthi Aditanar College of Engineering Tiruchendur on Feb 28,2013