


SRI SAI RAM ENGINEERING COLLEGE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

1	Dr.R.AZHAGUMURUGAN AMIE,ME,Ph.D.	
2	Designation	Professor & HoD
3	Area of Specialization	Applied Electronics
4	Experience	Teaching: 21 Years & 6 Months Industry; 6 Years
5.	No. of Worksop, FDP, Seminar Attended	Workshop: 30 FDP: 12 Seminar: 15
6.	Publications And Patents	International Conferences:15 International Journals:15 IEEE Digital Library: 10 IEEE Conferences: 10 Patents Published: 6
7.	Professional Membership	IEEE Membership- Senior Member-91208822 IEEE Power and Energy society -Senior Member Treasurer: IEEE PES Chapter MAS Section. Professional Member in: IEEE Young Professional IEEE Smart Cities IEEE Environmental Engineering Community IEEE Sensors Council IEEE Systems council IEEE council on Superconductivity IEEE SIGHT IEEE IOT Community IEEE Smart Cities Community IEEE Smart Grid Community IEEE Sustainable ICT Community IEEE Transportation Electrification Community Life Membership in 1. The Institution of Engineers in India-(IEI) 2. ISTE

8.	Research Guidance Fields	<ol style="list-style-type: none"> 1. Metamaterials 2. Electrical Machines 3. Electromagnetics 4. Electric Vehicles 5. Industrial Instrumentation 6. Smart Technologies
9.	Start-up	<ul style="list-style-type: none"> • AH Smart Power, (MSME, Govt. of India registered company) is an Sairam Techno incubated company in Sri Sairam Engineering College, Chennai, India. • AH Smart Power is an industrial & home automation company that primarily aims to research & develop smart consumer products based on advanced microchips & cloud technologies. • AH Smart Power provides a set of smart consumer products that include smart LED bulbs, smart flood lights, smart tube lights, smart fan and goes on. <p style="text-align: center;">https://www.ahsmartpower.com/</p>
10.	Consultancy	<ol style="list-style-type: none"> 1. <i>Chairman of Board & Chief Advisor</i> - Genik Research Institute. https://www.geniktech.com/people/azhagumurugan-ramamoorthy 2. Chairman and Author for the book of Basic Electrical Engineering (English & Tamil) under SCERT, Tamilnadu Textbooks. https://www.tntextbooks.in/p/12th-books.html

11	Honours and Awards	<ol style="list-style-type: none"> 1. Professional Achievement Award, IEEE Madras section 2. IGEN GREEN9 SDG AWARD 2020, 3. General Chair, IEEE International conference ICPECTS'18 4. IEEE Day Ambassadors for the past 6 Years from 2016 onwards. 5. IEEE PES Day Ambassadors for the past 6 Years from 2016 onwards. https://ieeepesday.org/2022-ambassadors/ 6. IEEE Smart cities ambassador 2022. https://smartcities.ieee.org/ambassadors/ambassadors-selected-for-2022 7. IEEE HAC Ambassadors for the year 2021. 8. Best Faculty Advisor Award 2021, from IEI. 9. Institute of scholars InSC awards 2021. 10. IEEE CSAC Ambassadors for the years 2022.
12.	Achievements	<ol style="list-style-type: none"> 1. IEEE Power and Energy Society Student Branch Advisor from 2014 onwards. https://edu.ieee.org/in-sairampes/committee/ 2. Applied computational electromagnetics USA Journal reviewer. 3. IEEE International conference review member- Australia, INTELEC 2017. 4. Presented article in Progress in Electromagnetics Research Symposium 2017 at NTU, Singapore. 5. Proctor for IEEEExtreme 11.0 Programming Competition 2017 and 2021. <p>Countries visited:</p> <ol style="list-style-type: none"> a. Singapore (NTU, New castle University) b. Indonesia (IEEE ICON EEI-2018) c. Dubai (Expo 2020) d. Malaysia-Kuching

13.	Other certifications	<ol style="list-style-type: none"> 1. Coursera 2. Udemy 3. Alison 4. ATAL
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Experience

Name of the Employer	Position Held	Period	
		From	To
Madha Engineering College, Chennai.	Lecturer	June 2001	May 2002
Sri Sai Ram Engineering College, Chennai.	Lecturer	2002	2007
Sri Sai Ram Engineering College, Chennai.	Senior Lecturer	2007	2009
Sri Sai Ram Engineering College, Chennai.	Assistant Professor Grade -I	2009	2016
Sri Sai Ram Engineering College, Chennai.	Associate Professor	2016	2019
Sri Sai Ram Engineering College, Chennai.	Professor	2019	Till date

International Conferences and Journals

1. Presented a paper titled as "Signal Integrity analysis of interconnects using eye diagram" in the International conference on Power, Energy, Information and Communication, at Athiparasakthi Engineering college, April 2012.
2. Presented a Paper Titled As 'Signal Degradation Due To Vias In MULTILAYER PCBs' In The International Conference On Information Systems And Computing (ICISC- 2013) , at Sri Sairam Engineering College.
3. Presented a paper titled as "Far-End crosstalk suppression using complementary splitting resonators in printed circuit boards" in the IEEE Applied Electromagnetic conference 2013 (AEMC 2013) Bhubaneswar, Orissa.
4. Presented a paper titled as "Arduino based output voltage control of bi-directional converter for HEV's" in the International conference on Trends in Technology for convergence 2015, AVS Engineering College, Salem.
5. Azhagumurugan. R 2014, 'A novel metamaterial structure to reduce far-end crosstalk in printed circuit boards', International Journal of Engineering and Technology, ISSN; 0975-4024, vol. 6, no. 2, pp. 588-591.
6. Presented a paper titled as "Guiding and control of fishermen boat using GPS" in the International conference on computation of Power, Energy Information and Communication, at Athiparasakthi Engineering college, April 2017.
7. Presented a paper titled as "Crosstalk analysis of PCBs and mitigation of crosstalk using CSRR structures" in the Progress in electromagnetics research symposium, 2017, NTU, Singapore.
8. Presented a paper titled as "Design and development of smart branched switch for home automation systems" in the International Conference on Smart Technology for Smart Nation, Smart Tech Con 2017 Bangalore.
9. Presented a paper titled as "IoT Enabled Coherent Detritus Management" in the

International conference on power, Energy, Control and Transmission systems (ICPECTS2018), Feb 22 and 23, 2018, at Sri Sai Ram Engineering College.

10. Presented a paper "Design and development of acoustic power transfer using infrasonic sound" in the International conference on power, Energy, Control and Transmission systems (ICPECTS2018), Feb22 and 23, 2018, at Sri Sai Ram Engineering College.
11. Dr.R. Azhagumurugan, S. Priyadharshini, C.S. Sharumathi, K. Malini and K. Lakshmipraba (2019) "Artificial speech aid for vocal impairment", Journal of International Pharmaceutical Research 46(1): 755-757.
12. Presented a paper "FEXT analysis and its mitigation using double slit complementary split ring resonators" in the International conference on Electrical Engineering and Informatics, Indonesia 2018.
13. Presented a paper "Energy auditing and power-factor improvement in HT industries" in the International Conference on science and innovative Engineering 2019, Jawahar engineering College, Chennai 24th March 2019.
14. Presented a paper "A review of multilevel inverter topologies for photovoltaic system" in the *International Virtual Conference on Advances in Communication, Machine Learning, Embedded with Internet of Things (IVC-ACME 2021), Kongu Engineering College and IVC-ACME 2021*.
15. Presented a paper "A hybrid approach estimates the real-time health state of a bearing by accelerated degradation tests, Machine learning" *2nd International Conference on Smart Technologies in Computing, Electrical and Electronics, ICSTCEE 2021 - Proceedings, 2021*.
16. Dr.R.Azhagumurugan et al "Towards a high precision in AMI-based smart meters and new technologies in the smart grid" in sustainable computing: informatics and

computing – A science direct Journal-2022.

17. Published and authored a book on "Hybrid Microgrid- ISLAND MODE OF HYBRID (AC/DC) MICROGRID USING RENEWABLE SOURCES"-Lambert Academic Publishing- ISBN- 978-620-4-74094-2.
18. Presented a paper "Predictive modelling for healthy marine life and ecosystem using ensemble techniques" in the Oceans 22 IEEE Conference held at IIT Madras in collaboration with IEEE Oceanic Engineering Society, Feb-22.
19. Presented a paper "Machine learning based classification and modelling of underwater acoustic communication" in the Oceans 22 IEEE Conference held at IIT Madras in collaboration with IEEE Oceanic Engineering Society, Feb-22.
20. Presented a paper "Machine learning based classification and modelling of underwater acoustic communication" in the Oceans 22 IEEE Conference held at IIT Madras in collaboration with IEEE Oceanic Engineering Society, Feb-22.
21. Presented an article "Flexible IOT based DSM-DG strategy adopted for benefit maximization in a power system network" in World Engineering Science & Technology Congress, ESTCON 22, Malaysia, Dec 1&2, 2022.
22. Presented an article "Design and development of PV powered intergraded dc-dc converter fed multilevel inverter for standalone application" in World Engineering, Science & Technology Congress, ESTCON 22, Malaysia, Dec 1&2, 2022.
23. Presented an article "Design and development of PV powered intergraded dc-dc converter fed multilevel inverter for standalone application" in World Engineering, Science & Technology Congress, ESTCON 22, Malaysia, Dec 1&2, 2022.
24. Presented an article "Design of an efficient led driver using non-ideal boost converter for lighting applications" in World Engineering, Science & Technology Congress, ESTCON 22, Malaysia, Dec 1&2, 2022.

25. Presented an article "Low frequency under water based acoustic modelling based on deep learning" in World Engineering, Science & Technology Congress, ESTCON 22, Malaysia, Dec 1&2, 2022.
26. Presented an article "A Framework of Medical Image Segmentation using Edge Stop Function based on Contour Model" in 2022 International Conference on Future Trends in Smart Communities (ICFTSC), Kuching, Sarawak, Malaysia, 2022.
27. Presented an article "A Framework of Medical Image Segmentation using Edge Stop Function based on Contour Model" in 2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2022.
28. Presented an article "Gradient-Driven Texture-Normalized Liver Tumor Detection Using Deep Learning" in 2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2022.
29. Presented an article "Smart Class-II Device with Integrated Medi-Tools" in 2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2022.
30. Presented an article "Twiddle Factor Normalization Based Radix-2k Factorization for Improved Spectral Efficiency in Subcarrier Mapping" in 2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2022.
31. Presented an article "Design and Implementation of Trapezoidal Antenna for UWB Applications" in 2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2022.
32. Presented an article "Parkinson's Disease Prediction Using Machine Learning Algorithm" in 2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2022.
33. Presented an article "High Speed and Low Power Modified Dynamic Double Tail Comparator on 90nm Technology using Cadence" in 2022 International Conference

- on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2022.
34. Presented an article "Speech Processing and Recognition of Sign Language using Tensor flow Classifier" in 2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2022.
 35. Presented an article "FSM Based DNA Assembly Using Systolic Array" in 2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2022.
 36. Presented an article "Arduino Microcontroller-Based Smart System for Bus Pass and Health Inspection in Educational Institutions" in Journal of Advances in Electrical Devices, Nov 9, 2023.
 37. Presented an article "OFDM and MIMO wireless communication performance measurement using enhanced selective mapping based partial transmit sequences" in Optik, Urban & Fischer Volume 272, 2023.

Achievements as a IEEE Power and Energy Society SBC Advisor.

1. Our IEEE Power & Energy Society Student Branch Chapter got selected for High Performing Student Branch Chapter Program (HPSBCP) in the years 2015,2016,2018, 2020 and 2021 awarded with a total worth of USD1700.
2. Our PES student branch chapter is selected by IEEE PES society for the Renewable Engineering in Schools Program 2016.
3. Received Professional achievement award from IEEE Madras section for the year 2016 and 2017.
4. Attended IEEE mini POCO held 28thFebruary 2016 Chennai, Sponsored by IEEE region 10 and IEEE Madras section.
5. Our student Mr. Kiran raj participated in 2nd IEEE PES 2016 Congress at Malaysia withfully sponsored by IEEE PES,USA.
6. Our student Mr. Shreyas Ramachandran participated in 3rd IEEE PES Congress at Brazil

2018 with fully sponsored by IEEE PES, USA.

7. Our PES member participated in the National level IEEE PES congress organized by Kerala section and won first prize in 2017.
8. Our PES member participated in the State level IEEE PES congress organized by Kongu Engineering College 2017.
9. Organized IEEE and IEEE Madras section technically Sponsored International Conference on Power, Energy, Control and Transmission Systems 2018 during February 2018.
10. IEEE enterprise award for the project "Capacitive Deionization based Water desalination System using an MPPT based Solar Charge Controller" in the year 2015.
11. Received US\$650 for Renewable energy advantages and its applications from IEEE Power and Energy Society, USA for the school student outreach program under the IEEE PES Member Driven Initiatives campaign.

Faculty Development Program, workshop and seminar attended

1. Two days' workshop on '*NEURAL NETWORKS AND FOZZY LOGIC*' at RMK Engineering college, in June 2003.
2. Workshop on 'High Speed Digital Design and Testing' organized by Department of Electronics Engineering, MIT, Anna University, Oct 2009.
3. Workshop on 'Electromagnetic Theory revisited' organized by Department of Electronics Engineering, MIT, Anna University, July 2009.
4. Mission 10X Program Organized by Wipro Technologies conducted at Sri Sairam Engineering College, in Nov 2009.
5. Two- w e e k ISTE workshop on 'Electronics' organized by IIT Bombay under Nation Mission on Education through ICT(MHRD) in July 2011.
6. Workshop on 'Advanced RF Design' using ADS at Anna University, during 4- 5 April 2013.
7. *Workshop on 'Electromagnetic Compatibility' organized by*

SAMEER Chennai, during 18-19 July 2013.

8. Workshop on `Electromagnetics` organized by IEEE AP&S Madras Chapter at SSN College of Engineering during Nov 11-13,2013.
9. Symposium on `Electromagnetics and Engineering Education` organized by IEEE AP&S Madras Chapter, IIT Madras and SSN College of Engineering at IIT Madras on 3 January 2014.
10. One week "*Microcontroller based system design*" a faculty development Training program, organized by Sri Sairam Institute of Technology in association with Centre for faculty development, Anna University, Chennai.2016.
11. Attended two-days' workshop on Design of electrical machines for vehicle application during 27 and 28th December 2018, at Sri Ramakrishna Engineering College, Coimbatore.
12. Attended two-days' workshop on "Electric vehicle Technology during 11 and 12th October 2019, at College of Engineering, Guindy, Anna university.
13. Attended ISTE sponsored 5 days faculty development program on 'Renewable energy systems' from 22nd July to 26th July 2019.