




# SAI RAM ENGINEERING COLLEGE

An Autonomous Institution | Affiliated to Anna University & Approved by AICTE, New Delhi  
Accredited by NBA and NAAC "A+" | BIS/EOMS ISO 21001 : 2018 Certified and NIRF ranked institution  
Sai Leo Nagar, West Tambaram, Chennai - 600 044. [www.sairam.edu.in](http://www.sairam.edu.in)



## Department of Electrical and Electronics Engineering

1. Name :	Dr.S.SIVARAJESWARI
	
2. Designation:	Associate Professor
3. Qualification :	M.E, Ph.D
4. Area of Specialization :	Power System Engineering
5. Experience :	Teaching: UG: 20
6. Publication :	
Journal	National : 0
	International : 21
Conference	National : 04
	International : 15
7. FDP	Attended: 17 Organized:5
8. Workshops	Attended: 15
9. Webinars	Attended: 6
10. Online courses	Attended: 15
11. Research Guidance:	NIL
12. Staff Achievements:	Achieved 100% result in the following Subjects:
	<ol style="list-style-type: none"> <li>Received Best young researcher award 2020 from IJMTST.</li> <li>Received Outstanding Creative Innovator in 2024</li> <li>Skill Rack mentor award,</li> </ol>

## EXPERIENCE

Experience in our Institution:						
Name of the Organization	Designation	Period		Nature of work	Experience	
		From	To		Years	Month
SMK FOMRA Institute Of Technology	Assistant Professor	10.08.2005	30.05.2012	Teaching	6	9
Sri Sriram Institute of Technology	Assistant Professor	JUNE 2012	JAN 2020	Teaching	7	6
Sri Sriram Institute of Technology	Associate Professor	JAN 2020	Till Date	Teaching	6	0
<b>Total Experience (as on 24.01.2026)</b>					<b>20.3 Years</b>	

**PhD THESIS TITLE: INVESTIGATIONS ON DEVELOPMENT OF EFFICIENT LUO CONVERTERS FOR DC MICRO GRID**

### BOOK CHAPTER CONTRIBUTION:

1. Dr.S.Raj, Ms.P.Padma, Dr.S.Sivarajeswari Costomer and product profitability analysis Management and Analytics and softwar Engineering Volume 1 Pages 189-194 Publisher ESN.
2. SIVARAJESWARI. S REAL WORLD IOT APPLICATIONS IN 2023 INTERNET OF THINGS Volume 1 Pages 55-72 Publisher ESN.

### FUNDED PROJECT:

1. Received fund of Rs. 10000/- from Tamil Nadu Skill Development Corporation (TN Skills) under the aegis of Special Programme Implementation Department, Government of Tamil Nadu Niral Thiruvizha 2.0 (Hackathon) for the project titled "SMART SEWAGE SENTINEL" for 2024-15 academic year.



### **PATENTS:**

1. "SOLAR POWERED OBJECT SENSING BASED PUBLIC LIGHTING FIXTURE ", IPR design number-373511-001 Grant date-02/11/2022.
2. 'Design and Development of High Efficient Luo converter with fuzzy logic controller for DC Micro grid' Application number -202141002310 A Publication Date-05.02.2021.
3. SMART SEWAGE SENTINEL WITH IOT Application number 202441071172 publication date-04-10-2024
4. Optimization of Integrated Hybrid Systems Using Model Predictive Controller Application number - 202441078853 A publication date 01.11.24
5. DESIGN, ANALYSIS AND IMPLEMENTATION OF MAYFLY- MANFIS ALGORITHM BASED NOVEL BL-CUK MODIFIED AC-DC CONVERTER FOR RENEWABLE ENERGY APPLICATIONS Application number- 202441068439 A publication date 01.11.24

**INDUSTRIAL TRAINING:** Completed industrial training in IPL, Thirumudivakkam from 15/6/2024 to 20/6/2024.

### **MEMBERSHIP IN PROFESSIONAL BODY:**

1. Member in ISTE, **LM-128068**
2. Senior Fellow Member in IEEE-97643250

### **GLOBAL RECOGNITION:**

1. Received Best Creative Innovator award for the year 2024 from Sri Sairam Engineering College, Chennai.
2. Received Certificate of Appreciation from CAMBRIDGE Institute of Technology mentoring a team in Smart India Hackathon 2022 from 25.08.2022 to 26.08.2022.
3. Received certificate of appreciation for mentor from NPTEL for Computer Networks and Internet Protocols Subject during Jan-Apr 2025.
4. Served as Session chair in International IEEE Conference ICPECTS-2024.
5. Received Faculty mentor certificate for guiding project in Niral Thiruvizha-2024 from Tamil Nadu Skill Development Corporation.
6. Received certificate of appreciation for top performing mentor from NPTEL for Introduction to Internet of Things Subject during JUL-DEC 2024.
7. Received NPTEL STAR Certificates as NPTEL Domain Scholars and NPTEL Motivated Learners for JAN-APRIL 2025.
8. Received NPTEL Discipline Star for JAN-APRIL 2024.

### **Resource Person:**

1. Delivered Lecture On Electrical Machines-I In The FDP Conducted By Valliammai Engineering College On 8th May 2019.
2. REVIEWER OF PAPERS For The 2022 INTERNATIONAL CONFERENCE ON COMMUNICATION, COMPUTING & INTERNET OF THINGS (IC3IoT-2022) Held On 10<sup>th</sup> & 11th March 2022.

3.Served As Track Jury For An International Conference ICPECTS2024 Organized By Sri Sairam Engineering College, Chennai On 9th Oct 2024.

4.REVIEWER OF Journal WILEY

## RESEARCH PUBLICATIONS:

### INTERNATIONAL JOURNAL:

1. KC Suresh, R Prabha, N Hemavathy, S Sivarajeswari, D Gokulakrishnan "A machine learning approach for human breath diagnosis with soft sensors" in **International Journal of Computers and Electrical Engineering** Volume 100, May 2022, 107945.
2. Sivarajeswari.S, Kirubakaran.D "Design and Development of Efficient Luo Converters for DC micro grid" in **International Journal of Electrical Engineering Education**. ISSN: ISSN:2050-4578 impact factor 0.593. DOI:10.11/002072091945152, May 2019.
3. S Sathish Kumar, R Ramkumar, S Sivarajeswari, D Ramya, T Subburaj, Martin Sankoh "Performance Enhancement of a Three Phase Boost-Cascaded Fifteen Level Inverter Using the PI Controller in **International Journal of Mathematical Problems in Engineering** Volume 2022 | Article ID 3888571 | <https://doi.org/10.1155/2022/3888571>
4. R Prabha, P Anandan, S Sivarajeswari, C Saravanakumar, D Vijendra Babu, "Design of an automated recurrent neural network for emotional intelligence using deep neural networks in IEEE Explore <https://doi.org/10.1109/ICSSIT53264.2022.9716420>.
5. V Valarmathi, T Sathya, J Nirmala, S Sivarajeswari, Raj M Prasanth, V Srihari "Design and Implementation of Secured Contactless Doorbell using IOT" in IEEE Explore <https://doi.org/10.1109/ICCPC55978.2022.10072073>.
6. L Vijayaraja, S Sivarajeswari, R Dhanasekar, R Premkumar, D Tamizhmalar, Rupa Kesavan "Design of Thirteen Level Inverter suitable for Solar Farms" in IEEE Explore <https://doi.org/10.1109/ICCCI54379.2022.9741026>.
7. S Sivarajeswari, S Sai Isha, K Vanitha, S Reshma, G Magendran, B Hari Haran "Pipeline Climbing Robot for Scaling of Gas Leakage Detection" in IEEE Explore <https://doi.org/10.1109/ICICCS56967.2023.10142557>
8. S.Sivarajeswari, C.Perazhagan, Senthamizh Arasan "DCMICRO GRID FOR A SMART RAILWAY STATION INTEGRATING RENEWABLE SOURCES in " **International Journal of Novel Research and Development**" Volume 8, Issue 3 March 2023 ,ISSN:2456-4184.
9. Dr.S. Sivarajeswari , Mrs.E.Maheswari ,Dr.M.Jagadeesh Kumar "Power Generation From Pressure And Amplified Using Ky Converter" in Elementary Education online. ISSN: 1305-3515 <http://dx.doi.org/10.17051/ilkonline.2021.01.510>.
10. E.Maheswari\* , Dr.V.Balaji , Dr.S.Sivarajeswari "Animal Vehicle Collision Avoidance Using Image Processing" in Elementary Education online. ISSN: 1305-3515 doi: 10.17051/ilkonline.2020.03.735603.
11. S.Sivarajeswari, Dr.D.Kirubakaran "NOVEL TECHNIQUE ON IMPROVEMENT OF DYNAMIC PERFORMANCE FOR POSITIVE OUTPUT TRIPLE LIFT LUO CONVERTER" in International Journal of Advanced Engineering Technology Vol 7 Issue 1 Jan-March page-818-821, 2016.

12. S.Sivarajeswari, R. Anitha, S.Komalachitra "LTE Wireless Access For Monitoring of Energy Distribution In The Smart Grid" in Global Journal of Advanced Engineering Technologies Vol 5 Issue 3 page-296-300, 2016.
13. Anitha.R Komalachitra.S,Sivarajeswari.S "SMART ELECTRIC TRAIN USING ZIGBEE TRANSMITTER AND RECEIVER" in International Journal of Scientific Engineering and Applied Science Technologies Vol 1 Issue 3 page-207-209, 2015.
14. Dr. D. KIRUBAKARAN,S. SIVARAJESWARI "APPLICATION OF POSITIVE OUTPUT TRIPLE LIFT LUO CONVERTER FOR PHOTO VOLTAIC SYSTEM USING FUZZY LOGIC CONTROLLER" in International Journal of science engineering and technology Vol 2 Issue 8 page-27-31, 2014.
15. TK Gawali, AH Albert, S Sivarajeswari, P Manimekala, G Rohini, Machine Learning-Based Credit Card Fraud Detection: A Comparative Study Using Logistic Regression, SVM, and KNN International Journal of Environmental Sciences 11 (8s), 375-380
16. S Sivarajeswari, R Sarvesh, V Balaji, M Sunilkumar PV based single input multi output converter for residential loads 2024 International Conference on Power, Energy, Control and Transmission
17. T Yuvaraj, D Lakshmi, S Sivarajeswari, RE Raj, B P, D Buvana Application of Salp Swarm Algorithm for optimal placement of DSTATCOM in the radial distribution networks AIP Conference Proceedings 3044 (1), 050002
18. S Sivarajeswari, AA Almulla, M Sellab Hamza, AA Ali, MA Hussein, Design of a Method for Analyzing Power Systems: Mathematical Models of Electric Vehicles and Distributed Generators Electric Power Components and Systems, 1-14
19. S Sivarajeswari, S Hublikar, Y Kumar, D Shobana, A Deepak, M Oliva Multiple level inverter scheme for improved power quality of renewable energy solar panel Int J Intell Syst Appl Eng 12, 98-105
20. SN S.SIVARAJESWARI, Roshan Raj, Dhanush Kumar Undergroud Cable fault Detection using IOT and GPS Technology Emerging Technologies in Power Electronics for Green and Renewable Energy
21. D Sivarajeswari DC micro grid for a smart railway station integrating renewable sources International Journal of Novel Research and Development 8 (3), d734-d738





# SAI RAM ENGINEERING COLLEGE

An Autonomous Institution | Affiliated to Anna University & Approved by AICTE, New Delhi  
Accredited by NBA and NAAC "A+" | BIS/EOMS ISO 21001 : 2018 Certified and NIRF ranked institution  
Sai Leo Nagar, West Tambaram, Chennai - 600 044. [www.sairam.edu.in](http://www.sairam.edu.in)



## International Conference

1. Sivarajeswari.S, Kirubakaran.D “Design and Development of Positive Output Triple Lift Luo Converter for Photo Voltaic System Using Fuzzy Logic Controller” presented in International conference on latest scientific research and technology in Techno publication on 13th september 2014.
2. S.Sivarajeswari, “Novel technique on Improvement of dynamic performance for positive output triple lift Luo converter” presented in International Conference on Recent Trends in Engineering and Technology on 28<sup>th</sup> April 2016 at St.josephs Institute of Technology.
3. R Prabha, P Anandan, S Sivarajeswari, C Saravanakumar, D Vijendra Babu, “Design of an automated recurrent neural network for emotional intelligence using deep neural networks” presented in 4th international conference on smart systems and inventive technology (ICSSIT) on 20<sup>th</sup> January 2022.
4. L Vijayaraja, S Sivarajeswari, R Dhanasekar, R Premkumar, D Tamizhmalar, Rupa Kesavan “Design of Thirteen Level Inverter suitable for Solar Farms” presented in International Conference on Computer Communication and Informatics on 25<sup>th</sup> January 2022.
5. Sri Nishanth S.SIVARAJESWARI, Roshan Raj, Dhanush Kumar “Undergroud Cable fault Detection using IOT and GPS Technology” presented in Emerging Technologies in Power Electronics for Green and Renewable Energy Systems on 5<sup>th</sup> May 2023 at Bharath University.
6. S.Sivarajeswari, “Application of salp swarm algorithm for optimal placement of DSTATCOM in the radial distribution networks” presented in INTERNATIONAL CONFERENCE ON SMART GRID & ELECTRIC VEHICLE on 3<sup>rd</sup> April 2023 at Hindustan University.
7. V Valarmathi, T Sathya, J Nirmala, S Sivarajeswari, Raj M Prasanth, V Srihari “Design and Implementation of Secured Contactless Doorbell using IOT ” presented in International Conference on Computer, Power and Communications (ICCP) at Sri Sairam Institute of Technology.
8. Dr.S.Sivarajeswari Dr.Jeyalakshmi “Attitudinal changes due to unanticipated transition to remote work” presented in International conference on sustainability and equity, theme: Digital society on 2020.
9. Dr.S.Sivarajeswari “IOT based Ambulance Monitoring and Traffic Control” presented in International Conference on innovative solution in electrical engineering science
10. S.Sivarajeswari “Allocation of Capacitor in Radial Distribution System using Marine Predator Algorithm” presented in INTERNATIONAL CONFERENCE ON SMART GRID & ELECTRIC VEHICLE on 3<sup>rd</sup> April 2023 at Hindustan University.
11. S Sivarajeswari, S Sai Isha, K Vanitha, S Reshma, G Magendran, B Hari Haran “Pipeline Climbing Robot for Scaling of Gas Leakage Detection” presented in International Conference on Intelligent Computing and Control Systems on 17<sup>th</sup> MAY 2023.
12. S Sivarajeswari, R Sarvesh, V Balaji, M Sunilkumar PV based single input multi output converter for residential loads 2024 International Conference on Power, Energy, Control and Transmission



# SAI RAM ENGINEERING COLLEGE

An Autonomous Institution | Affiliated to Anna University & Approved by AICTE, New Delhi  
Accredited by NBA and NAAC "A+" | BIS/EOMS ISO 21001 : 2018 Certified and NIRF ranked institution  
Sai Leo Nagar, West Tambaram, Chennai - 600 044. [www.sairam.edu.in](http://www.sairam.edu.in)



13. T Yuvaraj, D Lakshmi, S Sivarajeswari, RE Raj, B P, D Buvana Application of Salp Swarm Algorithm for optimal placement of DSTATCOM in the radial distribution networks AIP Conference Proceedings 3044 (1), 050002
14. S Sivarajeswari, SP Ranjana, E Swathi, S Kandasami Smart Sewage Sentinel 2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)
15. S.Sivarajeswari, Arun Improved Interleaved High gain super-lift converter with high efficiency for renewable energy application 4th International conference on recent trends in Engineering, Technology and Management 2024

## National Conference:

1. 1. National Conference on Innovative Solutions in Electrical Engineering Science, Titled "Automatic Railway Smart Mobile Platform Bridge Using Transreceiver" on 22<sup>nd</sup> March 2019.
2. National Conference on signal and Image processing, titled "Variable Speed wind Turbine using Fuzzy based MPPT with grid connected PMSG". On 9<sup>th</sup> April 2010.
3. National Conference on Innovative Solutions on Electrical Engineering titled "Power Generation from Pressure and Sound and Amplified using KY Converter" on 21<sup>st</sup> April 2021.
4. National Conference on signal and Image processing, titled "Application Of Converter For PV System Using PID Controller". On 9<sup>th</sup> April 2010.

## FACULTY DEVELOPMENT PROGRAM ATTENDED

- Attended a Faculty Development Training Programme organized on Transmission and Distribution in GKM College of Engineering and technology on 24<sup>th</sup> May 2010 to 30<sup>th</sup> May 2010.
- Attended a Faculty Development Training Programme organized on Application of FACTS in Power Electronics and Power System in Sri sairam Engineering College on 27<sup>th</sup> february 2013.
- Attended a Faculty Development Training Programme organized by ISTE on Electromagnetic field Theory and Transmission Lines in Sri sairam Institute of Technology on 25 & 26 June 2015.
- Attended a Faculty Development Training Programme approved by Anna University on High Voltage Engineering in St.Joseph's Institute of Technology from 1.6.16 to 8.6.16.
- Attended a Faculty Development Training Programme organized on Electromagnetic Theory and control systems in Sree Sastha Institute of Engineering and Technology from 19.6.17 to 21.6.2017
- Attended a FDP on "Power electronics for renewable energy systems" at Tagore Engineering College from 18.1.18 to 21.1.18
- Attended a FDP on Advance power electronics and control in online course NPTEL from jan to march 2019.
- Attended a FDP on DC micro grid in online course NPTEL from July to sep 2019.

- Attended a ATAL FDP on power electronic converter and controller for EV and smart grid at IIITDM Kancheepuram from 18.12.2019 to 22.12.19.
- Attended FDP on robotic process automation at jeppiaar institute of technology from 4.5.20 to 6.5.2020.
- Attended FDP on technological advancement in power system control, power controllers, Drives and E-vehicles at Dr.N.G.P institute of technology from 27.4.2020 to 1.5.2020
- Attended FDP on recent advancement in HIGH VOLTAGE ENGINEERING at SRM VALLIAMMAI ENGINEERING COLLEGE from 2.11.2020 to 7.11.2020.
- Attended FDP on recent advancement in HIGH VOLTAGE ENGINEERING at SRM VALLIAMMAI ENGINEERING COLLEGE from 3.03.2021 to 9.03.2021.
- Attended FDP on NITTT Mentor training from 5.7.2021 to 9.7.2021.
- FDP on Introduction to IOT in NPTEL 2023
- FDP on "Integration of Renewable Energy Technology for Smart Ships and Hands-on Training in Solar System Design Using Simulation Software" from 2022-10-31-2022-11-05 to 2022-11-07-2022-11-11 at ACADEMY OF MARITIME EDUCATION AND TRAINING DEEMED TO BE UNIVERSITY
- 5-day Online FDP on the theme “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education (AICTE) from 20th February to 24th February 2023.

#### WORKSHOP:-

- Attended a Workshop on T.Q.M in SMK FOMRA Institute of Technology on 15th November 2006.
- Attended a National seminar on Power Quality Issues Problems and Solutions in SMK FOMRA Institute of Technology on 21st December 2012.
- Attended International workshop on alternative energy in SMK Fomra institute of technology on 25<sup>th</sup> February 2012.
- Attended a National Seminar on current Trends and Future Role of Renewable Energy in Sri Sai Ram Engineering College on 8th and 9th October 2013.
- Attended workshop on Recent Trends in Renewable Energy in Sri Sairam institute of technology on 31<sup>st</sup> march 2015.
- Attended workshop on how to write research papers for refereed journals in Sri Sairam institute of technology on 24<sup>th</sup> January 2015.
- Attended National level Workshop on Glimpses on effective Research and proposal Writing in at St.Joseph's Institute of technology on 20th October 2016.
- Attended a workshop on “Design and implementation of grid integrated solar PV System with research perspective” at St.Joseph's Institute of technology from 24.11.17 to 27.11.17.
- Attended workshop on “Conceptual practices of Iot& AI for engineering applications” at St.Joseph's Institute of technology on 4.5.18 and 5.5.18.
- Attended a workshop on Ideation and Proposal Formulation Workshop at IIT Madras on 9th November 2018.
- Attended workshop on Industry 4.0 at St.Joseph's Institute of technology from 19.11.2018 to 20.11.2018.
- Attended webinar on power system operation and control with MATLAB simulations at CK college of engineering and technology from 21.5.2020 to 23.5.2020.
- Attended webinar on The power of teacher conducted by ICT academy on 4.5.2020





- Attended Immersive Workshop on Design the Thinking from 12.5.2023 to 13.5.2023.
- Attended FDP on COMPUTER HARDWARE & NETWORKING from 13.03.2023 to 14.04.2023 (96 hrs.) at MSME-TDC, EFC-New Delhi

### **SKILL DEVELOPMENT COURSES DONE:**

1. Completed the Module1\_Orientation Towards Technical Education and Curriculum Aspects during Aug'2022 conducted by National Initiative for technical Teachers Training.
2. Completed the Module2\_Professional Ethics & Sustainability during Mar'2023 conducted by National Initiative for technical Teachers Training.
3. Completed the Module3\_Communication Skills, Modes & Knowledge Dissemination during Aug'2022 conducted by National Initiative for technical Teachers Training.
4. Completed the Module4\_Instructional Planning and Delivery during Mar'2023 conducted by National Initiative for technical Teachers Training.
5. Completed the Module5\_Technology Enabled Learning & Life Long Self Learning during Aug'2022 conducted by National Initiative for technical Teachers Training.
6. Completed the Module6\_StudentAssessment and Evaluation duringMar'2023 conducted by National Initiative for technical Teachers Training.
7. Completed the Module 7\_Creative Problem Solving , Innovation and Meaningful R &D during Oct'2021 conducted by National Initiative for technical Teachers Training.
8. Completed the Module 8\_Institutional Management & Administrative Procedures during Mar'2023 conducted by National Initiative for technical Teachers Training.

### **PROGRAM ORGANIZED:**

1. Organized Two national Symposium at Sri Sairam Institute of Technology
2. Organized Guest Lecture and Workshop.
3. Organized six days FDTP on Advansed Technology in Electrical Engineering Research at Sri Sairam Institute of Technology.
4. Organized 5 DAYS ONLINE FDP ON ADVANCED POWER ELECTRONICS AND INTELLIGENT CONTROL FOR SUSTAINABLE ELECTRIC MOBILITY AND RENEWABLE ENERGY SYSTEMS
5. Organized FIVE DAYS ONLINE FDP ON ADVANCED TECHNOLOGIES IN ELECTRICAL ENGINEERING RESEARCH 01-08-2022 to 05-08-2022