

Dr.B. RAJAPANDIAN



SRI SAIRAM ENGINEERING COLLEGE

Department of Electronics & Instrumentation Engineering

Designation: Associate Professor

Qualification : ME(PhD)

Area of Specialization : Power Electronics And Industrial drives

Experience :

Teaching : UG: 19.11 years -till date

Industry : 2.3years

No. of workshop / Conferences / FDP attended :

Patent: 03

Journal: 03

Workshop:08

Conferences:10

FDP:12

Project Guidance: Guided 18 UG projects till date

General :

IEEE Senior Member

Life Member in **ISOI**(Instrument Society Of India)

Life Member in **ISTE**(Indian Society for Technical Education)

Placement Co-ordinator :From Jan2009 to till date

ATAL Mentor

Staff Achievements:

Received a Best Paper Award “ **Smart Solid and Wet Waste Management System**” in 3rd International Conference on Power, Energy, Control and Transmission Systems, ICPECTS 2022

Produced 100% result in Industrial Instrumentation-II, Control System, Digital logic circuits, Embedded system, Industrial data Networks and Air pollution & control Engg

Experience Details:

Sri Sairam Engineering College

Associate Professor-from2017to till date

}17.3 years

Assistant Professor- from 2009 to 2017

Sri Krishna Engineering College

Lecturer – from April 2006 to December 2008 -2.8 years

Srinar Communications Pvt.Ltd

Production Engineer October 2003 January2006 -2.3 years

Theory Subjects Handled:

- PowerElectronics
- Control Systems
- Digital logicCircuits
- Circuittheory
- Industrial Electronics
- Measurements andInstrument

- Electrical Circuits
- Electrical Machines
- Electrical Measurements
- Logic & Distributed Control System
- Circuit Theory
- BEIE
- BEEE
- Electromagnetic theory
- Electro Magnetic Field
- Embedded systems
- Applied soft computing
- Industrial Instrumentation-II
- Instrumentation in petrochemical Industries
- Industrial data networks
- Microprocessors and Microcontrollers
- Basic Electrical And Instrumentation Engineering
- Air Pollution & Control Engineering

UG projects Guided:

- Smart Sewage Management System from February 2026-April 2026
- Smart Safety device from February 2025-April 2025
- IoT based smart hybrid motor bike from February 2025-April 2025
- Smart Waste Segregator from February 2024 –April 2024
- Animal Wellbeing and Health Monitoring System February 2023-April 2023
- EV smart charging system February 2022-April 2022
- An improved h5 topology with load test on single phase induction motor February 2021-April 2021
- Smart diagnosis of disease using machine learning February 2021- April 2021
- Design and development of high accuracy capacitive sensor and low power embedded system for bearing strength Measurement February 2020- April 2020

- Smart Rescue System for Cab Drivers February 2019-April 2019
- Automatic Smart Tank Cleaning February 2018 to April 2018
- A Novel approach as an aid for blind, deaf and dumb people February 2017 to April 2017
- Performance analysis of wind energy conversion system using current source converter and medium frequency transformer February 2017 to April 2017
- Smart ocean system February 2016 to April 2016
- Smart helmet February 2016 to April 2016
- Maximum power point tracking using incremental conductance technique in solar power applications February 2015 to April 2015
- Smart grid distribution network using wireless communication February 2015 to April 2015
- Reliability Modelling of energy efficient wireless sensor networks February 2014 to April 2014
- Automation of cadaver and forensic information management in mortuaries using PLC-SCADA February 2013 to April 2013
- Gesture recognition for physical y challenged using MEMS technology February 2012 to April 2012
- Tuning of controller for a process with large dead-time February 2011 to April 2011

Workshop/Conferences/FDP: (List)

Workshop:

Date	Venue	Title	Duration
6.9.2011 & 7.9.2011	Sri Sairam Engineering college	Industrial Automation by Prolific Systems & Tech Pvt Ltd, Chennai	2 days
19.01.12	Sri Sairam Engineering college	Art Of Journal & Thesis Writing	One day

17.02.12&18.02.12	SSN College Of Engg	Lab View and its applications	2 days
28.02.12&29.02.12	Sri Sairam Engineering college	Microcontroller based embedded system design by Hex source Technologies	2 days
8.1.2013 - 10.1.2013	Sri Sairam Engineering college	(Entrepreneurship Summit-2013) Jenius Espirits Devovation vers L'espirit D'enterprise	3 days
23.4.2017	Sathyabama University	Introduction to Research	One day
23.7.2018 to 25.7.2018	Sri Sairam Engineering College	Process Automation Using MATLAB conducted by Intellectz Tech 4	3 days
12.11.2018 to 14.11.2018	Sri Sairam Engineering College	Rapid PrototypingIoT & Embedded System Design in Colloboration with M/S Digital Shark Technology Pvt.Ltd, Bengaluru under Texas Instruments University Programme	3 days
28.4.2020 to	MHRD-IIC	IIC Online	During

22.6.2020		Sessions conducted by Institution's Innovation Council (IIC) of MHRD's Innovation Cell, New Delhi to promote Innovation, IPR, Entrepreneurship, and Start-ups among HEIs .	COVID-19 nationwide lockdown.
26.7.2020 & 27.7.2020	SRM Institute of Science & Technology(Ramapuram Campus)-EEE DEPT	Online workshop on "Virtual Conduct of Electrical Machines Laboratory"	2 days

Conferences & Journal Publications

CONFERENCES

Date	Venue	Title	Duration
6.1.2011 to 8.1.2011	CEERI, CSIR Madras complex, Chennai-600113	(TIMA-2011) International Conference: Trends in Industrial Measurements	3 Days

		&Automation	
8.10.2013 to 9.10.13	Sri Sairam Engineering College	AICTE Sponsored National seminar on Current trends and future role of renewable energy	2 days
13.3.2014	Sri Sairam Engineering College	(NCICSD-2014) Second National Conference on Intelligent control and system dynamics	One day(Convenor)
30.03.2014	IT society of India	Presented a paper titled on“ Enhancing the reliability of WSN utilizing deterministic pattern based sensor deployments “International conference on Electrical, Electronics and Computer Science(ICEECS201 4)	One day
4.5.2017 &5.5.17	St. Peter’s College of Engineering and Technology	Presented a paper titled on-“A novel approach as an aid for blind, deaf and dumb people” IEEE 3 rd International Conference(ICSSS- 2017) on Sensing, signal processing and security	Two days

21.3.2018 & 22.3.2018	S.A.Engineering College	Presented a paper titled on-“ Automatic Water reading and smart cleaning of water tank” IEEE 7 th International Conference(ICICES-2018) on Informatics & Computing In Engineering Systems)	Two Days
12.4.2018 & 13.4.2018	S.A. Engineering College	Presented a paper titled on-“ Geo location based personal guard” IEEE International Conference(ICPHON-2018) on Photonics and High Speed Optical Networks)	Two Days
11.2.2019	R.M.K College of Engineering and Technology, Puduvoyal, Thiruvallur	Presented a paper titled “IRIS Scanned Electronic Voting Machine” in the “Eighth National Conference on Recent Advancements in Signal Processing and Communication (NCRASPC-2019)”	One day
14.3.2019 & 15.3.2019	Jeppiaar Engineering College, Chennai	Presented a paper titled “Smart Dust Bin” in 5 th International Conference on Science Technology Engineering & Mathematics (ICONSTEM'19), Probing Artificial Intelligence Techniques & Research in IoT(PATRIOT)	2 days
19.3.19 & 20.3.2019	Dr. M.G.R Educational and Research Institute, Chennai	Smart Rescue System for Cab Drivers and won First prize in TIME-2019- A National Conference on Unmanned Vehicles and Robotics	2 days
2021	Sri Sairam Engineering College	Multi-Way Switching System Using IoT, <i>Proceedings of the 2021 4th International Conference on Computing and Communications Technologies, ICCCT 2021</i>	2 Days
2022	Easwar college of Engineering	Design and Analysis of SEPIC Converter Controller with Filter for BLDC Applications, <i>8th International</i>	2 days

	coimbatore	<i>Conference on Advanced Computing and Communication Systems, ICACCS 2022</i>	
2022	Easwar college of Engineering coimbatore	Smart Diagnosis of Disease Using Machine Learning <i>8th International Conference on Advanced Computing and Communication Systems, ICACCS 2022</i>	2 days
2022	Sri Sairam Engineering College	Smart Solid and Wet Waste Management System <i>3rd International Conference on Power, Energy, Control and Transmission Systems, ICPECTS 2022</i>	2 days
2023		Sustainable Burlap Hygiene Pads <i>2023 Intelligent Computing and Control for Engineering and Business Systems Iccebs 2023</i>	
		Portable DC Mixer Grinder <i>2023 Intelligent Computing and Control for Engineering and Business Systems Iccebs 2023</i>	
		Smart Safety Device <i>2023 Intelligent Computing and Control for Engineering and Business Systems Iccebs 2023</i>	
		Water Purifier with Clogged Copper Filter <i>2023 Intelligent Computing and Control for Engineering and Business Systems Iccebs 2023</i>	
		IoT Based Smart Biometric Safety and Security in Modern Motorbikes <i>2023 Intelligent Computing and Control for Engineering and Business Systems Iccebs 2023</i> Smart Waste Segregator <i>2023 Intelligent Computing and Control for Engineering and Business Systems Iccebs 2023</i>	
2024	Sri Sairam Engineering College	Injection Molding Hot Runner Machine <i>4th International Conference on Power Energy Control and Transmission Systems Harnessing Power and Energy for an Affordable Electrification of India Iccebs 2024,</i>	2 days

		Smart Sewage Management System 4th International Conference on Power Energy Control and Transmission Systems Harnessing Power and Energyfor an Affordable Electrification of India Icpects 2024,	
		Smart Accident Prevention at Hairpin Bends Using Sensor-Based System 4th International Conference on Power Energy Control and Transmission Systems Harnessing Power and Energyfor an Affordable Electrification of India Icpects 2024,	
		Biogas Monitoring System 4th International Conference on Power Energy Control and Transmission Systems Harnessing Power and Energyfor an Affordable Electrification of India Icpects 2024,	
		Electrolyte Enriched IV Bottle 4th International Conference on Power Energy Control and Transmission Systems Harnessing Power and Energyfor an Affordable Electrification of India Icpects 2024,	
2024		Smart Sensors for Real-Time Monitoring of Animal Health and Well-Being 4th International Conference on Power Energy Control and Transmission Systems Harnessing Power and Energyfor an Affordable Electrification of India Icpects 2024,	
2025	Sri Sairam Engineering College	Wastewater Treatment in Photocatalysis Using Semiconducting Method 2025 International Conference on Computing and Communication Technologies Iccct 2025, 2025	

JOURNAL PUBLICATIONS

Published a Paper "**Smart dustbin**" in International Journal of Engineering and Advanced Technology (IJEAT)

Volume.8 August 2019

"**A research on electronic component wrecker using electro-magnetic pulse (EMP)**" in International Journal of Engineering and Advanced Technology (IJEAT)

Volume.8 August 2019

Published a Paper "**Evaluation of DC-DC Converter using Renewable energy Sources**" in International Journal of Power Electronics and Drive Systems (IJPEDS)

Vol.11, No.4, December 2020, ISSN:2088-8694, DOI"10.11591/ijpeds.v.11,i4.pp51-54

Published a paper "**Analyzing Photovoltaic Grid-Connected H5 Inverter With Artificial Intelligence For Induction Motor Load Testing And Evaluation**" in Journal of Electrical systems (JES) Vol.No.20-3(2024) ISSN 1112-5209

List of Patents

1. Smart driver guidance system for Indian roads-published on 10.07.2020
2. Automated safety system for driver and pillion rider in two wheeler published on 09.10.2020
3. Adjustable stand for computing device –Design patent granted on 05.10.2021
4. Early plant disease detection in agriculture by integration IoT ,machine learning and deep learning techniques published on 04.10.2024
5. Smart waste Segregator published on 13.9.2024
6. IoT Based Smart Biometric Safety And Security In Modern Motorbikes published on 01.03.2024
7. Machine learning based approaches for quality disturbance detection in EV charging with grid-photovoltaic systems published on 14.03.2025
8. Machine Learning –driven Automated faculty feedback collection system for continuous quality enhancement in higher education published on 02.01.2026
9. Machine learning- enabled IoT smart home automation system for real time energy optimization and power consumption reduction published on 02.01.2026

FDP:

Date	Venue	Title	Duration
6.9.2008	Karpaga Vinayaga College of Engg &Tech	Power System & Energy Auditing	One Day
April 2009	Sri Sairam Engg College	AICTE Sponsored FDP:Instructional design & delivery	2 days
27.01.2011	Sri Sairam Engg College	Power flow solutions & Demo on CYME Power Engg Software	One day
16.02.12 to 22.02.12	Sri Sairam Engg College	Work life balance for Engg & Management faculty-AICTE Sponsored	One Week
7.03.12	Sri Sairam Engg College	MATLAB applications in Electrical Engg	One day
27.02.2013	Sri Sairam Engg College	Applications of FACTS in Power electronics &Power system	Oneday

8.12.2014 to 15.12.14	RRASE college of Engineering (center for faculty development-Anna University)	Control system Engineering	One Week
1/6/2015- 8/6/2015	Sri Sairam Engineering College	Power Electronics	7 days
20.06.16-27.06.16	Sri Sai Ram Institute of Technology	EE6008- Microcontroller Based System Design	7days
08.11.17- 11.11.17	Rajalakshmi Institute of Technology	Basic Electrical. Electronics, Measurement and Instrumentation Engineering.	4 days
3.12.2018 to 15.12.2018	Sri Sairam Engineering College	Transmission & Distribution	Two weeks
27.3.2019 &28.3.2019	Annai Therasa Arts & Science College, Thirukazhukundram	Creative Thinking” conducted by ICT Academy	2 days
14.4.2020 to 18.4.2020	NITTR- CHANDIGARH-ECE DEPT	Faculty Development Programme on Latest Wireless and Computing Technologies	One week
20.4.2020 to 24.4.2020	NITTR- CHANDIGARH- Curriculum Development Centre Dept	Faculty Development Programme on Neural Network and CNN	One week

18.05.2020 to 22.05.2020	LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING- Andhra Pradesh-EEE DEPT	Five - Day Online FDP on “Integration of Renewable Energy Systems- Research Tools / Industrial Perspective”	5 days
26.5.2020 TO 30.5.2020	VELTECH HIGHTECH,CHENNAI	5 days FDP on” Emerging trends in Electric Vehicle,Lighting & Automation”	5 days
3.6.2020 to 7.6.2020	VEMU INSTITUTE OF TECHNOLOGY- Andhra Pradesh-EEE DEPT	One Week National Level Online Faculty Development Programme on “Recent Advances In Electrical Engineering (RAEE- 2020) ”	One week
4.6.2020 & 5.6.2020	Department of Electronics and Communication Engineering of KPRIET	online FDP on “Internet of Vehicles”	2 days
16.6.2020 to 20.6.2020	R.M.D.ENGINEERING College, Chennai-EIE DEPT	Five days Online FDP on “Insights into cutting Edge Technologies”	5 days
18.6.2020 to 20.6.2020	Sri Sairam Engg College-ECE Dept	Get ready for AI with MATLAB and Simulink	3 days
20.6.2020	ITM Business School,	Online FDP on”How to use Google class	One day

	Chennai	like a Pro”	
22.6.2020 to 26.6.2020	Kongunadu College of Engg & Technology-Trichy Angappa College of Arts & Science- Coimbatore- Internal Quality Assurance Cell,ACAS.	Virtual FDP on “Research Opportunities & Challenges of Electrical Engg” Five Days Faculty Development Programme on “E- Content Development”	5 days 5 days
24.6.2020	ITM Business School, Chennai	Management development program on” Improving managerial Effectiveness using coloured brain concept”	One day
13.7.2020 to 18.7.2020	Sathyabama Institute of Science & Technology,Chennai- EEE DEPT	Online Faculty Development Program on Simulation Tools for Power Electronics and Power Systems	6 days
16.7.2020 to 18.7.2020	SSN College ofEngg, Chennai-EEE DEPT	National level virtual FDP on” Microgrid:Operation &Control”	3 days
20.7.2020 to 24.7.2020	St. JOSEPH'S INSTITUTE OF TECHNOLOGY St. JOSEPH'S GROUP OF INSTITUTIONS OMR,	International Online Faculty Development Program on “TRENDS IN	5 days

	Chennai-119-EEE DEPT	ELECTRIC VEHICLES”	
Jan-Feb 2021	NPTEL	Effective Engineering Teaching in practice	4 weeks
18.12.2023 to 22.12.2023	S.A Engg College	FDP on Recent trends and developments in AI for automotive EV	One week
Jul-Oct 2023	NPTEL	IIOT	12 weeks
Jul-Oct 2024	NPTEL	MEMS	12 weeks
Jan-Apr 2025	NPTEL	Sensors and Actuators	12 weeks
One semester QIP Jul2025-Dec 2025	NIT Warangal	Intelligent IoT with 5G beyond use cases	6 Months

Online Webinars:

Date	Venue	Title	Duration
2.5.2020	MHRD-IIC	India First Leadership Talk webinar broadcasted	One day
8.5.2020	Sri Chandrasekaranandha saraswathivisva maha vidyalaya-	Virtual Assessment program “Research	One day(E certificate provided)

	Kanchipuram	Methodology”	
13.5.2020	MHRD-IIC	Leadership Talk with Shri R Subrahmanyam, IAS (Secretary Ministry of Social Justice & Empowerment)	One day
	ICT ACADEMY-SKY CAMPUS	Season 5 of Skycampus on the theme The Future of Skills - Education, Employment & Entrepreneurship	One day
6.6.2020	R.M.D Engg College-MHRD-IIC	Online webinar on” Contemporary challenges & Issues in IPR in academia & industries under COVID-19	One day
10.6.2020	R.M.D Engg College-MHRD-IIC	Online webinar titled “Patent Act, Drafting, Filing system and challenges in India” .	One day
12.6.2020	ICT Academy-Sky Campus	Insightful Fridays of Skycampus Digital Knowledge Webinar Series on the theme BUILDING A	One day

		SUSTAINABLE FUTURE Expert Talks & Panel	
13.06.2020	MHRD-IIC	Leadership Talk with Shri R Subrahmanyam, IAS (Secretary Ministry of Social Justice & Empowerment)	One day
24.6.2020	Sri Sairam Engg College-MHRD- IIC(R&D)	National webinar on" Research & Innovations in Defense Sectors"	One day
29.6.2020	SRM Valliammai Engg College-chennai	Webinar on "Robotics & its future"	One day
14.12.2020 to 18.12.2020	ATAL FDP	Design Thinking	5 days
21.09.2020 to 25.09.2020	ATAL FDP	IoT	5 days
1.12.2020 to 5.12.2020	ATAL FDP	Power Electronics	5 days
04.10.2021 to 07.10.2021.	Easwari Engg College	IPR	4 days
06.12.2021 to 10.12.2021	NITTTR Chennai	"Arduino Programming using Tinkercad"	One week

1st & 2nd, August, 2022	SSN College Of Engg	Simulation of Power Converters using Matlab – Simulink'	2 days
26th – 29th September, 2022	SSN College Of Engg	'Renewable Energy Systems Laboratory	4 days

Interaction with outside world

1. presented a lecture on the topic “Networking in GreenIoT” on 18.03.2021 in the AICTE sponsored short term training programme on Green IOT for Smart Environment organized by Department of Computer Science and Engineering of Panimalar Institute of Technology, conducted on 15th March to 20th March 2021