

<b>Name: S.Saranya</b>				
<b>Designation:</b>	AP-Gr-III			
<b>Qualification:</b>	M.E. Ph.D. (Pursuing)			
<b>Area of specialization:</b>	VLSI DESIGN			
<b>Experience : (As On September 2020)</b>	<b>Industrial Experience</b>		<b>Teaching Experience</b>	
	NIL		9.6 YEARS	
<b>Number of workshop / FDP attended:</b>	<b>Number of Workshops</b>		<b>Number of FDPs</b>	
	7		15	
<b>Publications:</b>	<b>Conference</b>		<b>Journal</b>	
	<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>
	3	12	NIL	4
<b>Patents:</b>	<b>National</b>		<b>International</b>	
	NIL		3(PUBLISHED)	
<b>Professional Body Membership:</b>	IEEE,ISTE			
<b>Staff Achievements:</b>	Top Performing mentor for the NPTEL course-Deep Learning, Cloud Computing. Got mentor certificate in NIRAL THIRUVIZHA NPTEL DOMAIN SCHOLAR-MAY 2025			

<b>Workshop Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Venue</b>	<b>Month/Year</b>
	1	Industrial Automation	Tagore Engineering College	12 <sup>th</sup> March/2011
	2.	Analog and Digital IC Design using CADENCE tools	Chettinad College of Engineering and Technology	7-8 october/2013
	3.	Training cum orientation workshop in faculty development	Indira Gandhi College of Engineering and Technology for Women	19 <sup>th</sup> – 26 <sup>th</sup> June/2015
	4.	Design Thinking	Sri sairam Engineering College	28 <sup>th</sup> July,2023
	5.	VLSI to System Design	Organised by AICTE	31 <sup>st</sup> July to 4 <sup>th</sup> August 2023
	6.	FPGA Design methodology	CoreEL Technologies	10 <sup>th</sup> and 11 <sup>th</sup> September2024
<b>FDP Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Venue</b>	<b>Month/Year</b>

	1.	FDP on “Internet of Things”	Sri Sairam Engineering College	23 <sup>rd</sup> -24 <sup>th</sup> November/2016
	2.	National Level FDP on “Teaching Excellence in Engineering and Management curriculum”	Sri Sairam Engineering College	20 <sup>th</sup> -21 <sup>st</sup> June/2016
	3.	FDP on Web Application security	Jeppiaar Institute of Technology	27 <sup>th</sup> -28 <sup>th</sup> May 2020
	4.	FDP on Data Science using Python	Jeppiaar Institute of Technology	18 <sup>th</sup> -22 <sup>nd</sup> May 2020
	5.	FDP on “Recent trends in information, computing, communication and Teaching methodology competency	Sri sairam Engineering College	4 <sup>th</sup> to 17 <sup>th</sup> May 2020
	6.	FDP on “Next Generation Intelligence”	St. Peter’s Institute Of Higher Education And Research	20 <sup>th</sup> May to 25 <sup>th</sup> May 2020
	7	FDP on “Accreditation and Outcome Based Learning”	NPTEL-AICTE	Aug-Oct 2023
	8	FDP on “Modern VLSI Design and EDA Tools Hands-on”	NATIONAL INSTITUTE OF TECHNOLOGY DELHI	2nd to 8th November, 2023

		Faculty Development Program on Generative AI Models and Applications of Machine Learning	Shri Vishnu Engineering College for Women.	21-05-2024 to 25-05-2024
		Perspectives of 6G towards next Gen Communications	Sri Sairam Engineering College	07-04-2025 to 11.04.2025

Conference Details:	Sl. No.	Title	Venue	Month/Year
	1.	Memory based realisation of FIR digital filter using OMS scheme	SMK Fomra Institute of Technology	3 <sup>rd</sup> April/2012
	2.	Synthesis and simulation of hyperbolic tangent activation function using hybrid approximation in VLSI	Syed Ammal Engineering College	30 <sup>th</sup> Jan-1 <sup>st</sup> Feb/2014
	3.	Implementation of PWL and LUT based Approximation for Hyperbolic Tangent Activation Function in VLSI	Adhiparasakthi Engineering College	3 <sup>rd</sup> -5 <sup>th</sup> April/2014
	4.	A Novel Algorithm for Computing 8 Point DCT	A.C.T College of Engineering and Technology	9 <sup>th</sup> -10 <sup>th</sup> April/2015
	5.	Efficient VLSI implementation of fast radix-2 DCT	Indira Gandhi College of Engineering and Technology for Women	20 <sup>th</sup> March/2015
	6.	Auto Theft Prevention using Gravitational Lock	Indira Gandhi College of Engineering and Technology for Women	20 <sup>th</sup> March/2015

	7.	Traffic density analysis using background subtraction algorithm	St. Joseph college of Engineering	22 <sup>nd</sup> March/2019
	8.	Cost effective smart home based on FPGA	St. Joseph college of Engineering	22 <sup>nd</sup> March/2019
	9.	Driverless vehicle for Garbage Collection	Sri Sairam Engineering College	20 <sup>th</sup> to 22 <sup>nd</sup> February 2020
	10	Raspberry Pi Based Smart Walking Stick for Visually Impaired Person	Musaliar College of Engineering and Technology, Pathanamthitta, Kerala.	24th & 25th Sep 2021
	11	Personality Prediction Through CV Analysis using Machine Learning Algorithms for Automated E-Recruitment Process	Sri Sai Ram Engg. College	16th & 17th Dec 2021
	12	Arduino Based Circuit Breaker for Power Distribution Lines to Enhance the Safety of Lineman	Francis Xavier Engineering College, Tirunelveli	10th & 11th Feb 2022
	13	A Novel Algorithm with Complexity Reduction for Multimedia Applications	Sri Sai Ram Engg. College	10th & 11th March 2022

	14	Identification of Currency Note for Blind People	Symbiosis Institute of Technology, Pune	21st & 22nd June 2022
	15	Smart Guiding Assistant for Visually Impaired using Raspberry Pi	Sri Sai Ram Engg. College	09th Nov to 10th Nov 2022
	16	Smart Blind Cane for Blind and Deaf People with a Safety Trigger	Sri Sai Ram Engg. College	08th Dec to 09th Dec 2022
	17	Cloud Assisted IoT Enabled Forest Fire Detection System	Sri Sai Ram Engg. College	08th Dec to 09th Dec 2022
	18	DESIGN OF AN EFFICIENT MAC UNIT FOR DSP APPLICATIONS	Sri Sai Ram Engg. College	14 <sup>th</sup> and 15 <sup>th</sup> December 2023
	19	GAS LEAKAGE DETECTION SYSTEM USING ARDUINO	Sri Sai Ram Engg. College	14 <sup>th</sup> and 15 <sup>th</sup> December 2023
	20	RASPBEERY-PI BASED EXIGENCE INFORMER	Sri Sai Ram Engg. College	14 <sup>th</sup> and 15 <sup>th</sup> December 2023

**Additional Details:**

- Delivered a Workshop on the topic “**Verilog HDL design based entry and simulation** “ in an International conference on communication, computing and internet of things

Journal Details:	Sl. No.	Title	Journal Name	Volume/Date
	1.	Synthesis and simulation of hyperbolic tangent activation function using hybrid approximation in VLSI	International Journal of Electrical and Communication Engineering for Advanced Research	Vol. 2, SP-1, Feb. 2014
	2.	Traffic density analysis using background subtraction algorithm	International Journal of Scientific Research and Review	Vol. 8, Issue 3, March 2019
	3.	Cost effective smart home based on FPGA	International Journal of Scientific Research and Review	Vol. 8, Issue 3, March 2019
	4.	Traffic Density Analysis Using Canny Edge Detection Algorithm	Test Engineering and Management	Volume 82 Page Number: 16859 - 16863 January - February 2020
	5.	Zigbee based Automation Systems for Homes with the Deployment of Smart Sensors	Materials Today: Proceedings (SCOPUS INDEXED)	<a href="https://doi.org/10.1016/j.matpr.2021.01.043">https://doi.org/10.1016/j.matpr.2021.01.043</a> <a href="https://doi.org/10.1016/j.matpr.2021.01.043">https://doi.org/10.1016/j.matpr.2021.01.043</a>

	6	Driverless Vehicle for Garbage Collection	Materials Today: Proceedings (SCOPUS INDEXED)	016/j.matpr.2021.01.044
	7	Personality Prediction Through CV Analysis using Machine Learning Algorithms for Automated E-Recruitment Process	IEEE Xplore Digital Library (SCOPUS INDEXED)	Electronic ISBN: 978-1-6654-1447-0,
	8	A Novel Algorithm with Complexity Reduction for Multimedia Applications	IEEE Xplore Digital Library	DOI: 10.1109/IC
	9	Smart Footwear for Patients with Diabetic Neuropathy	Indian Journal of Natural Sciences	Electronic ISBN: 978-1-6654-7995-6654-7995- Electronic ISBN: 978-1-6654-7995-
	10	A Smart Navigation Gadget for Visually Impaired People	Indian Journal of Natural Sciences	Volume 131, <a href="https://doi.org/10.1007/978-981-19-1844-5_55">https://doi.org/10.1007/978-981-19-1844-5_55</a>

	11	Arduino Based Circuit Breaker for Power Distribution Lines to Enhance the Safety of Lineman	Lecture Notes on Data Engg. and Communications Technologies	20 August 2022, <a href="https://doi.org/10.1063/5.0103097">https://doi.org/10.1063/5.0103097</a>
	12	Raspberry Pi based Smart Walking Stick for Visually Impaired Person	AIP Conference Proceedings	<a href="https://doi.org/10.1007/978-981-99-1767-9">https://doi.org/10.1007/978-981-99-1767-9</a>
	13	Automated Mishap Detection and Prevention System for Vehicles	Lecture notes on Intelligent Communication Technologies and Virtual Mobile Networks	<a href="https://doi.org/10.1007/978-981-99-1767-9">https://doi.org/10.1007/978-981-99-1767-9</a>
	14	Brain Computer Interface for Stroke Psychotherapy: Intonation of Cortical High-Strung	Lecture notes on Intelligent Communication Technologies and Virtual Mobile Networks	2023,12(Spe cial Issue 12), 1220- 1225
	15	Image compression algorithm for energy efficiency optimization in wireless sensor networks	Eur. Chem. Bull.	2023,12(Spe cial Issue 12), 1213- 1219
	16		Eur. Chem. Bull.	

		<p>A compendious review on different mac architectures</p> <p>Design of an Efficient MAC Unit for DSP Applications</p>	<p>IEEE Xplore Digital Library (Scopus Indexed)</p>	<p>Electronic ISBN: 979-8-3503-9458-</p>
		<p>Gas Leakage Detection System using Arduino</p>	<p>IEEE Xplore Digital Library (Scopus Indexed)</p>	<p>Electronic ISBN: 979-8-3503-9458-0</p>
		<p>Intelligent Surveillance Using Drones for Various Application</p>	<p>IEEE Xplore Digital Library (Scopus Indexed)</p>	<p>Electronic ISBN: 979-8-3315-3757-9,</p>
		<p>IoT Smart Parking with Android App</p>	<p>IEEE Xplore Digital Library (Scopus Indexed)</p>	<p>Electronic ISBN: 979-8-3315-3757-9</p>
		<p>Smart Water Monitoring System</p>	<p>IEEE Xplore Digital Library (Scopus Indexed)</p>	<p>Electronic ISBN:979-8-3315-3757-9</p>
		<p>MyoSync the Art of Synchronising Actuators to Muscles</p>	<p>IEEE Xplore Digital Library (Scopus Indexed)</p>	<p>Electronic ISBN:979-8-3315-3757-9</p>

<b>Patent Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Country</b>	<b>Applied Date</b>
	<b>1</b>	An Internet of Things and Machine Learning Based Self-Driven Warehouse Robot Vehicle	<b>India</b>	<b>15.05.2022</b>
	<b>2</b>	A POWER GENERATING KITE SYSTEM- PRODUCTION OF ELECTRICITY FROM THE WIND	<b>India</b>	<b>14/02/2020</b>
	<b>3</b>	FIREBOT-A FOREST FIRE DETECTION AND PREVENTION SYSTEM USING LORAWAN AND IOT	<b>India</b>	<b>07/02/2023</b>