

<b>Name:</b>	<b>S.USHA</b>			
<b>Designation:</b>	Associate Professor			
<b>Qualification:</b>	M.E. (Ph.D.)			
<b>Area of specialization:</b>	EMBEDDED SYSTEM TECHNOLOGIES			
<b>Experience : (As On Dec. 2022)</b>	<b>Industrial Experience</b>		<b>Teaching Experience</b>	
	4 YEARS		23 YEARS	
<b>Number of workshop / FDP</b>	<b>Number of Workshops</b>		<b>Number of FDPs</b>	
<b>attended:</b>	15		27	
<b>Publications:</b>	<b>Conference</b>		<b>Journal</b>	
	<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>
	12	6	4	9
<b>Professional Body Membership:</b>	Senior Member of IEEE, Fellow of IETE , Life Member of ISTE , Member of IEI and IAENG			

<b>Trainings and Courses Attended regarding Accreditation</b>	<p>Completed</p> <ol style="list-style-type: none"> <li>1. Accreditation and Outcome based Learning course</li> <li>2. NBA Accreditation and Teaching Learning in Engineering 3. Outcome based Pedagogic principles for Effective Teaching 4. Internal Auditor Training Course on Educational Organizations Management Systems(Based on ISO 21001:2018 Standard) 5. Attended Technical Workshop on Management System Auditing ISO 19011:2018</li> <li>6. Acted as a resource person for Accreditation criteria 1 preparation.</li> </ol>
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	<p>7. Audited the departments for Accreditation related activities.</p>
<b>Staff Achievements:</b>	<p>Achieved 100% result many times  Ranked one among top 2% in NPTEL <b>Digital Circuits</b>,  5 % in NPTEL <b>Embedded system design CMOS digital VLSI , Design and Analysis of VLSI Subsystems</b> and many VLSI courses  Completed more than 20 courses in <b>Coursera</b>, 5 courses in <b>Futureskills, Guvi, ICT Academy</b>  Co-ordinated FDP's, Workshops, Conferences, Symposium etc. Acted as a Reviewer, Resource person and Session Chair  Onboard member of two private companies  Department <b>NBA</b> and <b>NAAC</b> coordinator  Course Coordinator, Course Moderator, Embedded -SIG  Head. Received <b>National Educator Award</b> from I2OR  Completed <b>NITTTR MENTORSHIP CERTIFICATION – July 2021</b> Completed <b>all 8 modules in NITTTR</b>.  Received <b>NITTT Achiever Award</b>  Fund of <b>\$1000</b> is approved under IEEE CASS Educational Initiatives.</p>

<b>Workshop Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Venue</b>	<b>Month/Year</b>
	1	Industry Institute Interaction	Anna University	5 <sup>th</sup> Sep'2006
	2	Matlab and its applications Raguram Associates	Sri Sai Ram Engg. College	26th July2007 to 27 <sup>th</sup> July2007
	3	Emerging trends on high-end FPGA's	Anna University	10th Dec'2010 to 12 <sup>th</sup> Dec'2010
	4	Seminar on VLSI Design	Hotel Rain tree, Anna Salai,	7 <sup>th</sup> Sep'2012

			Chennai -2.	
	5	Recent trends in Antennas for Multifield Applications	Sri Sai Ram Engg. College	27 <sup>th</sup> Dec'2012 & 28 <sup>th</sup> Dec'2012
	6	Entrepreneurship Summit 2013	Sri Sai Ram Institute of Management Studies	8.1.13 – 10.1.13
	7	R&D Proposal writing for Faculties	Sri Sai Ram Engg. College	12.06.20

	8	Workshop on National Initiative for Technical Teachers Training (NITTT)	NITTT	20.02.20
	9	Advancements in Embedded System and Software Design”	SSN College of Engg.	31.7.20 & 1.8.20
	10	Webinar on CAD tools for VLSI Design	Kamaraj College of Engineering and Technology	13.06.20
	11	Webinar on Article Writing and Journal Publications	Kings Engineering College	17.07.20
	12	Workshop on PCB Design	Kings Engineering College	19.06.20
	13	Hands on workshop on Routing and Switching concepts in Data communication	Sri Sairam Enginnering College	1.12.22 to 2.12.22

		and Networking using Cisco Packet Tracer		
	14	Latest Trends in VLSI Devices, Circuits and Tools	NATIONAL INSTITUTE OF TECHNOLOGY DELHI	19th to 24th September, 2022
	15	Certificate course on Digital Teaching Techniques	R systems Women Educators Program	02.02.23 to 17.02.23

<b>FDP Details:</b>	<b>Sl. No. Title Venue Month/Year</b>			
	1	FDP on Digital Communication	SSN College of Engg.	24th Nov'2003 to 29 <sup>th</sup> Nov'2003
	2	FDP on Mechatronics	Crescent Engg. College	24th May-2004 to 29 <sup>th</sup> May 2004

	3	Work life balance for Engineering and Management Faculty	Sri Sai Ram Engg. College	16th Feb'12 to 22 <sup>nd</sup> Feb'12
	4	Role of Academic Excellence in Developing World Class Higher Learning Institutions and Faculties	Sri Sai Ram Engg. College	12 <sup>th</sup> Dec'12
	5	FDP on Embedded Systems with ARM 7 Microcontroller	Sri Sai Ram Engg. College	25th June'15 & 26th June'15
	6	FDP on	Sri Sai Ram	06th June'16 to 13th

		Embedded and Real time systems	Engg. College	June'16
	7	FDP on Outcome Based Pedagogy	IIT, Chennai	13th Nov'18 to 15th Nov'18
	8	FDP on Outcome based Pedagogic principles for effective teaching	IIT, Kanpur	Aug – Sep'18
	9	FDP on Entrepreneurship career development program	SIMS	08/04/19 TO 12/04/19
	10	FDP on Outcome based Education	Sri Sai Ram Engg. College	5th Apr'19
	11	FDP on CMOS Digital VLSI Design	IIT, Karagpur	Feb-Apr'19
	12	Organized FDP on CMOS Analog IC Design	Sponsored by Anna University	25.11.19 to 30.11.19
	13	Online spoken FDP on Advanced Communication Laboratory	PSNA College of Engg. & Technology, Dindugal	20.07.20 to 25.07.20
	14	FDP on Virtual Labs	IIT PALS	24.8.20 to 28.8.20
	15	“FPGA for Low Power IoT”	SRM VALLIAMMAI	06.12.2021 to 11.12.2021.

			ENGINEERING COLLEGE	
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16	FDP on "Design Thinking"	University College of Engineering(A), JNTUK.	2020-10-12 to 2020-10-16
17	FDP on "Artificial Intelligence"	Sri Sairam Engineering College.	2020-12-7 to 2020-12-11
18	FDP on "Artificial Intelligence"	at Indian Institute of Technology Patna.	2020-10-19 to 2020-10-23
19	Online FDP on "Internet of Things (IoT)"	Sri Sairam Engineering College.	2020-11-30 to 2020-12-4
20	FDP on "Computer System Design"	at IIT Tirupati.	03/01/2022 to 07/01/2022
21	FDP on "Research Issues in VLSI Design and Testing"	Government College of Engineering Srirangam.	2021-08-02 to 2021-08-06
22	SciLab Programming	Information Management and Emerging Engineering Department	25/04/2022 to 29/04/2022
23	5-day Face-to-Face UHV-II FDP	at Sri Sairam Engineering College Autonomous, Chennai	26th July to 30th July 2022
24	FDP on SOC Design Methodologies using INTEL FPGA	St. Joseph's college of Engineering	20.07.22 to 22.07.22
25	Innovation in Mentoring pedagogy and incorporation of ICT Techniques	Paavai Engineering College	30.01.23 to 04.02.23

		in Education		
	26	Recent trends in 5G Communication Networks	Sri Sairam Engineering College	26.12.22 to 30.12.22

	27	Quantum Computing and its future scope	ATAL FDP	18.12.23 to 26.12.23
<b>Conference Details:</b>	<b>Sl. No. Title Venue Month/Year</b>			
	1	National Conference on Emerging Trends in Communication “ Performance Comparison of Packet scheduling algorithms in Mobile Adhoc Networks	Dhanalakshmi Srinivasan Engineering College	28th Feb 2007
	2	AICTE Sponsored International Conference on Innovative computing, Information and Communication Technology (ICICT’09)	Sri Sairam Engineering College	16 to 18 Dec 2009

	3	National Conference on Advances in Electrical and Electronics Engineering-2013 Adaptive runtime reconfigurable wireless sensor nodes based on dynamic data aggregation	Sri Venkateshwara college of Engg.	15.3.13 Page 6
	4	National Conference on Advanced Communication & Computing Techniques NCACCT'13 “ Reconfigurable wireless sensor Networks	Sri Sairam Engineering College	18-19 th March 2013

	5	First National Conference on Recent Trend in Information Technology NCRTIT 2012 “ A cost Effective Automatic Antifreeze fluid sprinkler for Railway Coal Conveyors “ G. Sudhakar, Ms. S.Usha, Page No. 155-158	RMK College of Engg and Tech.	20th Feb 2012
	6	Research Trends in Electronics	St.Joseph's College of	21 <sup>st</sup> Mar'2014



		and Communication, “  Implementation of speed control of Brushless DC motors using IOPT Petri Net models	Engineering	
	7	5 th National Conference on VLSI, Embedded, Communication and Networks(VECa N 2014) Speed Control of Motors using IOPT tools	, Easwari Engineering College	17.4.14
	8	Advanced Communication & Computing Techniques	Sri Sairam Engineering College	18th Mar'2013 & 19 <sup>th</sup> Mar'2013
	9	Emerging Research & Advances in Mechanical Sciences” Vehicle Collision Avoidance with adaptive cruise control	Velammal Engineering College	22 <sup>nd</sup> Mar'2013

	10	Future Proof your code with the latest co- processor	Taj Connemara, Binny Road, Chennai -2.	18 <sup>th</sup> Sep' 2013
	11	National Instruments symposium 2014	Hotel Radisson Blu, Chennai	9 <sup>th</sup> Sep' 2014
	12	Advanced	Sri Sairam	11 <sup>th</sup> April 2014

		Communication & Computing Techniques	Engineering College	
	13	Construction, Computing, Control, Communication and Manufacturing, “Alert System for forest animals to avoid from Train Accidents, R.	SRS College of Engineering and Technology	23rd Feb'2015 to 28th Feb'2015
	14	5 th International Conference on Science and Innovative Engineering 2015 Alert system for Forest Animals to avoid from train accidents,	Jawahar Engineering College	5.4.15 ISBN 978-81-904760-7-2
	15	First International Conference on Recent Trends in Enigneering and Technology (ICRTET-16) Paper titled Prediction of Insulation Failure in Transformer winding using Signature analysis”	St.Joseph’s Instituuute of Technology	28-29 th April 2016
	16	International Conference on Communicati on, Computing & Internet of Things	Sri Sairam Engineering College	15-17th Feb 2018

		(IC3IOT 18)		
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	17	3rd International Conference on Computational Intelligence & IoT “Performance Analysis of Three Operand Binary Adders Using Parallel Prefix Adders for High Speed and Area Efficient Implementation”	North Eastern Regional Institute of Science and Technology, Nirjuli, Arunachal Pradesh	24th February to 25rd February 2023.
	18	ICNGWN2023 Design and comparison of 24 bit three operand adders using parallel prefix methods for efficient computation	Sri Venkateswara college of Engineering	October 19th-20th, 2023

Journal Details:	Sl. No. Title Journal Name Volume/Date			
	1	Cloud Based Reconfigurable DC Motor Controller Code Design Using IOPT models	International Journal of Research in Engg. And Advanced Technology	Volume 1, Issue 5, Oct - Nov 2013 ISSN: 2320-8791
2	Real time System for Monitoring and Improving the flow of sewer system, M.K.	International Journal of Emerging Technology & Advanced Engineering	Volume 4, Issue 2, February 2014 ISSN:2250-2459	

		Elango and S.Usha		
	3	Alert System for forest animals to avoid from train accidents R.Vinoth and S.Usha	International Journal of science and innovative engineering and technology	Volume 2 May2015 issue ISBN 978-81-904760-7-2
	4	“Prediction of insulation failure in transformer winding using signature analysis.”	SS International Journal of Multidisciplinary Research [SSIJMR].	Volume 2 Issue 6, 2016 E-ISSN: 2395-7964 Page No. 68

	5	Optimized BPSK and QAM Techniques for OFDM systems	IJCTA, International Science Press	2016 ISSN: 0974-5572; pp:2759-2766
	6	Mechanism of 3 DOF robotic needle steering model using Labview	International Journal of Recent Engineering Research and Development	Vol. 02, Issue 06, June 2017 ISSN: 2455-8761   PP. 01-08
	7	IOT Based Anti-Theft Protection And Continuous Monitoring System For ATM	THINK INDIA Journal	April -June 2019 ISSN:0971-1260
	8	Waiter robot with billing system	THINK INDIA journal	April -June 2019 ISSN:0971-1260
	9	Process Automation in RTO offices for issuing Driving	Studies in Indian Place Names (UGC Care	ISSN: 2394-3114 Vol 40 issue 1 (s1) January 2020 Page No. 54-59

		Licences	Journal)	
	10	DOMOTICS BASED ON SEARCH ASSISTANT	Studies in Indian Place Names (UGC Care Journal)	ISSN: 2394-3114 Vol 40 issue 1 (s1) January 2020 Page No. 29-38
	11	Search Assistant Based Home Automation	INTERNATION AL JOURNAL OF ELECTRONICS, COMMUNICAT ION & INSTRUMENT ATION ENGINEERING RESEARCH AND DEVELOPMEN T (IJECIERD); "	ISSN (ONLINE): 2249-7951; ISSN (PRINT): 2249-684X; IMPACT FACTOR(JCC) (2020): 8.2083; INDEX COPERNICUS VALUE (ICV) - (2016): 61.75; NAAS RATING: 2.92; VOL - 10, ISSUE - 2; EDITION: DEC2020 Page No. 21-28

	12	A novel algorithm with complexity reduction for Multimedia Applications using 8 point DCT	International conference on Communicati on, computing and Internet of Things	DOI:10.1109/ IC3IOT539 35.2022.9767964
	13	Energy efficient Spatial Modulation in Wireless Sensor Networks	International conference on Communicati on, computing and Internet of Things	DOI:10.1109/ IC3IOT539 35.2022.9768000

**BOOK CHAPTER:**

**Societal and Ethical Implications of Robotics “ ESN**  
Publications.DOI/ISBN Number: 978-93-90781-09-6 Volume/Issue:1/1, Year  
published: February 2021

**Patent Details:**

1. A Method And Device For The Deformation Of The Waste Containers Through The Pneumatic Operated

Application No.202041052263 A Publication Date : 11/12/2020

2. Security Tracking Big Data Processing System with Cloud

Computing Application No.202241010451 A Publication Date : 18/03/2022

3. Computational Iot Framework Based On Smart And Low-Cost Devices For Medical Image Segmentation

Application No.202341062364 A Publication Date : 06/10/2023

I hereby declare that the information provided above is true and correct.

S.USHA