

<b>Name:</b>	<div style="text-align: center;">   <b>K. SUBHASHINI</b> </div>			
<b>Designation:</b>	<b>ASSOCIATE PROFESSOR</b>			
<b>Qualification:</b>	<b>M.E (Pursuing Ph.D)</b>			
<b>Area of specialization:</b>	<b>MEDICAL ELECTRONICS</b>			
<b>Experience : (As On July 2022)</b>	<b>Industrial Experience</b>		<b>Teaching Experience</b>	
	-		<b>22 years</b>	
<b>Number of workshop / FDP attended:</b>	<b>Number of Workshops</b>		<b>Number of FDPs</b>	
	<b>15</b>		<b>24</b>	
<b>Publications:</b>	<b>Conference</b>		<b>Journal</b>	
	<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>
	<b>7</b>	<b>7</b>	<b>9</b>	<b>13</b>
<b>Patents:</b>	<b>National</b>		<b>International</b>	
	<b>7</b>		-	
<b>Professional Body Membership:</b>	<b>ISTE, IETE, IEEE</b>			

<b>Staff Achievements:</b>	<p>Obtained 100% result in Computer Architecture in the academic year 2009-10</p> <p>Obtained 100% result in Advanced Digital Signal Processing in the academic year 2010-11</p> <p>Obtained 100% result in Computer Architecture and Organization in the academic year 2014-15</p> <p>Obtained 100% result in Advanced Digital Signal Processing in the academic year 2015-16</p> <p>Obtained 100% result in Advanced Digital Signal Processing in the academic year 2016-17</p> <p>Obtained 100% result in Medical Electronics in the academic year 2018-19</p>			
<b>Workshop Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Venue</b>	<b>Month/Year</b>
	1	Practical aspects & implementation of networking protocols	Velammal Engineering College, Chennai.	September 2006
	2	Digital Image Processing	Sri Ramakrishna Engineering College, Coimbatore	February 2007
	3	MATLAB & its Applications	SSN College of Engineering, Kalavakkam	May, 2007
	4	Recent Trends in Wireless Information Networks and Systems	Sri Sairam Engineering College, Chennai	February 2008
	5	Digital IC testing using automatic test equipment	Tessolve in association with ELCOT, Chennai	April 2009
	6	High speed Digital design and testing	Madras Institute of Technology, Chennai	September 2009
	7	Research Methodologies in next generation wireless network	Sri Sairam Engineering College	August 2010

		using OPNET		
	8	Wireless Communication and Radiating Systems	Sri Sairam Engineering College	March 2011
	9	Acquisition, Processing and Optimization of Real Time signals, Images and Videos	Easwari Engineering College, Chennai	May 2011
	10	Introduction to LABView programming and Data Acquisition system	VIT Chennai	February 2014
	11	Green Communication	St.Joseph's Institute of Technology, Chennai	September 2014
	12	Python Programming	Sri Sairam Engineering College, Chennai	October 2017
	13	Emerging Trends and Future Perspective in Image Processing and Computer Vision	Sri Sairam Engineering College, Chennai	January 2018
	14	Wearable sensors And devices, artificial intelligence and wearables markets (WSAIM)	IEEE Sensors Council Italy Chapter	18th-19th November 2020
	15	Easy and solid logics for research paper writing in high	SSN-IEEE-SPS	14.9.23-15.9.23

		impact journals		
<b>FDP Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Venue</b>	<b>Month/Year</b>
	1	Advanced Digital Signal Processing	College of Engineering Guindy, Anna University Chennai	May 2008
	2	VHDL Programming	Sri Sairam Engineering College	March 2010
	3	Recent Developments in Computing	Sri Sairam Engineering College, Chennai	April 2010
	4	MATLAB Applications in Electrical Engineering	Sri Sairam Engineering College, Chennai	March 2012
	5	World Class Higher Learning Institutions and Faculties	Sri Sairam Engineering College, Chennai	December 2012
	6	Computer Networks	Sri Sairam Institute of Technology, Chennai	January 2016
	7	Optical Communication and Networks	Sri Sairam Engineering College, Chennai	June 2017 Jan-April2018
	8	Control Systems	NPTEL (12weeks)	

	9	Health Research Fundamentals	NPTEL (8weeks)	August-September 2018
	10	Goal Setting	Sri Sairam Engineering College, Chennai	December 2018 April 2019
	11	Entrepreneurship Career Development Program	Sri Sairam Engineering College, Chennai	
	12	Artificial Intelligence: Concepts and Applications- ATAL FDP	Indian Institute of Information Technology, Design & Manufacturing, Kancheepuram	December 2019
	13	Deep Learning Applications- STTP	Sri Venkateshwara College of Engineering	19.10.20 to 23.10.20
	14	Capacity Building- ATALFDP	Thapar Institute of Engineering and Technology, Punjab	26.10.20 to 30.10.20
	15	Data Science and Analytics using Python- ATAL FDP	Indian Institute of Information Technology, Nagpur	30.11.20 to 4.12.20
	16	SciLab Programming	NITTTR Chandigarh	25.4.22 to 29.4.22
	17	Deep Learning and its applications- FDP	Sri Sairam Engineering College	11.7.22 to 15.7.22
	18	No Code And Low Code Machine Learning Techniques	SEC & MIND TREE	19.12.23- 23.12.23
				September 2021-

	19	NITTTTR-Module1-8	NITTTTR	February 2023 2.2.23-17.2.23
	20	Digital Teaching Techniques	ICT Academy	August2023- October 2023
	21	Accreditation and Outcome Based Learning	NPTEL	15.11.23- 17.11.23
	22	FDP on wearable technology in healthcare	VIT VELLORE & IEEE	December 2023
	23	Yoga for Stress Management	NPTEL	18.12.23- 22.12.23
	24	Deep learning and its application to biomedical signal and image processing	IIITDM-IEEE SPS SCHOOL	26.12.24- 30.12.24
	25	Fundamentals of AI and Robotics: Theory and Practice	IIITDM Kancheepuram	3.11.25-8.11.25
	26	Advanced Design and optimization techniques for next generation Antennas	Sri Sairam Engineering College	17.11.25- 22.11.25
	27	Leveraging explainable AI to enhance communication systems, signal and image processing	Sri Sairam Engineering College	
<b>Conference Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Venue</b>	<b>Month/Year</b>

	1	Compression of Echocardiogram image sequence using H.264	ETCCN'07 Rajalakshmi Engineering College, Chennai	April 2007
	2	National Conference on Signals, Systems & Communication	College of Engineering Guindy, Anna University Chennai.	June 2007
	3	National Conference on Biomedical Engineering & Bio-Informatics	Sri Sairam Engineering College, Chennai	February 2009
	4	International Conference on "Innovative Computing, Information and Communication Technology	Sri Sairam Engineering Collge, Chennai	December 2009
	5	Denosing of ECG signal and QRS peak detection using Empirical Mode Decomposition	Karpaga Vinayaga College of Engineering and Technology	2012
	6	Visual Fuzzy Controller for Gesture Language Recognition system to aid Physically impaired people	University College of Engineering, Panruti-IJERT	March 2013
	7	National Conference on Advanced Communication & Computing Techniques	Sri Sairam Engineering College, Chennai	March 2013

	8	National Conference on Advanced Communication & Computing Techniques	Sri Sairam Engineering College, Chennai	April 2014
	9	International Conference on Recent trends in Engineering Science and Management	Jawaharlal Nehru University, New Delhi	March 2015
	10	International Conference on recent trends in Engineering & Technology	St. Joseph's Institute of Technology, Chennai	May 2017
	11	International Conference on recent trends in Engineering & Technology	St. Joseph's Institute of Technology, Chennai	May 2018
	12	International Conference on Advanced Scientific Innovation in Science, Engineering and Technology	Bharath Institute of Higher Education and Research	April 2018
	13	International Conference on Information, Embedded and Communication Systems	St. Joseph College of Engineering	March 2019
	14	Survey on Benefits of Pranayama on Respiratory health	IETE Zonal Seminal, Sri Sairam Engineering	September 2019

		using Pressure Sensor	College, Chennai	
	15	Shelf Traversing BOT for Commercial and Industrial Applications	IC3IOT 2020 Sri Sairam Engineering College	February 2020
	16	Acquisition and Analysis of Respiratory signal	IC3IOT 2022 Sri Sairam Engineering College	March 2022
	17	A Novel Image Encryption Algorithm Based On Chaotic Map	2023 Fifth International Conference on Electrical, Computer and Communication Technologies (ICECCT)	February 2023
	18	A Chaos Based Joint Image Compression and Encryption Scheme	First International Conference on Data Science and Advanced Computing (ICDSAC 2023)	August 2023
	19	Image Encryption using Convolutional Neural Network	First International Conference on Data Science and Advanced Computing (ICDSAC 2023)	August 2023
	20	IoT- powered Real Time Smart Plant Surveillance System for Digital Gardening and Agriculture	ICCEBS 2023-SEC	December 2023
	21	Insect identification in field crops using CNN	ICCEBS 2023-SEC	December 2023

	22	An intelligent and wearable epileptic seizure detection device	ICCEBS 2023-SEC	December 2023
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<b>Journal Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Journal Name</b>	<b>Volume/Date</b>
	1	Epileptic seizure Detection using higher order moments on EEG signals	International journal of Biomedical Signal Processing, pg21-25,	volume 2, number 1, January-June 2011
	2	A Survey on fetal ECG Denoising and QRS peak detection	Coimbatore Institute of Information Technology International Journals,pg 260-264	Volume 4, No.6,2012 ISSN: 0974 – 9594
	3	Using ANC and Wavelet Based Technique for Denoising the ocular artifact and detection of epileptic in EEG signal	International journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, pg261-266	Volume 3, Special Issue 3, April 2014.ISSN (Print):2320-3765 ISSN(Online):2278-8875.
	4	An Efficient algorithm for the removal of impulse noise in images using Blackfin Processor	International Journal of Advanced Technology in Engineering and Science, pg1284-1291	Volume No.03, Special Issue No.01, March 2015
	5	The new method for Blood vessel	International Journal of Pure and Applied	Volume No.119 NO.7 2018

		segmentation and optic disc detection	Mathematics	1053-1059
	6	Utilization of Aquaculture in Agriculture using Image Processing	International Journal of Scientific Research and Review, pg 955- 958	Volume 8, Issue 3, 2019 ISSN No. 2279-543X
	7	An Approach For Als Patients To Control Home Appliances Using Beta Waves	TEST Engineering Management	<i>January - February 2020</i> ISSN: <b>0193 - 4120</b> Page No. <b>7729 - 7733</b>
	8	Survey on Benefits of Pranayama on Respiratory health using Pressure Sensor	Studies in Indian Place Names	<b>Vol 40 issue 1 (s1) January 2020</b> ISSN: <b>2394-3114</b>
	9	Numerical analysis of hip bone replacement design parameters	Materials Today Proceedings	<a href="https://doi.org/10.1016/j.matpr.2021.03">https://doi.org/10.1016/j.matpr.2021.03</a> .
	10	Acquisition and Analysis of Respiratory signal	IEEE Xplore	<a href="https://doi.org/10.1109/IC3IOT53935.2022.9767939">https://doi.org/10.1109/IC3IOT53935.2022.9767939</a>
	11	Mobile app for dental caries detection by deploying deep learning model	Neuro Quantology	DOI: <a href="https://doi.org/10.14704/nq.2022.20.13.NQ88175">10.14704/nq.2022.20.13.NQ88175</a>
	12	EOG Signals – A Biomarker for Neurodegenerative Diseases	International journal of science and innovative engineering &	ISBN 978-93-81288-22-1

	13	A Novel Image Encryption Algorithm Based On Chaotic Map	technology IEEE <i>Xplore</i>	<a href="https://doi.org/10.1109/ICECCT56650.2023.10179657">https://doi.org/10.1109/ICECCT56650.2023.10179657</a>
	14	A Chaos Based Joint Image Compression and Encryption Scheme	ITM Web of Conferences	<a href="https://doi.org/10.1051/itmconf/20235604005">https://doi.org/10.1051/itmconf/20235604005</a>
	15	Image Encryption using Convolutional Neural Network	ITM Web of Conferences	<a href="https://doi.org/10.1051/itmconf/20235605005">https://doi.org/10.1051/itmconf/20235605005</a>
	16	Insect Identification in Field Crops Using CNN	Intelligent Computing and Control for Engineering and Business Systems (ICCEBS), Chennai, India	<a href="https://doi.org/10.1109/ICCEBS58601.2023.10449045">https://doi.org/10.1109/ICCEBS58601.2023.10449045</a>
	17	IoT- Powered Real Time Smart Plant Surveillance System for Digital Gardening and Agriculture	Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)	<b>DOI:</b> 10.1109/ICCEBS58601.2023.10449260 <a href="https://doi.org/10.1109/ICWITE59797.2024.10502689">https://doi.org/10.1109/ICWITE59797.2024.10502689</a>
	18	Autonomous Navigation using Lidar Sensor in ROS and GAZEBO	IEEE International Conference for Women in Innovation, Technology & Entrepreneurship (ICWITE)	<a href="https://doi.org/10.1109/IC3IoT60841.2024.10550316">https://doi.org/10.1109/IC3IoT60841.2024.10550316</a>
	19	Leakage Detection Monitoring in Underground Pipes Using ZigBee in Wireless Sensor Networks	International Conference on Communication, Computing and Internet of Things (IC3IoT)	doi: 10.34028/iaji
	20	Image Encryption Using Modified	International Arab	

	21	Perturbed Logistic Map Rover Based Early Warning System for Plant Disease	journal of Information Technology International Conference on System, Computation, Automation and Networking	t/21/5/8 <a href="https://doi.org/10.1109/ICSCAN62807.2024.10894475">https://doi.org/10.1109/ICSCAN62807.2024.10894475</a>
	22	Chaotic Image Encryption using Two Level Scrambling	Advances in Electrical and Computer Engineering	10.4316/AEC E.2025.02004

<b>Patent Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Journal Name</b>	<b>Volume/Date</b>
	1	Frequency Based Insect Repellant System for Safety Agricultural Field	Official Journal of the Patent office	36/2020 4.9.20
	2	Machine learning based personality prediction system and big 5 personality traits using python language	Official Journal of the Patent office	16.11.21
	3	An Electric Vehicle Charger	Official Journal of the Patent office	25.2.2022
	4	A wearable pregnancy monitoring apparatus to collect physiological parameters Intelligent resource	Official Journal of the Patent office	8.11.22

	5	management in cloud computing using genetic algorithms	Official Journal of the Patent office	22.5.24
	6	Sewage surveillance system by wall climbing car module	Official Journal of the Patent office	2.5.25
	7	IOT based smart energy management system with indoor outdoor air quality monitoring with alert system	Official Journal of the Patent office	9.5.25

### **Additional Details:**

- **Delivered a guest lecture on Advanced Digital Signal Processing for M.E Communication Systems (2013-2015 Batch) students on 7.12.2013 at Sri Venkateshwaraa College of Technology, Sriperumbudur, Chennai-105.**
- **Delivered a Short Course on Signal Segmentation in the International Conference (IC3IOT) on 16.2.18 at Sri Sairam Engineering College, Chennai-44.**
- **Co-ordinated ZENISTA'18 -21<sup>st</sup> National Level Technical Symposium conducted by the Department of ECE, Sri Sairam Engineering College, Chennai-44.**
- **Reviewed sample chapters of Control Systems of Oxford University Press.**
- **Organized Anna University sponsored FDTP on CS8082-Machine Learning Techniques during 2.6.21 to 7.6.21.**
- **Published a Book chapter titled “Design and experimental investigation of nanobots for cancer therapy” in the book Robotics And Automation, ESN Publications, pp 76-85, 2021.**
- **Published a Book chapter titled “Investigation of COVID-19 Chest X-ray Images using Texture Features – A Comprehensive Approach” in the Book Computational Modelling and Imaging for SARS-CoV-2 and COVID-19, CRC Press, 2021.**
- **Attended one week Industrial training at GH Induction India during 20.6.22 to 25.6.22.**
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- **Received ATL Tinkerpreneur Mentor certificate during 2021 and 2024.**
- **Completed NPTEL FACULTY DOMAIN ADVANCED during 2024**

- **Completed NPTEL DATA SCIENCE DOMAIN, during 2024-2025**
- **Received PG certificate Program on IoT and Embedded Systems from Department of EEE, Indian Institute of Technology, Jammu, attended during 23<sup>rd</sup> February 2025 to 30<sup>th</sup> November 2025**

