Name:	G.SHANTHAKUMARI

Designation:	ASSOCIATE PROFESSOR

Qualification:	M.E.,(PhD)

Area of specialization:	EMBEDDED SYSTEM TECHNOLOGIES

Experience : (As On April 2021)	Industrial Experience	Teaching Experience
	-	22 YEARS

Number of workshop / FDP attended:	Number of Workshops	Number of FDPs
	8	22

Publications:	Conference		Journal	
	National	International	National	International
	3	**10**	1	**10**

Professional Body Membership:	IAENG-245664 ISTE-LM131454 IEEE Senior member			
Up skilling	Industry certified training course " Real time Operating System Using QNX" Completed.			
Conference Details:	**Sl. No.**	**Title**	**Venue**	**Month/Year**
	1.	National conference on Advanced techniques in instrumentation, control & communication engineering	St. Peters college of Engineering	March 2008
	2.	National conference on signal & image processing	SMK Fomra Institute of Technology	9th & 10th April 2010
	3.	Attended National Conference on "Advanced communication & computing techniques"	Sri Sairam engineering college	11th April 2014
	4.	International conference on Advances emerging technologies 2015.	Jaya Engineering College	28th March 2015
	5.	International intellectual	Aalim Muhammed	

	Sl. No.	Title		Month/Year
		convergence on advances in science and engineering	salegh college of engineering	3rd & 4th March 2017
	6.	International conference on communication computing & Internet of things	Sri Sairam engineering college	. 15th to 17th February 2018
	7.	SLAAI-International Conference on Artificial Intelligence – 2018	Faculty of Information Technology University of Moratuwa, Srilanka	20.12.18
	8.	International conference on communication computing & Internet of things- 2020	Sri Sairam engineering college	February 2020
	9.	Virtual International Conference on Futuristic Communication and Network Technologies(VI CFCNT 2020)	Virtually organized by Vellore Institute of Technology, Chennai	Nov 6-7, 2020
Industrial Visit:				
	Sl. No.	**Title**		**Month/Year**

| | 1. | Industrial visit Programme in training institute. | Rajiv Gandhi Memorial Telecom Training centre | |

Webinar:	Sl. No.	Title		Volume/ Date
	1.	Online Teaching and Branding	B.S.Abdur Rahman Crescent Institute of Science &Technology	20 April 2020
	2.	The four indispensable soft skills you need to master.	Sri Venkateswaraa College of Technology	2 May 2020
Chapter Contribution:	**Sl. No.**	**Title**	**Published By**	**ISBN**
	1.			

Workshop Details:

Sl. No.	Title	Venue	Month/Year
1.	Advanced VLSI Design	Savitha College of Engineering	2007
2.	ORCAD PCB Design	SSN College of Engineering College	2007
3.	Real time Embedded System	RMK college of Engineering	2008
4.	Emerging trends and future perspective in Image processing	Sri Sairam Engineering College	January 2017
5.	MATLAB Interfacing with Arduino	Agni College of Technology	5th March 2016
6.	Machine Learning & Deep Learning	Anna University-Chennai	8th & 9th February 2019
7.	Intellectual Property Rights & Innovations	Sri Sairam Engineering College	20th July 2019
8.	IoT using Raspberry Pi	Vellore Institute of Technology	2ndOct'2020 to 4th Oct'2020

FDP Details:

Sl. No.	Title	Venue	Month/Year
1.	Quality Improvement Programme on "Instructional Design and Delivery" NITTTR	SMK Fomra Institute of Technology	28th July 2006 to 30th July 2006
2.	Quality Management System and Audit Training – ISO 9001: 2008	SMK Fomra Institute of Technology	12th and 13th August 2006
3.	Embedded Systems with ARM 7 Microcontrollers.	Sri Sairam Engineering College	25th & 26th June 2015

4.	Real Time Embedded System Applications Using ARDUINO and LABVIEW	Agni College of Technology	29th & 30th October 2015
5.	IOT using Raspberry Pi	Sri Sairam Engineering College	November 2016
6.	Engineering Teaching Pedagogy and Learning Process	Sri Sairam Engineering College	03th - 07th December 2018
7.	Optical Communication and Networks	Sri Sairam Engineering College	June 2017
8.	Robotics	Sri Sairam Engineering College	13th - 18th May 2019
9.	Data Acquisition & Signal Processing using LabVIEW	SRM Institute of Science & Technology	25th & 26th November 2019
10.	Advanced Simulation Tools for Electronics Engineers.	S A Engineering College.	27th & 1st May 2020
11.	Recent trends in Information, Computing, Communication and Teaching Methodology competency.	Sri Sairam Engineering College.	4th to 17th May 2020
12.	Artificial Intelligence	KIIT Deemed to be University (ATAL)	15th & 19th Oct 2020
13.	Electrical & Computer Engineering	Indian Institute of Information Technology Kottayam (ATAL)	4th to 8th Nov 2020
14.	Artificial Intelligence	Sri Sairam Engineering College. (ATAL)	7th to 11th Dec 2020
15.	FPGA based Digital System Design with HDL (Phase II)	Vel Tech Multi Tech Dr. Rangarajan Dr Saku	8th to 13th Feb 2021
16.	Real time Operating System using QNX	VIT University	27th to 31
17.	Artificial Intelligence	KIIT Deemed to be University (ATAL)	15th & 19th Oct 2020

Online Courses Details:

Online Course	SI. No.	Title	Month&Year
NPTEL	1.	Biomedical Signal Processing	Jan-Apr 2019
	2.	Microprocessor & Microconyrollers	Jan-Apr 2024
	3.	Introduction to Soft Computing	Jan-Mar 2021
	4.	Introduction to Machine learning	
	5.	Ethics in Engineering Practice	Feb-Apr 2025
	6.	NBA Accreditation and Teaching and learning in Engineering (NATE)	Jan-Apr 2025
	7.	Natural Language Processing	Jan-Apr 2025
	8.	Deep Learning	Jan-Apr 2025
	9.	Analog Circuits	Jan-Mar 2025
	10.	Teaching And Learning in Engineering (TALE)	Jan-Feb 2025
	11.	Digital Circuits	Jul-Oct 2024
	12.	Learning Analytics Tools	Jul-Oct 2024
	13.	System Design Through Verilog	Jul-Sep 2024
	14.	Analog Circuits and Systems	Jul-Sep 2024
	15	Data Analytics with Python	Jan-Apr 2024
	16	Microprocessors And Interfacing	Jan-Apr 2024
	17	Python for Data Science	Jan-Feb 2024

	18	Artificial Intelligence : Search Methods For Problem Solving	Jul-Oct 2023
	19	Fundamentals Of Artificial Intelligence	Jul-Oct 2023
	20	Ethics in Engineering Practice	Feb-Apr 2025
	21	NBA Accreditation and Teaching learning in Engineering (NATE)	Jan-Apr 2025
	22	Technical Communication for Engineers (FDP)	Jul-Aug 2025
	23	Introduction to Operating Systems	Jul-Sep 2025
	24	Introduction to Internet of Things(FDP)	Jul-Oct 2025
	25	Patent Drafting for Beginners(FDP)	Jul-Aug 2025
UDEMY	1.	Deep Learning A-Z Hands on Artificial Neural Networks	Nov-14 2019
	2.	Deep learning with Keras and Tensorflow in Python and R	April 13 2020
	3.	Support Vector machines in Python – SVM in Python 2019	April 15 2020
COURSERA	1.	Structuring Machine Learning Projects.	May-5 2020
	2.	Introduction to Big Data	May-18 2020
	3.	AI For Everyone	May-31 2020
FUTURE SKILL	1.	Introduction to Robotic Process Automation	April -2 2020
	2.	Introduction to Artificial Intelligence	April -9 2020

NITTTR	1.	Completed 8 Modules	

Publication in Book Chapters:

NIL

Publication in Journals:

1. Mahalakshmi, J. and Shanthakumari, G., 2017. Automated crop inspection and pest control using image processing. *International Journal of Engineering Research and development*, *13*(3), pp.25-35.

2. IoAT(Internet of Agro Things) BASED AUTOMATIC PEST CONTROLDEVICE FOR SMART AGRICULTURE Aswin B, Srikumar R, Vasanth V, Shanthakumari G DOI: 10.46647/ijetms.2022.v06i04.043

3. Aravind, P., Shanthakumari, G., & Raghunath, D. (2019). Analysing The Quality Of A Fabric Using Arduino Uno. *Think India Journal*, *22*(2), 398-402

4. . Sujatha, C., & Shanthakumari, G. Remote Robotic Arm Control Using LabVIEW.

5. Shanthakumari G Sneha M , Sayi Varsha Vardini S , Sargunavathy R., 2021. Optimized Foot Plantar Pressure Measurement System. *International Advanced Research Journal in Science, Engineering and Technology Volume 8, Issue 6, Pages136-140*

6. Shanthakumari G SG Udhayachandrika N , Koushika Vema , Shalini Kannan. Water Management using Remotely Operated Vehicle for Aquaculture, 2021.. *International Advanced Research Journal in Science, Engineering and Technology Volume 8, Issue 6, Pages136-140*

7. A. Kavin, G.Shanthakumari, 2014, Classification and Prediction of Critical Cardiac Arrhythmias Using Filter Bank and Fuzzy Classification Approach, INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (IJERT) NCACCT – 2014 (Volume 2 – Issue 12),

8. Stroke Analysis using EMG signals SN Ms G. Shantha Kumara, M. Hari haran, J. Ragul International Journal of All Research Education and Scientific Methods

Publication in Conferences:

1. Shanthakumari, G., & Priya, E. (2022). Interpretation of Lung Sounds Using Spectrogram-Based Statistical Features. In *Futuristic Communication and Network Technologies* (pp. 815-823). Springer, Singapore..

2. Shanthakumari, G., & Priya, E. (2022, March). Spectrogram-based detection of crackles from lung sounds. In *2022 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-6). IEEE.

3. Shanthakumari, G., & Priya, E. (2018, December). Performance analysis: Preprocessing of respiratory lung sounds. In *International Conference of the Sri Lanka Association for Artificial Intelligence* (pp. 289-300). Springer, Singapore.

4. Beem, E. S., Shanthakumari, G., Karthik, R., & Devaharsha, C. (2018, February). Kite Power: Production of electricity from the wind current using kites. In *2018 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 363-366). IEEE.

5. Shanthakumari, G., Gayathri, S., Parvathababu, M., Raamkumar, J., & Prajin, E. (2025, April). Lung Disease Diagnosis Through Mel Spectrogram and Acoustic Feature Analysis. In *2025 International Conference on Computing and Communication Technologies (ICCCT)* (pp. 1-8). IEEE.

6. Shanthakumari, G., Vignesh, A., Harish, R., & Karthick, R. R. (2024, April). Advancements in smart agriculture: A comprehensive review of machine learning and IoT approaches. In *2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-6). IEEE.

7. Gayathri, S., Shanthakumari, G., Velvizhi, V. A., Anitha, R., Priyadharshini, B., & Kiruthika, A. (2025, April). Design and Development of IoT-Based Domestic Surveillance System with Real-Time Anomaly Detection and Chatbot Integration. In *2025 International Conference on Computing and Communication Technologies (ICCCT)* (pp. 1-5). IEEE.

8. Shanthakumari, G., Harshavardhan, J., Venkatesh, K., & Saran, S. (2024, October). Advanced Toxic Gas Monitoring and Health Protection System for Sewage Tanks. In *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-6). IEEE.

9. Shanthakumari, G., Soundharya, R., & Ashwini, R. G. (2023, December). Autonomous Surveillance Robot (ASR): A Video Surveillance Rover for Military Applications. In *2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)* (pp. 1-4). IEEE.

Patent Details:

1. A POWER GENERATING KITE SYSTEM- PRODUCTION OF ELECTRICITY FROM THE WIND-202041004990 Issued on Feb 14 2020
2. IoT-Enabled Intelligent Fire Detection and Safety Management System- Application No.202441096106 A
3. Method and System for Self-Organizing Mobile Communication Using Time Division and Duplexing Techniques- Application No.202441101696 A

Additional Details:

Incharge

1. NIRF Innovation SCOPE member
2. NIRF Student Strength SCOPE member
3. Faculty profile
4. SPDP Cell member
5. Criteria 5- NBA
6. Class Co-ordinator (2011 -2015)(2015-2017)(2017-2020)(2019-2023)
7. Lab incharge- LIC Lab
8. Mentor
9. IIC SCOPE