

Name:	 Ms S. Gayathri			
Designation:	Associate Professor / ECE			
Qualification:	B.E., M.Tech., Ph.D. (Pursuing)			
Area of specialization:	Biomedical Signal and Image Processing			
Experience: (As on Dec 2025)	Industrial		Teaching Experience	
	-		16 Years 2 Months	
Number of workshop / FDP attended:	Number of Workshops		Number of FDPs	
	6		15	
Publications:	Conference		Journal	
	National	International	National	International
	3	27	5	3
Patents:	National		International	
	8		-	
Professional Body Membership:	<ul style="list-style-type: none"> Life member in THE INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE) – LM 131467 Associate member in THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE) Annual member, Institute of Electrical and Electronics Engineers (IEEE)-Signal Processing Society (SPS), Engineering in Medicine and Biology Society (EMBS), Industrial Electronics Society (IES), Society on Social Implications of technology (SSIT), 98060079 			
Achievements:	<ul style="list-style-type: none"> Received Research Grant R&D Project code MHD 0154 of Rs.7,00,000 from BIS for a project titled, " Study and comparative analysis of functional and safety requirements of ocular prosthesis". Published 27 papers in IEEE International Conference and Indexed in Scopus. Published 16 UGC Papers. Published 3 Book Chapters. Published 8 Patents. Received 3 Best Paper Award in the IEEE International Conference. As SBC Advisor of Industrial Electronics Society received a Chapter fund (SBCLA) consequently thrice of \$456 in 2023, \$679 in 2024 and \$1000 in 2025. Organized an event in Skill Development club "Skills and Thrill's funded by AICTE - SPICES. Received Nptel Believer, Motivated Learner Certificate in 2025 Acted as an Nptel Mentor in the year 2025. Awarded as Nptel Star in the year 2025. 			

Project Grant:

1. Received **Research Grant R&D Project code MHD 0154 of Rs.7,00,000 from BIS for a project titled, " Study and comparative analysis of functional and safety requirements of ocular prosthesis"**.
2. IEEE IES SBC funded SBCLA 2023 Grant with US \$479.00.
3. IEEE IES SBC funded SBCLA 2024 Grant for the project titled "Leading Innovation: Engineering Solutions for Community Impact" with US \$679.00.
4. IEEE IES SBC funded SBCLA 2025 Grant for the project titled "Empowering the IES Community: Growth, Engagement, and Innovation" with \$1000

Books:**Authored book**

1. Digital Fundamentals and combinational logic circuits, S Gayathri (Author), A.B.S.R.Manohar (Author), S.Prema (Author) and R.Puviarasi (Author) Scientific International Publishing House, ISBN:978-93-5757-880-6 (2023)

Publication in Book Chapters:

2. Ms.K. Jeyapiriya & Ms. S. Gayathri. (2022) "OBJECTIVE OF FEATURE SELECTION TECHNIQUES IN VARIOUS UTILIZATION". RECENT TRENDS IN ENGINEERING AND TECHNOLOGY. ISBN-9788194714989.
3. Ms.K. Jeyapiriya & Ms.S.Gayathri. (2021) "Counting that not counts and not counting that count -Nee for Feature Selection". Management and Engineering Research Tome. ISBN-978-93-89515-20-6.

Publication in International :

4. IMAGE COMPRESSION ALGORITHM FOR ENERGY EFFICIENCY OPTIMIZATION IN WIRELESS SENSOR NETWORKS.
<https://doi.org/10.48047/ecb/2023.12.si12.110>
5. APPLICATIONS OF AI IN AUTONOMOUS SURVEILLANCE ROBOTIC SYSTEM.
<https://doi.org/10.48047/ecb/2023.12.si12.107>

Publication in International Conferences:

6. Gayathri, S., Kumar, C. V., Lalitha, K., Raj, S. K., Arun, G., & Vasanth, S. (2025, December). Verbofix-A Deep Convolutional Framework for Real-Time Stammering Detection and Inclusive Speech Recognition. In *2025 5th International Conference on Mobile Networks and Wireless Communications (ICMNWC)* (pp. 1-6). IEEE.
<https://doi.org/10.1109/ICMNWC66779.2025.11354302>
7. Kadambarajan, J. P., Gayathri, S., Ravikumar, G. K., Tejaswini, G., Venkateswarulu, V. G., & Chowdary, G. C. (2025, June). Machine Learning for Early Detection and Continuous Monitoring of Rheumatoid Arthritis. In *2025 Second International Conference on Networks and Soft Computing (ICNSoC)* (pp. 575-580). IEEE.
<https://doi.org/10.1109/ICNSoC66817.2025.00109>
8. Gayathri, S., Shanthakumari, G., Velvizhi, V. A., Anitha, R., Priyadarshini, 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.
<https://doi.org/10.1109/ICCCT63501.2025.11019793>

9. Gayathri, S., Kadambarajan, J. P., Harita, S., Rakshani, T., & Gayathri, K. (2025, April). Identification of Voice Disorderliness Using Machine Learning Algorithm. In *2025 International Conference on Computing and Communication Technologies (ICCCT)* (pp. 1-6). IEEE.
<https://doi.org/10.1109/ICCCT63501.2025.11019856>
10. 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.
<https://doi.org/10.1109/ICCCT63501.2025.11019006>
11. Velvizhi, V. A., & Anbarasan, M. (2025, April). Real-Time Energy Monitoring for Renewable Power Systems: Enhancing Stability and Efficiency with IoT-Based Wireless Sensor Networks. In *2025 International Conference on Computing and Communication Technologies (ICCCT)* (pp. 1-4). IEEE.
<https://doi.org/10.1109/ICCCT63501.2025.11019895>
12. Gayathri, S., Velvizhi, V. A., Lalitha, K., Anitha, R., Priyadarshini, B., & Kiruthika, A. (2024, October). Advancing Public Premises Surveillance: A YOLO-Based IoT Camera System with CHATBOT Integration. In *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-6). IEEE.
<https://doi.org/10.1109/ICPECTS62210.2024.10780330>
13. Gayathri, S., Priya, E., Manish, M., & Srinivas, P. S. (2024, October). Automated Voice Pathology Diagnosis Through Feature Extraction. In *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-6). IEEE.
<https://doi.org/10.1109/ICPECTS62210.2024.10780102>
14. Gayathri, S., Abhinesh, S. B., Jaivignesh, K., Pavithran, V., Velvizhi, V. A., & Anbarasan, M. (2024, October). Collision Detection and Evacuation Systems for Enhanced Safety. In *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-5). IEEE.
<https://doi.org/10.1109/ICPECTS62210.2024.10779993>
15. Velvizhi, V. A., Anbarasan, M., & Gayathiri, S. (2024, October). Comparative analysis of epileptic seizure detection techniques. In *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-4). IEEE.
<https://doi.org/10.1109/ICPECTS62210.2024.10780133>
16. Velvizhi, V. A., Anbarasan, M., & Pradeep, N. S. (2024, October). Development and Integration of a Dual-Mode Drone-Rover System for Enhanced Search and Rescue Operations. In *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-6). IEEE.
<https://doi.org/10.1109/ICPECTS62210.2024.10780063>
17. Gayathri, S., Valli, C., Yogeshwari, R., Lohitha, L. V., & Hema, S. (2024, October). Gesture-Enhanced Communication Systems for the Deaf and Dumb: An In-Depth Review. In *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-6). IEEE.
<https://doi.org/10.1109/ICPECTS62210.2024.10780357>
18. S. Gayathri and E. Priya, "Spectro-Temporal Based Feature Extraction for Identification of Pathological Voice Signals from Normal Voice Signals," *IEEE*, 2024.
<https://doi.org/10.1109/ICCEBS58601.2023.10448616>
19. S. Gayathri, Velvizhi, V. A., Manish, M., Srinivas, P. S., & Richard, S. S. (2023, December). Automata Bin. In *2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)* (pp. 1-4). IEEE.
<https://doi.org/10.1109/ICCEBS58601.2023.10448985>

20. S. Gayathri, S. Pradeep, and A. A. Aziz, "Image-based plant disease detection using deep learning," in *Proceedings of the IEEE Conference*, 2024.
<https://doi.org/10.1109/ICCEBS58601.2023.10449229>
21. Anitha, R., Priyadharshini, B., Kiruthika, A., Velvizhi, V. A., & Lalitha, K. (2023, December). Design and Development of IoT Camera with CHATBOT for Domestic Surveillance. In *2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)* (pp. 1-5). IEEE.
<https://doi.org/10.1109/ICCEBS58601.2023.10448981>
22. 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.
<https://doi.org/10.1109/ICCEBS58601.2023.10449053>
23. Gunaseelan, N. G., Anbarasan, M., & VA, V. (2022, March). Design of microwave 3-D antenna for brain tumour sensing system. In *2022 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-4). IEEE.
<https://doi.org/10.1109/IC3IoT53935.2022.9767920>
24. S. Gayathri, G. Bhuvana Roshini, A. Mirunalini, and B. Lavanya Sevi, "Eye blink controlled smart wheelchair aiding disabled people," in *Proc. International Conference on Electronics and Sustainable Communication Systems (ICESC)*, 2022, pp. 1–5, IEEE
<https://doi.org/10.1109/IC3IoT53935.2022.9767936>
25. Gayathri, S., & Priya, E. (2022, April). Identification of voice pathology from temporal and cepstral features for vowel 'a' low intonation. In *2022 International Conference on Electronic Systems and Intelligent Computing (ICESIC)* (pp. 345-350). IEEE.
<https://doi.org/10.1109/ICESIC53714.2022.9783484>
26. Zakaria, S., Thanush, S., & Mugilan, M. (2022, November). Voice disorder identification using convolutional neural network. In *2022 1st International Conference on Computational Science and Technology (ICCST)* (pp. 923-927). IEEE.
<https://doi.org/10.1109/ICCST55948.2022.10040283>
27. Gayathri, S., Jeyapiriya, K., Baskaran, M., & Rajesh, S. (2022, August). Communicative guiding system for physically challenged person. In *AIP Conference Proceedings* (Vol. 2520, No. 1, p. 030016). AIP Publishing LLC.
<https://doi.org/10.1063/5.0103245>
28. Karthikayani, K., Elumalai, G., Jeyapiriya, K., Southry, S. S., Gayathri, S., & Balamurugan, A. M. (2022, September). Performance analysis of various segmentation algorithms for microarray images. In *AIP Conference Proceedings* (Vol. 2518, No. 1, p. 070001). AIP Publishing LLC.
<https://doi.org/10.1063/5.0103474>
29. Gayathri, S., Jeyapiriya, K., JeyaPrakash, K., & Lalitha, K. (2021, December). Detection and identification of things for blind people using raspberry PI. In *2021 4th International Conference on Computing and Communications Technologies (ICCCT)* (pp. 194-196). IEEE.
<https://doi.org/10.1109/ICCCT53315.2021.9711820>
30. Baskaran, M., Jeyapiriya, K., & Gayathri, S. (2021, September). Implementation and Investigation of Rectenna for Microwave Applications. In *2021 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES)* (pp. 1-4). IEEE.
<https://doi.org/10.1109/ICSES52305.2021.9633838>

Patent details:

1. Title of the Invention: UNMASKING SILENCE: ADVANCING DYSFLUENT SPEECH UNDERSTANDING WITH NEXT GENERATION TOOLS

Application Number: 202541096455A

Filing Country: India

Filing Date: 07/10/2025

Publication Date: 07/11/2025

Status: Published

2. Title of the Invention: INCENTIVE BASED WASTE MANAGEMENT SYSTEM

Application Number: 202541096851 A

Filing Country: India

Filing Date: 08/10/2025

Publication Date: 07/11/2025

Status: Published

3. Title of the Invention: AUTONOMOUS SURVEILLANCE ROBOT

Application Number: 202541015033A

Filing Country: India

Filing Date: 21/02/2025

Publication Date: 07/03/2025

Status: Published

4. Title of the Invention: AUTOMATA BIN-A DEVICE TO SORT WASTE AND ITS PROCESS THEREOF

Application Number: 202441063644 A

Filing Country: India

Filing Date: 23/08/2024

Publication Date: 30/08/2024

Status: Published

5. Title of the Invention: DESIGN AND DEVELOPMENT OF A YOLOV8 BASED REAL-TIME SURVEILLANCE AND COMMUNICATION SYSTEM FOR PUBLIC PREMISES

Application Number: 202441063670 A

Filing Country: India

Filing Date: 23/08/2024

Publication Date: 30/08/2024

Status: Published

6. Title of the Invention: NOVEL COMMUNICATION SYSTEM FOR DEAF AND DUMB USING GESTURES

Application Number: 202441063656 A

Filing Country: India

Filing Date: 23/08/2024

Publication Date: 13/09/2024

Status: Published

7. Title of the Invention: IMPLEMENTATION OF AN ARDUINO MULTI-NODE SOLAR-POWERED BLE SENSOR FOR MONITORING HUMIDITY AND TEMPER

Application Number: 202341088526 A

Filing Country: India

Filing Date: 23/12/2023

Publication Date: 19/01/2024

Status: Published

8. Title of the Invention: A NOVEL ASSEMBLY HAVING PHYSICAL UPLINK SHARED CHANNEL WITH SWITCHED ANTENNA FREQUENCY DOMAIN RESOURCE ALLOCATION DETERMINATION

Application Number: 202241027478A

Filing Country: India

Filing Date: :12/05/2022

Publication Date: 03/06/2022

Status: Published

9. Title of the Invention: LI-FI Based Stereo Audio Streaming Technology

Application Number: 202041050668A

Filing Country: India

Filing Date: :20/11/2020

Publication Date: 04/12/2020

Status: Published

Seminar/Workshop/Short course Organized:

1. In association with IEEE Industrial Electronics Society and Sairam Innovation Ecosystem organized a two days Bootcamp on “Artificial Intelligence- Deep Learning” on 05.02.2026 and 06.02.2026 for the students of Final year.
2. The IEEE Industrial Electronics Society in association with Department of Electronics and Communication Engineering organized “Evo Edge 2.0- IES Day Second Edition- Empowering the IES Community: Growth, Engagement and Innovation” on 10th and 11th November 2025, Sri Sairam Engineering College.

3. The Department of Electronics and Communication Engineering in association with IEEE, IETE, IEI and ISTE organized a 28th National Level Technical Symposium “Zenista’25- Ticking time, Twists Tomorrow, where Every seconds spark a new Era” on 8th August 2025, Sri Sairam Engineering College.
4. In association with Department of Electronics and Communication Engineering organized a Seminar on “Bridging Barriers with Technology, Inclusion, Independence, Innovation” on 08.10.25, Sri Sairam Engineering College.
5. The Department of Electronics and Communication Engineering in association with IEEE, IETE, IEI and ISTE organized a Department Association Inauguration and Special Address on “Product, Purpose and Progress” on 24.07.2025, Sri Sairam Engineering College.
6. The IEEE Industrial Electronics Society organized a Bootcamp titled “Machine Learning” on 08.04.25 & 09.04.25, Sri Sairam Engineering College.
7. In association with IEEE Industrial Electronics Society and Sairam Innovation Ecosystem organized a two days Bootcamp on “Automation & 3D” on 28.02.2024 and 29.02.2024 for the students of Final year.
8. The IEEE Industrial Electronics Society organized “Evo Edge 1.0- IES Day First Edition-” on 05th and 06th November 2024, Sri Sairam Engineering College.
9. The IEEE Industrial Electronics Society organized a Workshop titled “Mastering Robotics: A Complete Journey from Embedded Electronics to Robot Demonstration on 01.08.24, Sri Sairam Engineering College.
10. The Department of Electronics and Communication Engineering in association with Industrial Electronics Society and Signal Processing Society organized a 5 Day Value Added Course on “Embedded System and IoT with Raspberry Pico and NodeMCU” from 27.11.23 to 01.12.23, Sri Sairam Engineering College.
11. Organized A Distinguished Lecture Program on “Secure and Efficient Edge Computing in High-Performance IoT Environments: Challenges and Solutions” on 13.12.2023 by IEEE Industrial Electronics Society.
12. Organized an Event “Technolix –a quiz contest “on account of World’s Students Day –Dr A.P.J Abdul Kalam’s Birth anniversary, on 6th October 2022.
13. Organized an Events, M-Apps club in association with Skill Development club named “AICTE –SPICES Sponsored Skills ‘N’ Thrills” on 10.10.22 & 11.10.22.

14. Acted as a one of the Organizers in 5 days FDP program on “Artificial Intelligence for Robotics” Sponsored by AICTE Training and Learning Academy (ATAL).
15. Organized a 5day Hands on Workshop on "Robotic System Design" in Collaboration with M/S.Digital Shark Technology pvt.Ltd, Bengaluru under Texas Instruments University Programme from 22.04.2019 to 26.04.2019
16. Organized a 3Day Hands on Workshop on "Rapid Prototyping - IoT and Embedded System Design" in Collaboration with M/S. Digital Shark Technology pvt.Ltd, Bengaluru under Texas Instruments University Programme from 12.11.2018 to 14.11.2018
17. Organized various technical events and competitions on Engineer’s Day on 15.9.2016 for the Department of ECE.

Workshop Details:

1. Attended One Day Workshop on “Digital Personal Data Protection Act (DPDPA) ” organized by SRM Institute of Science and Technology on 27th January 2026.
2. Attended Hands on training in “SDR platform and IoT based wireless sensor networks” Conducted by St.Joseph group of institutions on 25 & 26 May 2018
3. Attended Hands on training in “Rapid Prototyping – IoT and Embedded system design” conducted by Sri Sai Ram Engineering College from 12 to 14 November 2018
4. Attended Workshop on “Artificial intelligence and cognition” conducted by Panimalar Institute of Technology on 4 & 5 November 2015
5. Attended Workshop on “Recent Trends in antennas for multifield applications” conducted by Sri Sai Ram Engineering College on 27 & 28 December-2012
6. Attended Workshop on “Wireless sensor networks and its application” conducted by B S Abdur Rahman University in 2012
7. Attended Workshop on “Embedded system design using PIC Microcontroller” at Sathyabama university on 2011

FDP Details:

1. Attended 6 Days National Level Faculty Development Program on “Generative & Agentic AI-Tools & Demos”, organized by Department of CSE, Sardar Vallabhbhai National Institute of Technology (SVNIT) Technically Co-sponsored by IEEE - Gujarat Section & partnered with Pantech Solutions (India) Pvt., Ltd. from 16 - 21 February 2026.
2. Attended 6 Days Faculty Empowerment programme on “Artificial Intelligence and Machine Learning” organized by Madras Institute of Technology, Anna University, Chennai from 5.02.24 to 10.02.24.
3. Attended a AICTE Sponsored ATAL Faculty Development program on “Quantum Computing and its Future Scope” Sri Sai Ram Engineering College from 18.12.2023 to 26.12.2023.
4. Attended FDP on ‘Deep Learning & its applications” Sri Sai Ram Engineering College from 11.07.2022 to 15.07.2022.
5. Attended SERB Sponsored 2 Day online FDP on “Recent trends in Bio-signal acquisition and research perspectives in Signal analysis” N.S.S College of Engineering from 25.03.2022 to 26.03.2022.
6. Attended ATAL FDP on “Internet of Institute of 29.10.2020 to things (IoT)” Institute of Engineering and technology Lucknow from 29.10.2020 to 02.11.2020
7. Attended AICTE Sponsored FDP on “Feature Analysis Using AL/ ML” Sri Krishna College of Engineering and Technology, from 16.11.2020 to 21.11.2020
8. Attended ATAL FDP on “Artificial Intelligence” National Institute of Technology, Calicut, from 09.11.2020 to 13.11.2020
9. Attended FDP on “Electron Devices, Microprocessor and Image Processing” SRM Valliammai Engineering College from 11.05.2020 to 15.05.2020
10. Attended FDP on “Machine Learning and Data Manipulation using R and SQL” Sri Sairam Engineering College from 30.10.2019 to 06.11.2019
11. Attended FDP on “Robotics” Sri Sairam Engineering College from 13.05.2019 to 18.05.2019
12. Attended FDP on “Engineering Teaching Pedagogy and Teaching Learning Process” Sri Sai Ram Engineering College from 03.12.2018 to 07.12.2018
13. Attended FDP on “Python Programming” Sri Sai Ram Engineering College from 30.10.2017 to 6.11. 2017

STTP Details:

1. Attended 5 Days short term training course on “Machine Learning Algorithms and applications” Indian institute of Information technology, Design and Manufacturing, Kancheepuram. 30.11.2019 to 04.12.2019

Responsibilities:

1. Institute Associate Coordinator for conducting courses by Indian Institute of Remote Sensing (IIRS), Government of India.
2. Acting as IEEE IES SBC Advisor of Sri Sairam Engineering College.
3. II Year ECE Year Coordinator.
4. II Year ECE A Class Coordinator.
5. ECE Department Digital Ambassador (To promote ECE Students and Faculty Achievements in social media Pages).

Additional Details:

1. Awarded with “Certificate of Applied Proficiency” during the Wadhvani Faculty Development program to facilitate the Wadhvani Foundation’s ignite program and its variants, to implement Entrepreneurship to students.
2. Awarded in recognition for the outstanding support to conduct the Drish TI Online Contest by TI University Program from 7.8.2019 to 10.8.2019.