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Achievements:

1. Recipient of **EPICS in IEEE funding of \$5050** Aug 2024 for the proposal Smart Gloves for Enhancing the Livelihood of the Deaf and Mute Persons – India, validated by the review committee at National Institute for Speech and Hearing (**NISH**) impaired Trivandrum
2. **Management Funded 40000 INR** for the Project Semi- Autonomous Rail Rift Revealer
3. Attended the 1 Month (2weeks offline and 2 weeks Online) **CEEE** Program at **IIT Delhi** sponsored by Infosys Foundation and conducted by **AICTE with a fund of 50000INR**
4. Management sponsored up skilling –**PG 6 months Diploma course in IoT and Embedded systems from IIT Jammu**
5. Mentored the Team to **Samsung Semiconductor Chip design contest at IIIT Bangalore** and won the **runner up with the cash award of 20000INR**
6. Mentored the **finalist SIH Team at Galgotia University** in the Hardware Edition category
7. Mentored the Team for **MedTech Hackathon at Andhra Med Tech Zone (AMTZ), Visakhapatnam**, BioNex - A Bio-Electronic Interface Chip.
8. Received **Best project runner up and Best Mentor award** IETE Zonal Seminar (South) & ISF Congress on 26th& 27th 2024 for the work Smart Glove For Enhanced Communication And Assistance For The Deaf-Dumb And Visually Impaired
9. **Funded with 20000INR** for the contribution on Unlocking the potential of 6G –Advances in Computers, Elsevier.
10. Submitted DST funding proposal for the scheme of Advanced Manufacturing Technology (Oct 2021)
11. Submitted proposal for 5Days ATAL/FDP on Data Sciences and Practicing Tools AICTE (Feb 2021)
12. Submitted Research Proposal Scheme in 2017 and Kalam Innovation Award, TNSI, NRDC, ISTE awards, UBA proposal

Journals Published

1. Akilandasowmya, G., & Lakshmi Joshitha, K. (2026). MicroSwin-ESBO: A Swin Transformer Optimized Framework for Facial Micro-Expression Detection and Classification. *International Journal of Software Engineering and Knowledge Engineering*.
2. Srividya, K., & Joshitha, K. L. (2025). ShLSTM: Shepard long short-term memory for early detection of diabetic retinopathy using color fundus image. *Biomedical Signal Processing and Control*, 110, 108261. **(Web of Science)**
3. Joshitha, K. L., & Jayashri, S. (2019). A novel redundant hole identification and healing algorithm for a homogeneous distributed wireless sensor network. *Wireless Personal Communications*, 104(4), 1261-1282. **(Web of Science)**
4. Joshitha, K. L., & Jayashri, S. (2019). Performance analysis for lifetime improvement of a regression based clustered network through cluster member allocation and secondary cluster head selection in a distributed WSN. *Cluster Computing*, 22(Suppl 4), 9805-9814. **(Web of Science)**
5. Joshitha, K. L., & Jayashri, S. (2017). Adaptive Clustering For Enhancement Of Throughput In A Distributed Wireless Sensor Network. *Pakistan Journal of Biotechnology*, 14(Special II), 142-145.
6. Joshitha, K. L., & Gangasri, A. (2017). Performance Improvement Of Clustered Network Through Data Replication And Secondary Cluster Head Selection. *Pakistan Journal of Biotechnology*, 14(Special II), 134-138.
7. Joshitha, K. L., & Jayashri, S. (2017). Prioritization of Coverage Holes in a Location Unaware Distributed Wireless Sensor Network. *Journal of Computational and Theoretical Nanoscience*, 14(10), 5038-5045.
8. Meenalakshmi, M., & Joshitha, K. L. (2013). Microbial fuel cells powered adaptive wireless sensor network for wastewater treatment plants. *Int J Emerg Technol Adv Eng*, 3, 518-522.
9. Vanamalini, T. S., & Joshitha, K. L. (2015). RSSI Aided Cartographic Indoor Tracking System using Wireless Sensor Network. *Int. J. Eng. Res*, 4(03), 394-398.
10. Joshitha, B. L., Sumitha, B., & Rajamani, M. (2019). Plastic waste management. *J. Emerg. Technol. Innov. Res.*, 6(5).
11. Joshitha, L. (2018). A medication self-management system with real-time health monitoring. *International Journal of Engineering & Technology*, 7 (2.33) (2018) 422-425
12. Lakshmi Joshitha, K., & Jayashri, S. (2015). Location free approach for coverage verification in distributed wireless sensor network. *International Journal of Applied Engineering Research*, 10(20), 16084-16090.
13. Joshitha, J. L., Gautham, M., & Vasanth, J. (2017). Automatic Led Solar Powered Street Light Control Based on Climatic Conditions and Vehicular Movement. *European Journal of Applied Sciences*, 9(2), 62-65.

Conference publication:

1. Joshitha, L. (2025, April). Heart Disease Prediction Using Decision Tree Variants: A Comparative Analysis. In *2025 International Conference on Computing and Communication Technologies (ICCCT)* (pp. 1-6). IEEE.
2. Karthikeyan, M., Prabakaran, C., & Sarvesh, V. (2025, April). Automatic Plant Watering and Disease Detection System. In *2025 International Conference on Computing and Communication Technologies (ICCCT)* (pp. 1-5). IEEE.
3. Joshitha, K. L., Subramanian, R. M., & Prasanth, L. (2024, October). Design and Comparison of Activation Functions for the Classification of Cotton Leaf Diseases. In *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-4). IEEE.
4. Vasanthi, A., & Joshitha, K. L. (2024, August). Water body detection utilizing NDWI, NDVI and NMDWI indices in SEN-12 spectral imagery. In *2024 First international conference on electronics, communication and signal processing (ICECSP)* (pp. 1-5). IEEE.
5. Srividya, K., & Joshitha, K. L. (2022, March). A survey on detection of diabetic retinopathy lesions using deep learning. In *2022 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-6). IEEE.
6. Premalatha, S., & Joshitha, K. L. (2022, March). A comprehensive review of early detection of oral cancer using deep learning. In *2022 international conference on communication, computing and internet of things (IC3IoT)* (pp. 1-5). IEEE.
7. Joshitha, K. L., Aravind, E., Akash, S., Suveka, S., Vardhan, J. H., & Siddeshwar, S. A. (2024, April). Design and Development of AI based QR Enabled Pharmaceutical Dispenser. In *2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-6). IEEE.
8. Joshitha, K. L., Madhanraj, P., Roshan, B. R., Prakash, G., & Ram, V. M. (2024, April). AI-FIT COACH- Revolutionizing Personal Fitness With Pose Detection, Correction and Smart Guidance. In *2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-5). IEEE.
9. Joshitha, K. L., Nishanthini, S., Harshini, B. J., & Sadhana, T. (2022, December). Raspberry PI Based Automated Authentication and Monitoring System for The Examination Centers. In *2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-5). IEEE.
10. Praywinsheela, A. G., & Joshitha, K. L. (2024, April). Detection and Performance Improvisation Strategy- Enhancing Primary User Signal Integrity in Noisy Environment. In *2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-6). IEEE.

11. Akilandasowmya, G., &Joshitha, K. L. (2024, April). Emotion recognition from micro-expressions using logistic regression and stochastic gradient descent. In *2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-9). IEEE.
12. Joshitha, K. L., Aravind, E., Akash, B., &Balavishnu, E. (2023, December). GPS enabled short range communication for vehicle tracking and accident alert system. In *2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)* (pp. 01-05). IEEE.
13. Joshitha, K. L., Nishanthini, S., Harshini, B. J., &Sadhana, T. (2022, February). Raspberry Pi based crop and weed classification using Machine Learning Algorithm. In *IOP Conference Series: Earth and Environmental Science* (Vol. 980, No. 1, p. 012029). IOP Publishing. (*UGC care*, Scopus)
14. Joshitha, K. L., Nishanthini, S., Harshini, B. J., &Sadhana, T. (2022, December). Raspberry PI Based Automated Authentication and Monitoring System for The Examination Centers. In *2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-5). IEEE.
15. Joshitha, K. L., &Jayashri, S. (2017, February). Coverage enhancement using fuzzy logic in a distributed Wireless sensor network. In *2017 2nd International Conference on Computing and Communications Technologies (ICCCT)* (pp. 271-276). IEEE.
16. Shiva, R., Vimal, G., Kaviyarasu, M., & Lakshmi Joshitha, K. (2020, December). Intelligent farming using delta robot. In *2020 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)* (pp. 1-5). IEEE.
17. Mahendrababu, K., &Joshitha, K. L. (2014, February). A solution to energy hole problem in Wireless Sensor Networks using WITRICITY. In *International Conference on Information Communication and Embedded Systems (ICICES2014)* (pp. 1-6). IEEE. (*Web of Science*)
18. Joshitha, K. L., &Gangasri, A. (2017, May). On an effort to enhance lifetime of a regression based clustered network using candidate selection. In *2017 International Conference on Trends in Electronics and Informatics (ICEI)* (pp. 809-814). IEEE.
19. Joshitha, K. L., &Jayashri, S. (2013). Modified coverage hole detection algorithm for distributed WSNs. *LNCS. Elseviers*.
20. Joshitha, K. L., Aravind, E., Akash, S., Suveka, S., Vardhan, J. H., &Siddeshwar, S. A. (2024, April). Design and Development of AI based QR Enabled Pharmaceutical Dispenser. In *2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 1-6). IEEE.
21. Joshitha, K. L., &Gangasri, A. (2017, February). Regression based cluster formation for enhancement of lifetime of WSN. In *2017 2nd International Conference on Computing and Communications Technologies (ICCCT)* (pp. 414-419). IEEE.

22. Joshitha, K. L., Jayalakshmi, T., Bhavani, R., &Preethibala, S. (2018, July). Automatic charging of multiple smartphones using light beam. In *2018 IEEE International Conference on System, Computation, Automation and Networking (ICSCA)* (pp. 1-4). IEEE.
23. Joshitha, K. L., &Rithwik, K. V. (2021, December). Installation of automated sericulture functional unit in rural area. In *2021 4th International Conference on Computing and Communications Technologies (ICCCT)* (pp. 43-45). IEEE.
24. Joshitha, K. L., Hareesh, R., Arunachalam, N., Dhinesh, T., &Yashwanth, V. U. (2020, March). Implementation of the anti pilferage and anti leakage system for fuel tankers. In *Proceedings of 2020 5th International Conference on Devices, Circuits and Systems (ICDCS)* (pp. 80-83). IEEE.**(Web of Science)**
25. Dhianeswar, R., Sumathi, S., &Joshitha, K. L. (2018, February). Automatic gas controller. In *2018 International Conference on Communication, Computing and Internet of Things (IC3IoT)* (pp. 215-218). IEEE.
26. Anitha, S., &Joshitha, K. L. Design and Implementation of Application Software for User Friendly Operation of Industrial Robot.International Journal of Data Mining Techniques and Applications (IJDMTA)
Print ISSN:2278-2419
27. Presented the work Waste Management in Railway Coaches at ELITE COM 2025 – IETE 4th National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication and Computers.
28. Presented the paper on Semi-Autonomous rail rift revealer at Karpagam College of Engineering, Coimbatore on 22nd March 2018
29. Presented the work on Automatic Shopping Trolley at the international Conference IC3IOT2020 Sri Sai Ram Engineering College Feb 20-22, 2020
30. Presented the work on Loco Load Test Reuser at the International conference IC3IOT2020 at Sri Sairam Engineering College Feb 20-22, 2020
31. Presented the work on Small Scale Farming using AI at the National Conference on Smart Innovations in Communication and Computing NCSICC'19, Sri Sai Ram Engineering College, Chennai on 5thMarch2019
32. Presented the work on Intelligent System Management Using Power Line Carrier at the National Conference on Advanced Telecommunication 2012
33. Presented the work on Vision Based Positioning System For Coverage Control In Mixed WSN, at the National Conference On VLSI, Embedded ,Communication and Networks,VECAN`2014

Book Chapter

1. Sheela, A. P., Vasanthi, A., Joshitha, K. L., &Ranjana, R. (2025). Unlocking the potential of 6G: From technical foundations to practical applications in edge AI. In *Advances in Computers* (Vol. 139, pp. 89-148). Elsevier(Scopus/ **UGC care**)

Patents Published:

1. Augmented Reality Based Restaurant.FilingNo:202041055464 (published on 01-01-2021)
2. Implementation Of Anti pilferage And Anti leakage System For Fuel Tankers Filing No: 202141032328 (published on 30-07-2021)
3. 2025-Multimodal Smart Glove For Enhancing Communication And Livelihood Of Deaf And Mute Individuals. Filing No: 2025410380316 (Published on 09.05.2025)
4. Fatigue Identification in Driving System Using Learning Algorithm. Filing No: 202541046763 (Published on 06.06.2025)
5. Adaptive Resonant Power Transfer System for Dynamic Solar Integrated Electric Vehicle Charging. Filing No: 202541114484 A (Published on 16.01.2026)

Invited Talk

1. Invited Talk on “Perspectives of 6G towards Next Gen Communications” on Potential Framework on 6G in 5 days Faculty Development Program
2. Lecture on Statistics and Data Visualization tools in R at Sri Sai Ram Institute of Technology on 28.11.2023
3. Guest Lecture on Wireless Technology at Sairam Institute of Technology on 28.10.2021
4. Guest Lecture on Wireless Communication at Sairam Institute of Technology on 28.10.2021
5. Presented guest Lectures at Velammal Engineering College twice (11.9.2015 & 17.3.2015)
6. Presented guest Lectures at M.Kumarasamy College of Engineering Karur.
7. Presented a Guest Lecture at Sri Sairam Institute of Technology, Chennai on Communication Theory.
8. Presented an invited talk on the Hardware Description Language at SRM University

Events Conducted:

1. Guest Lecture program on Introduction to Embedded system Design on 24.04.2024
2. Workshop on Lens and Learn , Photography club event on 09.04.2025 to 11.04.2025
3. Seminar on Non Linear Models in R Programming applications on 13.11.2025
4. Workshop on photography and video editing on 28-30 Jan 2026

Responsibilities

- Captain Internal Examination cell
- Propagator Photography Club
- Institution Innovation council coordinator-Innovation Ambassador
- Certified ISO auditor
- ATAL mentor of Change
- Acted as the Chairman of valuation board

Workshops Attended

Sl. No.	Title	Venue	Month/Year
1.	Workshop On Data Science Using R Programming	Dept of EIE Sri Sai Ram Engineering College	24 th Aug 2021
2.	3-Day online workshop on lab-View	IEEE Communication society Madras section	9 th Aug to 11 th Aug 2021.
3.	Innovation Ambassador Training	MoE's innovation cell & AICTE-Online	30 th June to 30 th July 2021 (1 month)
4.	Training on patent search With E space net	Turnip innovation pvt ltd Mumbai	31 st July 2021
5.	Tinker your idea to next level	Dept of ECE, Sri sairam Engineering college	22 nd May 2021
6.	One Day Workshop On orange Data Mining tool	Sri Sai Ram Engineering College	15 th May 2021
7.	National IP Literacy week, Kalam Program for IP Literacy And awareness	Online Institution Innovation Council	Oct 15 th to 22 nd 2020
8.	Sensor Network And IoT implementation Using open Source Simulator	Kongu Engg college, Erode	Aug 16 th and 17 th 2019
9.	Matlab & Simulink	Online Math work	Aug 3 rd 2019
10.	Three days workshop on internet of Things, Digital Shark technology	Sri Sai Ram Engineering College	Nov 12 th to 4 th 2018
11.	Two Days National workshop on R&D issues	Adhiparasakthi college of engineering, Melmaruvathur	20 th & 21 st Nov 2013
12.	Two days workshop on WSN and Green Computing	Velammal Engineering college	12 st to 13 th Nov 2013
13.	2 days workshop on NS2	MIT campus Anna university	29 th & 30 th Jan 2013
14.	Research challenges in MIMO OFDM Wireless systems	Adhiparasakthi College Of Engineering, Melmaruvathur	9 th Feb 2012
15.	Wireless Sensor Networks Applications and challenges	Prathyusha institute of Technology & Management	11 th & 12 th of Nov 2011
16.	RFID & Sensor Networks Applications	Velammal Engineering College, Chennai	4 th & 5 th July 2011

17.	National Workshop On wireless communication and Radiating Systems	Sri Sai Ram Engineering College	21 st & 22 nd Mar 2011
18.	EDA tools for VLSI and Signal Processing	SSN College of Engineering	15 th Nov to 18 th Nov 2010
19.	Current trends in signal/Image processing	Saranathan College Of Engineering, Tiruchirapalli.	17 th ,18 th June 2010
20.	FPGA based embedded processor overview	CEG campus Anna university	7 TH May 2008
21.	National workshop On Recent Trends In wireless information Network And system	Sri Sai Ram Engineering College	1 st Feb 2008
22.	Workshop on matlab and Its Applications	Sri Sai Ram Engineering College	26 th to 29 th June 2007
23.	Workshop on networks & Security	Sri Sai Ram Engineering College	22 nd Sep 2006
24.	Recent trends in communication engineering(SSRTCE)	Shanmugha college of engineering- Trichy	8 th May to 21 st May 2000

Faculty Development / Short Term Training Program

Sl.No.	Title	Venue	Month/Year
1.	Future-Ready Antenna Design: Cutting-Edge Solutions For 6g And Beyond	Care College Of Engineering, Trichy	21 st to 25 th April 2025
2.	Perspectives Of 6g Towards Next-Gen Communications	Sri Sai Ram Engineering College Chennai	07 th to 11 th April 2025
3.	5days Atal FDP On Artificial Intelligence And Machine Learning	IIT Raipur	4 th to 8 th Oct 2021
4.	5days Atal FDP On predictive Modelling using Data – Science techniques	IIT Guwahati	6 th to 10 th Sep 2021
5.	5 Days FDP On Recent Advances In Antennas for Wireless Communications	Bapatla Engineering college, Andhra pradesh	27 th to 31 st July 2021

6.	Webinar On Introduction to Deep learning for processing and Analysis Of X-Ray imaging data	Science & Humanities/ Sri Sai Ram Engineering College Chennai	14 th July 2021
7.	International workshop on Natural Inspired computing applied To Engineering"	IEEE CIS Madras Chapter In association With Sri Sai Ram Engineering College	23 rd to 26 th July 2021
8.	Innovation Ambassador(IA) Training Program	Ministry Of Education's Innovation cell and AICTE	30 th June to 31 st July 2021
9.	5 Days Virtual FDP On research Perspectives on Data Science	Dept of IT/Sri Sai Ram Engineering College	28 th June to 2 nd July 2021

10.	FDP On “Dsp Builder, AI, Fpga Accelerator Using Intel Fpga	VIT chennai	25-th to 26 th June 2021
11.	Two-Day FDP On Advances In Photonics And Fiber Optics Technologies	IETE photonic society Madras	21 st June to 22 nd June 2021
12.	6 days FDP on machine learning techniques.	Sri Sai Ram Engineering College/Ece	07 th June to 12 th June 2021
13.	5 Days FDP On Open source Tool; For Data analytics	Sri Sai Ram Engineering College/Cse	24 th to 28 th May 2021
14.	5days AICTE workshop on inculcating universal human values on technical Education	AICTE online	17 th to 21 st May 2021
15.	Two Weeks STTP One merging Trends And challenges in VLSI mixed signal processing for fourth industrial revolution	Kongunadu college of engineering and technology	01 st to 3 rd Mar 2021

16.	SSTP On AUV& Smart systems	Dept of ECE/SSN college of Engineering	29 th Jan & 30 th Jan 2021
17.	ATAL FDP on Artificial intelligence for robotics	K.Ramakrishnan college of Engineering, Trichy	18 th to 22 nd Jan 2021
18.	STTP On Augmented reality And Virtual reality	IFET College Of Engineering villupuram	14 th to 30 th Dec 2020
19.	AICTE Sponsored STTP On cooja Network simulator	IFET College Of engineering villupuram	7 th Dec to 12 th Dec 2020
20.	ATAL FDP on Artificial intelligence for robotics	Sri Sai Ram Engineering College	17 th to 21 st Dec 2020
21.	Perspective In Machine intelligence and computing	Sairam Institute of Engineering	27 th to 31 st Oct 2020
22.	ATAL FDP on artificial intelligence	Indian Institute of Technology, Patna	19 th to 23 rd Oct 2020
23.	ATAL FDP On Electrical And computer engineering–Machine Learning And artificial intelligence	Indian Institute Of Information Technology, Kottayam	4 th to 8 th Nov 2020
24.	Matlab And Optimization techniques for researchers	Christ University, Bangalore	28 th Nov 2020
25.	Remote sensing applications In agricultural water management	Indian Institute of remote Sensing, Dehradun	3 rd to 7 th Aug 2020
26.	AICTE recognized faculty Development programme	Low power VLSI design	20 th to 24 th April 2020
27.	IPR, Entrepreneurship, and start-Ups	IIC online session	28 th april To 22 nd May 2020

28.	AICTE recognized faculty Development programme	Wellness And Stress management during the pandemic	27 th April to 1 st May 2020
29.	AICTE recognized faculty Development programme	Communication and presentation skills	18 th to 22 nd May 2020
30.	AICTE recognized faculty Development programme	Research trends in VLSI design	25 th to 29 th May 2020
31.	AICTE recognized faculty Development programme	Image and embedded processing	11 th to 15 th May 2020
32.	Smart perspective of IoT on 5g Communication-Practical approach	Panimalar Engineering college	8-11-19to21-11-2019
33.	FDP on Machine learning and Data manipulation Using R and SQL	Sri Sairam Engineering college Chennai	30 th Oct to 6 th Nov 2019
34.	FDP On Engineering Teaching Pedagogy And effective Learning process	Sri Sairam Engineering college Chennai	3 rd to 7 th Dec 2018
35.	National Level FDP On role Of Academic Excellence in Development of world class Higher Learning institution and faculties	Sri Sairam Engineering college Chennai	12 th december2012
36.	Staff development program in recent developments in computing	Sri Sai Ram Engineering College	26 th april2010
37.	Research challenges in wireless sensor Networks (RCWSN)	Anna University, MIT campus	3 rd March2010
38.	Art of journal and thesis writing	Sri Sai Ram Engineering College	19 th Jan 2012
39.	Staff Development Programme On Instructional Design & Delivery	Sri Sai Ram Engineering College	12 th May 2008
40.	Induction Training Program For Young Teachers	Shanmugha college of engineering-Trichy	1 st to 17 th Nov 2000

