SRI SAI RAM ENGINEERING COLLEGE,CHENNAI-44

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name & Photo :	Mr.M.BALAMURUGAN
Designation:	Associate Professor
Qualification :	M.Tech.,(Ph.D)
Area of Specialization :	Machine Learning
Experience :	Teaching : UG: 23 YEARS
No. of workshop / Conferences / FDP attended:	4/22/24
Publications :	International Journal : 12 Scopus Indexed::23 Conferences :18 National :4 International :21
Research Guidance :	NIL

General :	•Symposium Coordinator(2009-2010) •CSI Coordinator(2007-2009) •Lab In charge(2009,2018-2024) •Extra & Co – Curricular Coordinator(2011- 2012) •ClassCoordinator(2012-2014) •SymposiumCoordinator(2013) •Project Coordinator(2020) •Placement Coordinator(2012-2026) •Class Coordinator(2017-2020) •Symposium Coordinator(2019)

Staff Achievements:	• Produced Centum results in the following subjects: • Mobile Computing(Twice) • DBMS(twice) • High Speed Networks • Operating Systems • SPM • Cyber Forensics • Advanced Computer Architecture • Computer Networks • Software Design • OOAD • Network Design and Technologies • NPTEL Course Certified • NITTTR - Module 8 Completed • Published paper in reputed International Journals. • Presented papers in various National and International Conferences. • Published Indian Patents • Published Book Chapters • Published Book • Life Member, IST. IEEE Member

Sr.,No.,	Institution	Position Held	Duration of Service	
			From	To
1	Sri Sairam Engineering college	Lecturer	25.06.2007	31.07.2010
2	Sri Sairam Engineering college	Associate Professor	1.08.2010	Till Date
3	SRM Arts and Science College	Lecturer	25.07.2005	20.06.2007
4	Patrician College of Arts and Science	Lecturer	02.06.2003	30.04.2005
	Total Experience		23 Years	

National Conference:
 1. Presented paper in National conference - NACIS '09 held in Madha Engineering College, titled "An Enhanced MAC scheme for voice and data traffic in wireless ad-hoc network"
2. Presented paper in National conference- NCSICC'18) – Organized by Dept of CSE,Sri Sairam Engineering College Chennai on 27th March 2018,titled "Highly sensitive-PinAccessibility For Atm Using Human Body Communication"
3. Presented paper in National conference- NCSICC'19) – Organized by Dept of CSE,Sri Sairam Engineering College Chennai on 5th March 2019,titled Sustainable healthcare framework for elderly assistance in wireless body area network (wban)
4.Heart Disease Prediction Using Machine Learning Model, ICON '22 , 28.4.22 , held at Dr.MGR university

International Conference:

1. Presented paper in International conference - ICICT '09 held in TCS, Sipcot, titled "Handoff   in Fourth Generation Mobile Networks".
2.Presented paper in International conference – ICACT '13 held in J.K.K.Nattraja College of Engineering and technology titled "Detecting Behavioral Characteristics of Spam Messages Using Filtering Techniques".
3.Presented paper in International Conference on Electrical, Communication & Computing (ICECC2014) held on March 13th & 14th, 2014 in Tagore Engineering College titled "Secret Key Extraction Using Channel Impulse Response".
4. Presented a paper in International Conference on Emerging Trends in Engineering and Technology at Chennai on 5th April 2015,titled "Advance Security in Mobile AdHoc Network using Direct and Indirect Observation.

5. Presented paper in International Conference on Computational Science and Technology titled ``"Tumor Detection in Prostate Organ using Canny Edge Detection Technique" Organized by CSE dept, Sri Sai Ram Engineering College, 9th and 10thMarch 2017.

6. Presented paper in International Conference on Computational Science and Technology titled"Efficient Semantic Personalized Search Using RDF in Web Services" Organized by CSE dept, Sri Sai Ram Engineering College, 9th and 10thMarch 2017.

7. Presented paper titled "ENHANCED SMART VIDEO SURVEILLANCE SYSTEM FOR THEFT DETECTION IN SENSITIVE AREAS",International Conference on Computational Science and Technology(ICCST2020),5.03.2020 & 6.03.2020

8.Presented a paper titled"SKIN DISEASE DETECTION USING IMAGE PROCESSING WITH SVM ",International Conference on Computational Science and Technology (ICCST2020), 5.03.2020 & 6.03.2020.

9.Presented Paper Titled "Prediction of Chronic Disease in Kidneys Using Machine Learning Classifiers" ICCST 2022,9th and 10th November 2022.

11. Presented a paper titled "Analysis of Machine Learning Techniques-A Survey " on 28th Jan at IAIM '22 -Sathyabama University

12.Presented a paper titled "Smart Dine-In - A personalized food recommendations system" ICCEBS '23, 14th and 15th december 2023.

13.Presented a paper titled "Sniffing Detection Using Machine Learning" ICCEBS '23, 14th and 15th december 2023.

14. Presented a paper titled "An Intelligent Tool to Predict and Analyze Students' Stress for Their Academic Growth" ICCEBS '23, 14th and 15th december 2023.

15. **Published Paper Titled" AN EARLY DIABETES DISEASES PREDICTION USING MACHINE LEARNING WITH OPTIMAL FEATURES SELECTION"** in *2023 national Conference on Research Methodologies in Knowledge Management, Artificial Intelligence and Telecommunication Engineering, RMKMATE 2023*

16. Presented Paper Titled "Code smell detection using hybrid machine learning algorithms" in 2023, 5th International Conference on Inventive Research in Computing Applications (ICIRCA)

17. Presented Paper Titled " Prediction of Coronary Artery Calcium with CT-Images using Deep Learning", 2024 International Conference on Integration of Emerging Technologies for the Digital World (ICIETDW)

18.Presented Paper Titled ".Enhancing Agricultural Decision-Making Using Machine Learning: Variety Selection and Yield Prediction for Agriculture Culture Improvement",International Conference on Recent Trends in Artificial Intelligence and IoT,2024

19..Presented Paper Titled "Real-Time Bidirectional Sign Language Translation Using MobileNet and Tensorflow Lite",2025 International Conference on Computing and Communication Technologies (ICCCT)

20..Presented Paper Titled "Real-Time Bidirectional Sign Language Translation Using MobileNet and Tensorflow Lite",2025 International Conference on Computing and Communication Technologies (ICCCT).

21Presented Paper Titled"Enhancing Meal Recommendation Algorithms: A Contextual Approach to Machine Learning Calibration",2025 International Conference on Computing and Communication Technologies (ICCCT)

International Journals:

1. Published Paper in International Journal of Engineering Research in Computer Science and

Engineering (IJERCSE) Vol 2, Issue 4, April 2015 titled "Advance Security in Mobile Ad Hoc Network Using Direct and Indirect Observation"

2. Published Paper in International Journal on Applications in Information and Communication Engineering titled"An Expectation Based Privacy Conserving for OSN",2016

3.Published Paper Titled "Energy-efficient and corrective algorithm for improving stability in wireless sensor networks" in *Indian Journal of Public Health Research and Development*, 2018.

4.Published Paper Titled " Anonymous location-support and self-reliance routing protocol for manet" *In Indian Journal of Public Health Research and Development*, 2018

 5.Published Paper Titled **"**Reliable link and mobile-based optimized routing scheme for manets" in Indian Journal of Public Health Research and Development,2018

   6..**Published Paper Titled "**Highly sensitive-pin-accessibility for ATM using human body communication",International Journal of Engineering and Technology,2018

7.Published a paper in International Journal of engineering and Technology, Volume 7, 2018, special issue 39, titled "Sugar Level Detection Using Thermal Images".

8..Published Paper Titled "Efficient healthcare framework for senior benefaction",*International Journal of Innovative Technology and Exploring Engineering*, 2019.

  9..Published Paper Titled "An efficient mechanism to detect skin disease using SVM" in *Journal of   Green Engineering*, 2020.

  10..Published Paper Titled "Blockchain Technology Empirical Studies on the Demand of Distributed Network" in *Journal of Physics,2021*
11. Published Paper Titled"Accurate Prediction of Coronary Artery Disease Across Various Age Groups Using Machine Learning Algorithms" in Cardiometry Journal,December 2022.
12.Published paper Titled "Hybrid optimized temporal convolutional networks with long short-term memory for heart disease prediction with deep features" in Computer Methods in Biomechanics and Biomedical Engineering

Book Chapter:

1.Title" Inflexible Wireless Health Surveillance Sensor Shields for Health-Care Apps Associated with the IoT-Renewable Energy with IoT and Biomedical Applications" -Book name " Renewable Energy with IOT and BioMedical Applications"

2.Title "Supervised Analysis of Twitter Data Used Supervised Machine Learning Approaches"-Book name-"Machine Learning and Applications"

3.Title "Design Architecture for Fault Detection of marine Engineering by employing CAN network Communication"-Book name-Recent Trends in Intelligent Automation and Computing Techniques"

4 Title ".Enhancing Agricultural Decision-Making Using Machine Learning: Variety Selection and Yield Prediction for Agriculture Culture Improvement" **Part of the book series:** Communications in Computer and Information Science,2025,Springer

Books:

1. Title "Deep Learning models and applications", Published by Academic Guru Publications,Published on 2022
2. Title "Internet Of Things", Published by JSR Publications,Published in 2024

Patents:
1. Published Indian patent on 16.10.2020 the innovation titled "An Automatic Hospital Stretcher That Monitors Vital Data's of The Patients". (Application No 202041044322).
2. Published Indian patent patent on 1.1.2021 the innovation titled "Emotion Recognition Fitness Assistance for Fitness Blenders using Mel Frequency Ceptral Coefficients (MFCC) and spectral Modulation features". (Application No 202041056021).
3.Published Indian patent on 19.02.21 application no. 202141005842 on 11/02/2021 titled" Voice Based Alerting and Assisting Tool for Visually Challenged."
4.Published Indian patent patent on 16/10/2020 the innovation titled "Machine Learning Based Techie Safety Belt to Prevent the Sleepiness of Drivers". (Application No 202041044323)
5.Published Indian patent on 14.10.2022 the innovation titled "Design system of AI-powered technology analyzes and annotates X-rays for dentists". (Application No 202241057059)
6.Published Indian patent on 19/08/2022 the innovation titled "Design system of IoT Driven Smart Carbon Monitoring Using AI".(Application No 202241045444)
7.Published Indian patent on 05/08/2022 the innovation titled "Design an IoT-driven system uses deep learning for wind-induced pressure prediction on tall buildings"(Application No202241044519)
8.Published Indian patent on 23/06/2023 the innovation titled"IoT-driven Artificial Intelligence-Based Actual Structure-Health"(Application No 202341034151)
9.Published Indian patent "ELDERLY DAILY LIVING TASK ASSISTANCE SYSTEM USING IOT AND MACHINE LEARNING",(202441035311),3.05.2024

Design Patent.

1.Registered design patent" HEALTH CARE DATA RECORDING DEVICE USING BLOCKCHAIN",24/03/2024,No., 411480-001

Workshop/Seminar:

1. Participated in National Seminar on "Research Methodologies in Next Generation Wireless Network Using OPNET" held in Sri Sai ram Engineering College on August 2010.

2. Attended a one day workshop on "An Awareness program on Matlab" at Sri Sai ram Engineering college (30th December 2014).

3. Attended Seminar on "REST API and Application Development ", held in Sri Sairam Engineering on 2 nd Sep 2015.

4. Participated in Workshop on Analytics and Data Management-Insights on data science, 20.10.2020 to 21.10.2020, SRM Institute of science and technology,Vadapalani.

Staff Development Programs:

1. Participated in Staff Development Program on "IT in Telemedicine and E-Health" held in Sri Sai ram Engineering College in July 2007.

2. Participated in Staff Development Program on "Instructional Design & Delivery" held in Sri Sai ram Engineering College on Jan 2008.

3. Participated in Staff Development Program on "Soft Computing With AI" held in Sri Sai ram Institute of Technology" on Sept 2011.

4. Participated in Staff Development Program on "Web Services" held in Sri Sai ram Engineering College on November 2011.

5. Participated in Staff Development Program on "MATLAB Applications in Electrical Engineering" held in Sri Sai ram Engineering College in March 2012.

6. Participated in FDP on BIG DATA organized by TCS , Chennai on 17th Dec 2013 7. Participated in FDP on Recent Trends on Cloud Computing and Virtualization held in Sri Sai ram Engineering College, Nov 2013

8. Participated in FDP on Big Data and IOT held in Sri Sai ram Engineering College, Feb 2014.

9. Participated in Cloud Computing organized by TCS, Chennai on 5th May 2014. 10. Participated in a

Workshop on Cloud computing and Big data on 9th and 10th Dec 2014.

11. Participated in FDP on Cloud Computing and Virtualization held in Sri Sai ram Engineering College, May 2015

12. Participated in FDP on Grid and Cloud Computing held in Sri Sai ram Engineering College, August 2016

13. Participated in FDP on Data Science and Big Data Analytics Conducted by ICT ACADEMY at Sri Sairam engineering college, September 2017

14. Participated in FDP on Artificial Intelligence & advanced Machine learning using data science AICTE (S.A .Engineering college) Chennai, 22.11.2019 to 5.12.2019

15. Participated in Online FDP 0n Python 3.4.3 Adhiparasakthi Engineering College in association with IIT Bombay 16.04.2020 to 22.04.2020.

16. Participated in AICTE STTP on Internet of Things and its Applications, 26.10.2020 to 31.10.2020 by SRM VEC.

17. Participated in FDP on Disruptive Technologies 18.05.2020 To 20.05.20,3 days Jeppiaar Engineering College, Chennai.

18. Participated in FDP "Introduction to Data Science",18.05.2020 To 22.05.20,5 days,Guntur Engineering College, Karnataka.

19. Participated in FDP "Latest Trends and Challenges IT Industry" 15.06.2020 To 20.06.20, 6 days R.M.D Engineering College, Chennai.

20. Participated in "Virtual Global Summit on AI" held from 5.10.2020 to 9.10.2020,5 days conducted by NITI Aayog.

21. Participated in ATAL FDP "Data Sciences" 16.11.2020 to 20.11.2020,5 days,Indian Institute of Information Technology, Design & Manufacturing Kancheepuram.

22. Participated in ATAL FDP "Machine Learning" 7.12.2022 to 11.12.2020, 5 days,RMK Engineering College

23. Participated in ATAL FDP "Cyber Security" ,30.11.2020 to 4.12.2020,5 days,SVCE

24. Attended the virtual global summit on Artificial Intelligence: Responsible AI for Social Empowerment (RAISE2020) -October 5th to 9th 2020

25. Participated in FDP "Communication and Computation",13/07/2022 - 19/07/2022 at Dr.MGR University

26. Participated in FDP" Innovative and Exploratory Ideas in Data Science",02/01/2023 - 06/01/2023,Sri Sairam Engineering College.

27. Participated in FDP "Advanced Techniques in Computing Sciences",19/11/2022 - 23/11/2022,Saveetha College.

28.Participated in FDP "CHAT GPT and AI Tools for Academician",27/11/2023 - 01/12/2023,Asset College of science and Technology

29.Participated in FDP" Quantum Computing" 27/05/2024 - 01/06/2024,Sri Sairam Engineering College.

30.Participated in FDP "ICT for Teaching and Learning",10/06/2024 - 14/06/2024,NTTTR

31.Participated in FDP "OFFENSIVE SECURITY",30/06/2025 - 05/07/2025,Sri Sairam Engineering College.