

**SriSaiRamEn**  
**gineeringCollege**

**DepartmentofCSE (Cyber security)**

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| <b>Name:</b> <b>Mr.M.Subramanian</b>          |                  |
| Designation:                                  | Associate Professor  |
| Qualification:                                | M.E.   |
| Area of Specialization:                       | Wireless Networks & Communication Engineering  |
| Experience:                                   | Teaching-14yrs<br><br>Industry/Polytechnic:NA  |
| Number of Workshops/Conferences/FDP Attended: | WORKSHOPS-5<br>FDP-18  |
| Publication:                                  | Journal:<br>National: --1<br>International:07<br><br>Conference:<br>National:2<br>International:13 |

**Experience:**

| S.No | Name of the Institution                                | Designation                | Department                                  | Period of Experience     |
|------|--|----------------------------|---|--------------------------|
| 1.   | Sri Sairam Engineering College, West Tambaram, Chennai | Assistant Professor Gr.III | Electronics and Instrumentation Engineering | (July 2011-May 2025)     |
| 2.   | Sri Sairam Engineering College, West Tambaram, Chennai | Assistant Professor Gr.III | CSE (Cyber security)                        | (May 2025- July 2025)    |
| 3.   | Sri Sairam Engineering College, West Tambaram, Chennai | Associate Professor        | CSE (Cyber security)                        | (August 2025- Till date) |

**Theory Subjects Handled:**

|   |   |
|---|---|
| Discrete Time system & Signal Processing    | Microprocessors and Electrical Measurements |
| Microcontrollers Linear Integrated Circuits | Biomedical Instrumentation                  |
| Operating systems                           | Industrial Data Networks                    |
| Embedded Systems                            | Principles of Management                    |
| Modern Electronic Instrumentation           |   |
| Digital Signal Processing                   |   |
| Medical Signal and Image Processing         | Analog Electronic Circuits B                |
| Cyber security essentials                   | Computer Architecture                       |
| Product Development Lifecycle               | Internet of Things                          |

**Book Chapter Publication:**

Contributed a book chapter publication entitled Ensemble Machine Learning Algorithms for Predication and Classification of Medical images for the book Artificial Intelligence for Smart Applications published on Dec 2022.

**National Initiative for Technical Teachers Training (NITT):**

Successfully completed all eight modules of the AICTE-sponsored National Initiative for Technical Teachers Training (NITT) and received the AICTE Certification in February 2023.

**NPTEL Domain certification:**

Successfully completed all academic and assessment requirements for the SWAYAM-NPTEL Domain Certification in Data Science (Computer Science) during April 2025.

**Certificate in Rural Governance & Local Administration:**

Successfully completed the Certificate in Rural Governance & Local Administration offered by the Indian Institute of Skill Development Training, focusing on governance and administrative frameworks of Panchayat Raj Institutions, completed in Dec 2025.

**AICTE-QIP Postgraduate Certification Program:**

Successfully completed one-semester Hybrid AICTE-QIP Postgraduate Certification Program on “Intelligent IoT with 5G and Beyond Use Cases” offered by the Department of Electronics and Communication Engineering, National Institute of Technology, Warangal, during the period July–December 2025.

**UG projects Guided:**

| S.No | Title of the Project work   | Period of Guidance        |
|------|---|---------------------------|
| 1.   | Emergency alert and monitoring of heart rate and driver's fitness for heart patient while driving | December 2012 to May 2013 |
| 2.   | PLC based control protection and Interlocking of DSS Compressor                                   | December 2013 to May 2014 |
| 3.   | Microprocessor based wheel run out measurement system for commercial vehicles                     | December 2013 to May 2014 |
| 4.   | Real time energy management algorithm for wireless charging of electric vehicle for charging park | December 2014 to May 2015 |

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| 5. | Centralized maintenance and monitoring of utilitiescorridor                    | December2015toMay2016     |
| 6  | SmartSafeguarddeviceforfisherman boats   | December2016toMay2017     |
| 7  | Security and Health Monitoring System of baby in theIncubator                  | December2017toMay2018     |
| 8  | Chainsnatchingdetectionsafetysystem  | December2018toMay2019     |
| 9  | Automatic closing of intravenous drip controller and alteringsystem            | December2018toMay2019     |
| 10 | DetectionandsegmentationofGlaucomausingRetinalFundusImage                      | December2019toMay2020     |
| 11 | DigitalTripletofaIndustrialMultistageCentrifugalPump                           | December2020toMay2021     |
| 12 | Soil IdentificationUsingImageProcessing  | December2021toMay2022     |
| 13 | Design and Development of an Autonomous pesticides spraying agricultural drone | December 2022 to May 2023 |
| 14 | IoT-Enhanced Quality Bread Assurance System (IQBAS)                            | April 2021- May 2024      |
| 15 | AI BASED WAREHOUSE MANAGEMENT SYSTEM   | April 2022 - May 2025     |

### **WorkshopsAttended:**

- AttendedtwodaysNationalWorkshopon“LabVIEWBasedSystemDesignforMultidisciplinaryResearchApplication”,organizedbyKCGCollegeofTechnology,Karapakkam,Chennai,Tamilnaduduring19<sup>th</sup>&20<sup>th</sup>June2015.
- Attended three-day workshop on PLC, SCADA and DCS from 23.7.18 to 25.7.18 organized byElectronicsandInstrumentation Engineering,SriSairamEngineeringCollege,Chennai.
- AttendedaTwo-Dayworkshopon“MachineLearningtechniquesforbuildingIntelligentsystems” during 27<sup>th</sup>-28<sup>th</sup> September 2019 held at Dept of IT, SSN College of Engineering,Chennai.
- Completed Faculty Development Workshop on “Product Engineering for Real Life Problems”heldatIITMadrasResearchPark,Chennaifrom28.9.2022to30.9.2022.
- Attended a workshop on Synthesis of Nano Materials using Electro chemical methods, Characterization and applications held on 26.7.2024

### **FDPs/SDPsAttended:**

- AttendedaNationalLevel-Faculty Developmentprogramme on“TeachingExcellence inEngineering and Management curriculum” organized by Sri Sairam Institute of ManagementStudies,SriSairamEngineeringCollege,Chennaiheldon20<sup>th</sup>&21<sup>st</sup>June,2016.
- Attended Faculty Development Training programme on “EE6403-DISCRETE TIME SYSTEMS&SIGNALPROCESSING”,organizedbytheCentreforFacultyDevelopment,AnnaUniversity,Chennai atVelammal EngineeringCollege from18<sup>th</sup>to24<sup>th</sup>December2015.
- AttendedISO9001:2015 QualityManagementSystemandAuditTrainingduring8<sup>th</sup>June2018.
- Attended Two-day Faculty development program on Teaching Techniques conducted by ICTAcademy on11<sup>th</sup>and12<sup>th</sup>February 2019atBSAbdurRahmanInstituteofScienceandTechnology.
- AttendedFive-day Faculty development program on Entrepreneurship CareerDevelopmentProgramheldfrom8<sup>th</sup>to12<sup>th</sup>April2019heldatSriSairamInstituteofManagement Studies, Chennai.

- Attended a One-week FDP on "Artificial Intelligence" during 5.12.2019 to 11.12.2019 held at Dept of EEE, Sri Sairam Engineering College, Chennai.
- Participated in the AICTE Recognized Faculty Development Programme on Neural Network and CNN Conducted by Curriculum Development Centre Department from 20/04/2020 to 24/04/2020 (One Week) at NITTTR, Chandigarh
- Participated in the AICTE Recognized Faculty Development Programme on Latest Wireless and Computing Technologies Conducted by Electronics and Communication Engineering Department from 14/04/2020 to 18/04/2020 (One Week) at NITTTR, Chandigarh
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Artificial Intelligence" from 2020-11-23 to 2020-11-27 at Central Institute of Technology.
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Design thinking" from 2020-12-14 to 2020-12-18 at Graduate School of Management Studies, GTU.
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Electrical & Computer Engineering" from 2021-1-4 to 2021-1-8 at National Institute of Technology Raipur.
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Internet of Things (IoT)" from 2020-11-2 to 2020-11-6 at SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF ARTS AND SCIENCE.
- Participated in ISTE Sponsored Five Days Virtual FDP conducted by Dept. of EIE, Sri Sairam Engineering College on the topic "Bio-inspired Learning" held from 20-12-2021 to 24-12-2021.
- Participated in Five Days Virtual FDP conducted by Dept. of ECE, R.M.K. College of Engineering on the topic "Recent Advances in Artificial intelligence and IoT" held from 02-01-2023 to 06-01-2023.
- Completed NPTEL-AICTE FDP on the course "Python for Data Science" held between Jan-Feb 2024
- Successfully completed the Faculty Orientation Programme for delivering the IGNITE Entrepreneurship Course, conducted by the Wadhwani Entrepreneur Network (NEN), Wadhwani Foundation, during the period 23 May 2024 to 05 July 2024.
- Participated in Five Days Virtual FDP conducted by Dept. of BME, Rajalakshmi Engineering College on the topic "Exploring wearable tech and AI innovations for personalized healthcare" held from 03-06-2024 to 07-06-2024.
- Participated in Professional Development Programme on "AI applications in Electrical and Electronics Engineering" conducted by National Institute of Technical Teachers training and Research, Chennai held from 10-06-2024 to 14-06-2024.

#### Publications:

| S. No | Paper Title  | Journal / Conference Details  | Publication Details (Year, DOI, Pages)          |
|-------|--|---|---|
| 1     | A User-Level Tool for Inferring Network Policy of ISP                          | National Conference on Emerging Trends in Computer Applications and Management      | Conference Paper, 2011                          |
| 2     | QoS Scheduling in Wireless MAN   | IJCA Journal  | Article, 2012                                   |
| 3     | Microcontroller Based Wheel Run Out Measurement System for Commercial Vehicles | Second National Conference on Intelligent Control and System Dynamics (NCICSD-2014) | Conference Paper, 2014                          |
| 4     | SMELLR – Food Freshness Detection Using Machine Learning                       | Journal of The Gujarat Research Society   | Article, 2019                                   |
| 5     | Cathartic Bot for Hospital Applications  | International Journal of Recent Technology and                                      | Article, 2019, DOI: 10.35940/ijrte.d5245.118419 |

| S. No | Paper Title  | Journal / Conference Details   | Publication Details (Year, DOI, Pages)  |
|-------|--|--|---|
|       |  | Engineering (IJRTE)  |   |
| 6     | Chain Snatching Detection Safety System  | International Journal of Research in Engineering, IT and Social Science                        | Article, 2019   |
| 7     | Security and Health Monitoring System of the Baby in Incubator                                 | International Journal of Engineering and Advanced Technology (IJEAT)                           | Article, 2019, Vol. 8, pp. 3582–3585, DOI: 10.35940/ijeat.F9353.088619        |
| 8     | Voltage Sag Compensation Using Dynamic Voltage Restorer  | International Journal of Engineering and Advanced Technology (IJEAT)                           | Article, 2019, Vol. 8, pp. 3571–3574, DOI: 10.35940/ijeat.F9351.088619        |
| 9     | Automatic Closing of Intravenous Drip Controller and Alerting System                           | 9th International Conference on Science and Innovative Engineering                             | Conference Proceedings, 2019  |
| 10    | Digital Triplet of an Industrial Multistage Centrifugal Pump                                   | International Conference on Computing and Communications Technologies (ICCCT-2021)             | Conference Paper, 2021, pp. 438–443, DOI: 10.1109/ICCCT53315.2021.9711888     |
| 11    | Digital Triplet of an Industrial Multistage Centrifugal Pump                                   | 4th International Conference on Computing and Communications Technologies                      | Conference Paper, 2022  |
| 12    | DC-DC Converters Based Integration of Grid Stability Estimation for PV Systems                 | International Conference on Sustainable Computing and Data Communication Systems (ICSCDS-2022) | Conference Paper, 2022, pp. 891–898, DOI: 10.1109/ICSCDS53736.2022.9760810    |
| 13    | Deep Learning Techniques in Skin Cancer Detection: A Survey                                    | International Conference on Computational Science and Technology (ICCST-2022)                  | Conference Paper, 2022, pp. 378–381, DOI: 10.1109/ICCST55948.2022.10040424    |
| 14    | IoT-Enhanced Quality Bread Assurance System (IQBAS)  | Intelligent Computing and Control for Engineering and Business Systems (ICCEBS-2023)           | Conference Paper, 2023, DOI: 10.1109/ICCEBS58601.2023.10448554                |
| 15    | AI Based Warehouse Management System   | ICCEBS-2023  | Conference Paper, 2023, DOI: 10.1109/ICCEBS58601.2023.10448946                |
| 16    | Development of Interactive Boolean Algebra Lesson Using Unreal Engine 5                        | ICCEBS-2023  | Conference Paper, 2023, DOI: 10.1109/ICCEBS58601.2023.10449239                |
| 17    | Deploy Machine Learning Model for Effective Bank Telemarketing Campaign                        | IEEE ICDCECE-2023  | Conference Paper, 2023, DOI: 10.1109/ICDCECE57866.2023.10150462               |
| 18    | Melanoma Skin Cancer Detection Using CNN-RELM Model  | ICEARS-2023  | Conference Paper, 2023, pp. 1239–1245, DOI: 10.1109/ICEARS56392.2023.10085489 |
| 19    | Fuzzy Logic-Based Cluster Formation and Optimised Routing for MANETs in Environment Protection | Journal of Environmental Protection and Ecology  | Article, 2023, Vol. 24, pp. 1900–1909   |
| 20    | Multi-Class Classification of Skin Cancer Using Hybrid Inception-Residual Network              | International Journal of Intelligent Systems and Applications in Engineering                   | Article, 2024, Vol. 12, pp. 810–822   |
| 21    | Smart Skin Cancer Diagnosis Using  | International Conference   | Conference Paper, 2024, DOI:  |

| S. No | Paper Title   | Journal / Conference Details   | Publication Details (Year, DOI, Pages)                         |
|-------|---|--|--|
|       | SCA-RELM  | for Innovation in Technology (INOCON-2024)   | 10.1109/INOCON60754.2024.10511420                              |
| 22    | Automatic Early Skin Cancer Detection Using MLBP and Regularized ELM              | International Conference on Intelligent Computing and Knowledge Extraction (ICICKE-2025) | Conference Paper, 2025, DOI: 10.1109/ICICKE65317.2025.11136648 |
| 23    | Automatic Early Skin Cancer Detection using MLBP and Regularized Extreme Learning | International Conference on Intelligent Computing and Knowledge Extraction (ICICKE-2025) | Conference Paper, 2025, DOI: 10.1109/ICICKE65317.2025.11136648 |

**Patents:**

| S. No | Patent Title  | Status    | Filing Date | Publication Date |
|-------|---|-----------|-------------|------------------|
| 1     | Mouse with Integrated Fingerprint Scanning Unit   | Granted   | 10-08-2021  | 09-02-2023       |
| 2     | Smart Driver Guidance System for Indian Roads   | Published | 02-07-2020  | 10-07-2020       |
| 3     | Automated Safety System for Driver and Pillion Rider in Two-Wheeler   | Published | 03-10-2020  | 09-10-2020       |
| 4     | Artificial Intelligence Based Approach to Predict the Impact of Breast Cancer Using WSN and Image Processing Techniques     | Published | 03-12-2022  | 30-12-2022       |
| 5     | Intelligent Approach to Positioning of Wi-Fi Mesh Routers for Improved Quality of Service                                   | Published | 04-12-2023  | 05-01-2024       |
| 6     | IoT-Enhanced Quality Bread Assurance System (IQBAS)   | Published | 23-08-2024  | 13-09-2024       |
| 7     | Advancing Pedagogy Through Information and Communication Technology (ICT): The Potential of Mentoring and Mirrored Practice | Published | 03-05-2024  | 10-05-2024       |
| 8     | Artificial Intelligence and Machine Learning: A Model for Enhancing Faculty Performance Reliability                         | Published | 03-05-2024  | 10-05-2024       |
| 9     | AI BASED WAREHOUSE MANAGEMENT SYSTEM  | Published | 16/04/2025  | 02/05/2025       |
| 10    | Thermoelectric Waste Heat Recovery in Spacecraft Nozzle   | Published | 28/05/2025  | 20/06/2025       |