




# Sri SAI RAM ENGINEERING COLLEGE

An Autonomous Institution | Affiliated to Anna University & Approved by AICTE, New Delhi  
 Accredited by NBA and NAAC "A+" | An ISO 9001:2015 Certified and MHRD NIRF ranked institution  
 Sai Leo Nagar, West Tambaram, Chennai - 600 044. [www.sairam.edu.in](http://www.sairam.edu.in)



Founder Chairman : MJF. Ln. Leo Muthu

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| <p><b>Name:</b> T.Mangayarkarasi</p>                         |  |  |
| <p><b>Designation</b></p>                                    | <p>Associate Professor /Head of the Department</p>                                 |  |
| <p><b>Qualification</b></p>                                  | <p>UG</p>  | <p>B. Tech. (Instrumentation) (2003)</p>                                     |
|  | <p>PG</p>  | <p>M.E., (Electronics &amp; Control) 2007</p>                                |
|  | <p>Ph.D.</p>   | <p>Pursuing (Medical Image Processing using Machine Learning Algorithms)</p> |
| <p><b>Area of Specialization</b></p>                         | <p>Machine Learning, Medical Image Processing<br/>Sensors and Instrumentation</p>  |  |
| <p><b>Experience</b></p>                                     | <p><b>Teaching- 23 Years</b></p>   | <p><b>Industry: Nil</b></p>  |
| <p><b>Number of Workshops/ Conferences/ FDP Attended</b></p> | <p>FDP</p>   | <p><b>24</b></p>   |
|  | <p>Workshops</p>   | <p><b>10</b></p>   |
|  | <p>Conferences</p>   | <p><b>14</b></p>   |
| <p><b>Publication</b></p>                                    | <p>International Journal</p>   | <p><b>12 Scopus,1-WoS</b></p>  |
|  | <p>National Journal</p>  | <p><b>03</b></p>   |
|  | <p>International Conference</p>  | <p><b>06</b></p>   |
|  | <p>National Conference:</p>  | <p><b>04</b></p>   |
| <p><b>Membership</b></p>                                     | <p><b>Senior Memeber -IEEE ,ISA, IETE, ISTE</b></p>                                |  |
| <p><b>Research Guidance:</b></p>                             | <p>UG Projects – 75</p>  | <p>PG Projects- 01</p>   |

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| <b>Patent Published</b>  | <b>08</b>  |
| <b>Staff Achievement</b> | Won best teacher award – For Excellence in Teaching Service from LIONS Club OF MMS in the year 2006  |
|                          | Women’s Educational Achievers Award-2015- for service in Teaching Field- awarded by KALVI CHUTAR   |
|                          | Won KALVI SEMMAL AWARD-2017 from KAVIYARASAR KALAI TAMIL SANGAM  |
|                          | Excellence for Women in R&D-Awarded by International Journal of MC Square Scientific research Jan 2021   |
| <b>Resource Person</b>   | Delivered a Guest Lecture on Artificial Intelligence for Future to students of Sri Kumararani Meena Muthiah College of Arts and Science College  |
|                          | Handled a session for AICTE sponsored STTP on Sensor Interfacing and Controller Implementation in Engineering Systems- Saveetha Engineering College, Chennai   |
|                          | Handled a session for AICTE Sponsored Two Weeks FDP on Machine Learning Techniques for Imaging and Health care with Python- Title- Ultrasound Diagnostic Methods, Imaging and Research Prospective at Sairam ICE |
|                          | Delivered a Guest Lecture -Recent trends and Applications- Sensor Interfacing in LabView Environment to ICE Students   |

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| <b>On-line certification courses</b>   | NITTTR - ALL 8 Modules   |
|  | NPTEL- over 6 Courses  |
|  | Coursera- UCI- Introduction to Internet of Things and Embedded Systems                   |
|  | Coursera- Deep Learning.Ai- AI for Everyone  |
|  | Coursera- University of Michigan-Programming for Everybody (Getting Started with Python) |
|  | Future Skills-Simplilearn- Introduction to RPA   |
|  | Future Skills-Simplilearn- Introduction to IoT   |
|  | Future Skills-Simplilearn- Introduction to Project Management                            |
|  | Tata Steel- E-learning Program on PLC'S  |
|  | Udemy- Learn Image Processing and GUI's using MATLAB                                     |
|  | Udemy- Hand's On Python and R in Data Science  |
|  | <b>Award Winning Projects</b>  |
| Kerala Govt.Best Project award-2005  |  |
| “Design of MEMS Based Self-Powered Piezo Resistive Tyre Pressure Sensor & MATLAB Based Simulation of Tyre Pressure Monitoring System”- Project –first Prize- Project exhibition 2014 |  |

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|   | <p>“Maternal Svaasthya care”-Project Won -2<sup>nd</sup> Prize in ISTE Model Presentation-2018</p>   |
|   | <p>“ Brain Pressure Analysis”- Project-First Prize in Project Exhibition 2018</p>  |
|   | <p>“Design of Fuzzy Controlled Industrial Wax Moulding Unit using LABVIEW”- Project-second Prize in Project Exhibition 2020</p>                    |
| <p>General</p>  | <p>ATAL MENTOR of Change by Atal Innovation Mission-Govt.of India</p>  |
|   | <p>Steering Committee member for International and National Conferences</p>  |
|   | <p>Co-Ordinator for establishment of Adavanced Virtual Instrumentation Lab – 15 Lakhs fund from AICTE Modrob Scheme.</p>                           |
|   | <p>Co-Ordinator for Anna University sponsored FDP-Biomedical Instrumentation- Fund from Anna University Rs.32,000/-</p>                            |
|   | <p>R&amp;D initiative with CSIR, IGCAR Kalpakkam,</p>  |
|   | <p>EC member for ISA- South India Section till 2012</p>  |
|   | <p>Coordinator for the S2T-Schols towards Technology Programme-an intiative with the funding of TNSCST-Govt.of TamiNadu for the year 2018,2019</p> |
|   | <p>Team Lead for SAIMUTHAMIZH MADRAM-Tamil Literary club of Sairam Institutions</p>  |
| <p>Instrumental in establishing Industry – Institute Partnership for ICE department through various Industry linked Programmes like Guest Lecture, Seminars, Industry based consultancy, Projects, Industrial visits and MoU’</p> |  |

**Experience:**

| S. No | Name of the Institution                                | Designation         | Department                          | Period of Experience               |
|-------|--|---------------------|-------------------------------------|------------------------------------|
| 1.    | Sri Sairam Engineering College, West Tambaram, Chennai | Lecturer            | Instrumentation and Control Engg    | 5 yrs 8 months (Nov2000-July 2006) |
| 2.    | Sri Sairam Engineering College, West Tambaram, Chennai | Senior Lecturer     | Instrumentation and Control Engg    | 3 yrs (Aug2006-July 2009)          |
| 3.    | Sri Sairam Engineering College, West Tambaram, Chennai | Associate Professor | Instrumentation and Control Engg    | 14 yrs (Aug2009-till date)         |
| 4.    | Thangavelu Engineering College, Chennai                | Lecturer            | Electronic and Instrumentation Engg | 1 yr (Dec 1999-oct 2000)           |

**Workshop/Conferences/FDP:****Attended:**

- ATAL Online FDP on “Control Systems and Sensors Technology” Manipal Inst.of Technology Jan 2021
- ISA webinar- “IoT and Cloud Technologies Revolutionizing Healthcare”-Jan 2021
- ATAL Online FDP on “Wearable Devices” Kongu Engineering College- Sep 2020
- ISA webinar-“ Functional safety in Chemical Process Industries”- April 2020
- Three Days Workshop on “MATLAB based System Design” –Sep 2019
- Five Days FDP on “Artificial Intelligence”- Sri Sairam Engineering College-Dec 2019
- Faculty Training Programme on “NANO Instrumentation Systems and Biomedical Nanotechnology” B.S.Abdur Rahman Crescent University- Nov 2017

- IEEE-Workshop on “Emerging Trends and Future Perspective in Image Processing and Computer Vision” Jan 2017
- KCT- Industry- Academia- INSTRUMENTATION MEET 2016- March 2016
- Attended 3<sup>rd</sup> WOSA- outcome based Accreditation – March 2016
- FDP- “Innovations in Research and Projects”- TCS Hyderabad- June 2016
- Technical talk on “Advanced Process Control for Process Industries”-Sep 2016
- IEEE-Workshop on “Emerging Trends and Future Perspective in Image Processing and Computer Vision” Jan 2015
- Workshop on “Recent Developments in Medical Image Processing “SSN Engineering College 2014
- Workshop on “MEMS and NEMS- Fundamentals,Design and Application”Dec 2013- IIT Hyderabad
- FDP- Emotional Intelligence –CTS,Chennai- April 2013
- Workshop on “ART OF JOURNAL AND THESIS WRITING” – JAN 2012
- Workshop on MEMS software- August 2011
- Workshop on “Introduction to Comsol Multiphysics Version 4.2” August 2011
- CSIR Sponsored Workshop on “SMART MEMS AND SENSOR SYSTEMS Dec 2010
- Seminar on “Safety Integrity a life cycle Approach”- IIT MSDRAS- Nov 2010
- Workshop on “Biomedical Signal and Image Processing” Sep 2010
- Workshop on “ Micro Electro mechanical system “ SRM university ,Aug 2009
- Workshop on “ Virtual instrumentation – LABVIEW based machine vision and embedded applications” ,Easwari Engineering College, Feb 2008
- Workshop on “Relevance of Instrumentation and Automation in today’s world” organized by ISA south India section during JAN 2008
- STTP in “Recent trends in Bio-medical Instrumentation “, SRM University , 2005
- Workshop on “Recent trends in Process Automation”, St.Joseph College of Engineering , 2004
- Workshop on “Advances in Process control and Instrumentation”, Easwari Engg. College,2004

- Workshop on “ DSP and Embedded Systems”- Feb 2004
- Workshop on “ Virtual Instrumentation ,Lab View and Embedded system- July 2003
- Workshop on “Effective Teaching” August 2002
- Seminar on “IT in IT” – July 2002
- Workshop on “Teaching Technology and Counseling Skill” Feb 2001

**Organised:**

- Department National Conferences- 2013 and 2014
- ISA Students MEET and Leadership meet- 2010 and 2011
- Workshop on “PLC based Industrial Automation”, July 2009
- Seminar on “Role of Instrumentation in Automation industries” , July 2009
- Seminar on “Detailed Engineering in Instrumentation and Control”, Sep 2009
- Workshop on “Electronics Design and Automation “ , Aug. 2009
- Faculty development program on “Biomedical Instrumentation “Sponsored by Centre for Faculty Development, Anna University, Chennai during winter 2007.

**Publications:- Total 23 Journal Publications**

**Google Scholar id-**<https://scholar.google.com/citations?user=14gMnoQAAAAJ&hl=en>

**Scopus Id-**<https://www.scopus.com/authid/detail.uri?authorId=56907019500>

**Web of Science -**<https://www.webofscience.com/wos/author/record/2377911>

[https://vidwan.inflibnet.ac.in/profile/182280#other\\_information\\_panel](https://vidwan.inflibnet.ac.in/profile/182280#other_information_panel)

<https://sairam.irins.org/profile/182280>

**JOURNALS:**

1. “Asthmatic Severity Analysis From Capnogram Signal Vol 7, Issue 14, 2020- Journal of critical reviews, doi: 10.31838/jcr.07.14.218 ISSN- 2394-5125

2. "Pulmonary Fissure Detection And Classification Of Lung CT Images Using SVM Classifier "Vol 7, Issue 14, 2020- Journal of critical reviews, doi: 10.31838/jcr.07.14.21 ISSN- 2394-5125
3. "Development of smart data acquisition and monitoring system for maternal health care"- Test Engineering and Management-Dec 2019
4. "Breast cancer detection using machine learning", International Journal of Innovative Technology and Exploring Engineering-Sep 2019
5. "PNN-based analysis system to classify renal pathologies in Kidney Ultrasound Images"- IEEE Xplore Digital Library- ISBN: 978-1-5090-6220-1, April 2017
6. "Development of patient assistive tool for the detection of abnormalities"- Indian Journal of science and technology -Vol-8(24)pp.1-5-e-ISSN:0974-5645-p-ISSN: 0974-6846- Sep-2015
7. "Novel method of vibration measurement using MEMS accelerometer"- C.I.I.T Journal- ISBW: 978-1-4675-2248-9- April-2012
8. Automatic Detection of hand tremor using microaccelerometers, SSEC TECH Journal-2011, Page no 67-75

**PAPER PRESENTATION IN CONFERENCES- NATIONAL AND INTERNATIONAL:**

1. 10<sup>th</sup> ICCI-SEM Conference 2018 –“ Brain pressure analysis using back propagation neural network"- Kuala Lumpur, Malaysia-Sep 2018
2. 6th International Conference on Chip, Circuitry, Current, Coding, and Combustion & Composites – 2018- “Non Destructive testing of fruits quality using stationary wavelet transform and Support vector machine"- Sri Sairam college of Engineering, Bengaluru, Karnataka-28<sup>th</sup> and 29<sup>th</sup> Nov 2018
3. Presented paper titled “ Texture Feature based Classification of Dermatological Diseases” in first International Conference on Instrumentation ,Electrical and



Electronics Engineering” organized by EIE- Saveetha Engineering College, March 31<sup>st</sup> 2017

4. Presented a Paper titled “ Design and analysis of Diaphragm Element for Piezoresistive Micro Pressure Sensor”- National conference “ICIA 14- KCT-March 2014
5. Presented a paper titled “Analysis of Simple Structure for Silicon Capacitive Micro Accelerometers”- National Conference on Instrumentation- CSIO- Oct 30- Nov 2012
6. Presented paper titled “Labview based Vibration Analysis of Electrical machine using MEMS Accelerometer”, in national conference on New Avenues in sensors and automation (NASA 12) organised by department of Electronics and Instrumentation Engineering March 2012
7. “A Novel method of vibration measurement using MEMS accelerometer” (ICCCE-12), Departments of computer science and engineering, Information technology and Electronics and Instrumentation engineering, at Dr.MGR Educational and Research Institute University, Chennai, 06<sup>th</sup> -09<sup>th</sup> April 2012

