# Sri Sai Ram Engineering College

| Name: S.PREMALATHA                                 |  |
|--|--|
| Designation:                                       | Associate Professor  |
| Qualification:                                     | M.E  |
| Area of Specialization:                            | COMPUTER AND COMMUNICATION   |
| Experience:  | Teaching- 14.2 yrs   |
|  | Industry/Polytechnic: NA   |
| Number of Workshops/ Conferences/<br>FDP Attended: | WORKSHOPS-10<br>FDP-15   |
| Publication:                                       | Journal:<br>National: 0<br>International: 3<br>Conference:   |
|  | National: 05<br>International: 16  |
| Research Guidance:                                 | Guided 14 UG projects till date.   |
| General:   | <ul> <li>Secured University Rank I (Gold medal) in P.G.</li> <li>Hockey Player (National Level)</li> </ul>   |
| Staff Achievement                                  | <ul> <li>Achieved 100% results in the following subjects.</li> <li>Transducer Engineering</li> <li>Industrial Instrumentation – I</li> <li>Industrial Instrumentation – II</li> <li>Modern electronic Instrumentation</li> <li>Power plant Instrumentation</li> <li>Professional ethics in Engg</li> <li>Analytical Instruments</li> <li>Principles of Management</li> <li>Fiber optics &amp; Laser Instruments</li> </ul> |

| S. No | Name of the Institution                                      | Designation         | Department                                 | Period of<br>Experience       |
|-------|--|---------------------|--|-------------------------------|
| 1.    | Sri Sairam Engineering<br>College, West<br>Tambaram, Chennai | Associate professor | Electronics and<br>Instrumentation<br>Engg | (September 2010-till<br>date) |

#### **Theory Subjects Handled:**

- Transducer Engineering
- Industrial Instrumentation I
- Industrial Instrumentation II
- Modern electronic Instrumentation
- Power plant Instrumentation
- Professional ethics in Engg
- Fiber optics and Laser Instrumentation
- Analytical Instruments
- Principles of Management
- Electrical Measurements
- Embedded Systems
- Computer architecture

#### **BOOK CHAPTER:**

• Contributed Book Chapter in Management and Engineering Research Tome.

# PATENT FILLED:

- SMART DRIVER GUIDANCE SYSTEM FOR INDIAN ROADS
- A COMPUTER TABLE WITH ADJUSTABLE HEIGHT Design patent

# **NPTEL CERTIFICATES:**

- Ethics in Engineering Practice
- Sensors and actuators
- Fiber optics
- Bio medical signal processing
- Bio medical Nano technology

# ATAL FDPS:

- "Augmented Reality (AR)/ Virtual Reality (VR)" from 2020-11-23 to 2020-11-27 at Guru Nanak Dev Engineering College, Ludhiana.
- "Sensors Technology" from 2020-9-21 to 2020-9-25 at National Institute of Technical Teachers Training and Research Chandigarh.
- "Design thinking" from 2020-12-14 to 2020-12-18 at Graduate School of Management Studies,

- "Bio signal Processing using AI" from 2023-02-02-2023-02-07 to 2023-02-17-2023-02-21 at AGNI COLLEGE OF TECHNOLOGY
- "Artificial Intelligence" from 2020-12-7 to 2020-12-11 at Sri Sairam Engineering College.
- "Artificial Intelligence and Machine Learning for Healthcare" from 13/12/2021 to 17/12/2021 at College of Engineering Pune.

#### **NITTTR Module**

• COMPLETED ALL 8 MODULES

# UG projects Guided:

| S. No | Title of the Project work   | Period of Guidance |
|-------|---|--------------------|
| 1.    | Identification and Analysis of Oscillations in Control loops                                    | April 2011         |
| 2.    | Prescription Drug Abuse Control System Using Smart<br>Card                                      | April 2012         |
| 3.    | Real Time Virtual Dressing Room   | April 2013         |
| 4.    | Vehicular Accident Prevention Using Inter Vehicle<br>Communication                              | April 2013         |
| 5.    | Assessing the Performance of Sensors Using PLC and Lab view                                     | April 2013         |
| 6.    | Smart Eye Using Ultrasonic Sensor in Electrical<br>Vehicle for Differently Able                 | April 2014         |
| 7.    | Automatic Park and Retrieve Assist system Control<br>Technology Based on RTOS and Android Smart | April 2015         |
| 8.    | Assistive Text Reader for Blind People  | April 2016         |
| 9.    | Computer Aided Diagnosis for Breast Cancer  | April 2017         |
| 10.   | Smart Switching Solutions Using Wi-Fi and cloud   | April 2018         |
| 11.   | Automation of Coal Sorting and Metal Detection using PLC and SCADA                              | April 2019         |
|       | Classification Of Skin Lesion And Cancer Using Fast Fuzzy<br>C Means Clustering                 | April 2019         |
| 13.   | Discernment Of Cancer In Buccal Cavity  | April 2020         |
| 14.   | Multi-Way Switching System Using IoT  | April 2021         |
| 15.   | A Machine Learning Model For Early Detection Of Oral<br>Cancer                                  | April 2022         |

| Lymphoblastic Leukemia using CNN models | 16. | An Efficient Detection and Classification of Acute<br>Lymphoblastic Leukemia using CNN models | April 2023 |  |
|---|-----|---|------------|--|
|---|-----|---|------------|--|

#### Workshops Attended:

Attended workshop on "Modern Tools for Intelligent Instruments" conducted by Sathyabama University on 16<sup>th</sup> &17<sup>th</sup> Feb 2008.

Attended workshop on "Computer Graphics and Image processing techniques in Medical Imaging "conducted by VIT University on 26<sup>a</sup> &27<sup>a</sup> Feb 2010

Attended Workshop on "Emerging Trends and Future perspective in Image Processing and Computer Vision" conducted by Sri Sairam Engineering college on 4<sup>th</sup> to 6<sup>th</sup> Jan 2017.

#### **FDPs/SDPs** Attended:

Attended FDP on" Control system engineering" conducted by Rrase College of Engineering on 8<sup>th</sup> to 15<sup>th</sup> December 2014.

Attended FDP on "Teaching Excellence in Engineering & Management Curriculum" conducted by Sri Sairam Institute of Management Studies on 20<sup>th</sup> & 21<sup>st</sup> June 2016.

Attended SSTP on "Embedded Controller and Real time Operating system and Wireless Network in Automation" conducted by IIT Madras on 19<sup>th</sup> to 24<sup>th</sup> March 2018.

Attended FDP on "Energy Storage and Conversion Technologies" Conducted by SSN College of Engineering on 15<sup>th</sup> and 16<sup>th</sup> November 2018.

#### **Publications:**

#### International:

| S. No | Paper Title   | Journal Details   | Publication details<br>(Vol/Edition/Year and<br>month of publication) |
|-------|---|---|---|
| 1.    | Computer Aided Diagnosis For<br>Breast Cancer                                       | International Journal of<br>Science and Innovative<br>Engineering &<br>Technology (IJSIET). | Vol. 3 May issue 2017<br>ISBN 978-81-904760-9-6                       |
| 2     | "Smart Switching Solutions<br>Using Wi-Fi & Cloud with<br>Onboard Status"           | Jour of Adv Research in<br>Dynamical & Control Systems                                      | Vol. 10, 09-Special Issue, 2018<br>Accepted: Oct 04, 2018             |
| 3     | "Analysis Of Image Features<br>For Efficient Classification Of<br>Thyroid Diseases" | Test Engineering management   | September October 2019 ISSN<br>0193-4120 pg no 1-08                   |

#### **Conference proceedings**

| S. No | Title of the paper   | Conference Details  | Month/Year<br>of publication |
|-------|--|---|------------------------------|
| 1.    | "Analysis of image features for<br>classification of Thyroid Diseases"               | National Conference on<br>"Embedded, Microwave & Integrated<br>Technologies – EMIT' 10"Conducted<br>by Saveetha Engineering college on<br>12 <sup>th</sup> March 2010.                      | March 2010                   |
| 2.    | "Segmentation and Classification of<br>Thyroid Diseases using Ultra sound<br>Images" | National Conference on "Signal<br>Processing, Communication and<br>Networking (NCSCN 2010)<br>Conducted by Sri Venkateswara<br>college of Engineering on 30- 31 <sup>st</sup><br>March 2010 | March 2010                   |
| 3.    | "Computer Aided Diagnosis For<br>Breast Cancer"                                      | International Conference on Science<br>and Innovative Engineering<br>Conducted by Jawahar Engineering<br>College on 2 <sup>nd</sup> April 2017  | April 2017                   |
| 4.    | "Smart Switching Solutions Using<br>Wi-Fi & Cloud with Onboard Status"               | National Conference on "Advanced<br>Signal Processing, Communication &<br>Networking (ASPCN'18) Conducted<br>by PSNA College of Engineering on<br>02.03.18.                                 | April 2018                   |

| 5.  | "Segmentation of Skin Lesion and   | National Conference on "Smart                               | April 2019 |
|-----|------------------------------------|---|------------|
|     | Cancer Using Fast Fuzzy C means    | Innovations in Communications and                           |            |
|     | Clustering"                        | Computing (NCSICC'19) Conducted                             |            |
|     |                                    | by Sairam Engg college on 05.03.19.                         |            |
|     |                                    |   |            |
| 6.  | "Automation of Coal Sorting and    | ISSN: 0374-8588   | 2019       |
|     | Metal Detection using PLC and      | Volume 21 Issue 17, December                                |            |
|     | SCADA",                            | 2019,UGC JOURNAL,Pages 2026                                 |            |
|     |                                    | -2031   |            |
| 7.  | "Automatic Detection Of Skin       | Ninth National Conference On Recent                         | April 2020 |
|     | Lesion And Cancer"                 | Advancements in Signal Processing                           |            |
|     |                                    | and Communication   |            |
|     |                                    | (NCRASPC – 2020) Conducted by                               |            |
|     |                                    | R.M.K Engg college on 17.02.20                              |            |
| 8.  | "Discernment Of Cancer In Buccal   | 8 <sup>th</sup> International conference on                 | April 2020 |
|     | Cavity."                           | contemporary Engineering and                                |            |
|     |                                    | Technology conducted by Prince Shri                         |            |
|     |                                    | Venkateshwara padmavathy Engg                               |            |
|     |                                    | College on 14 <sup>th</sup> and 15 <sup>th</sup> March 2020 |            |
| 9.  | "Segmentation Of Skin Lesion And   | Solid State Technology, Vol. 63 No. 2s                      | 2020       |
|     | Cancer Using Fast Fuzzy C Means    | (2020) Pages 4061 – 4069, Publisher                         |            |
|     | Clustering"                        | http://solidstatetechnology.us/index.ph                     |            |
|     |                                    | p/JSST/article/view/3049                                    |            |
| 10. | Infection Prevention and Control   | 2021 4 <sup>th</sup> International Conference on            | 2021       |
|     | Using Self Sterilizing Door Handle | Computing and Communications                                |            |
|     | for Covid"                         | Technologies (ICCCT),18 February                            |            |
|     |                                    | 2022,DOI:   |            |
|     |                                    | 10.1109/ICCCT53315.2021.9711780,                            |            |
|     |                                    | Publisher: IEEE   |            |
| 11. | Multi-Way Switching System Using   | 4 <sup>th</sup> International Conference on                 | 2021       |
|     | IoT"                               | Computing and Communications                                |            |
|     |                                    | Technologies (ICCCT),18 February                            |            |
|     |                                    | 2022,DOI:   |            |
|     |                                    | 10.1109/ICCCT53315.2021.9711792,                            |            |
|     |                                    | Publisher: IEEE   |            |
| 12. | Comprehensive Review of Early      | International Conference on                                 | 2022       |
|     | Detection of Oral Cancer Using     | Communication, Computing and                                |            |
|     | Deep Learning"                     | Internet of Things, IC3IoT 2022, Year                       |            |
|     |                                    | – 2022 ,DOI:  |            |
|     |                                    | 10.1109/IC3IOT53935.2022.9767966,                           |            |
|     |                                    | Publisher: IEEE   |            |

| 13. | Analysis of Mineral Density in Bone   | International Conference on                          | 2022      |
|-----|---------------------------------------|--|-----------|
|     | Using Deep Learning and Smart         | Communication, Computing and                         |           |
|     | Tracking System"                      | Internet of Things, IC3IoT 2022, Year                |           |
|     |                                       | - 2022,  |           |
|     |                                       | DOI:   |           |
|     |                                       | 10.1109/IC3IOT53935.2022.9767963,                    |           |
|     |                                       | Publisher: IEEE                                      |           |
| 14  | Smart Diagnosis of Disease Using      | 8 <sup>th</sup> International Conference on          | 2022      |
|     | Machine Learning",                    | Advanced Computing and                               |           |
|     |                                       | Communication Systems                                |           |
|     |                                       | (ICACCS),07 June 2022,DOI:                           |           |
|     |                                       | 10.1109/ICACCS54159.2022.978507                      |           |
|     |                                       | 1,Publisher: IEEE                                    |           |
| 15. | Design of a Hybrid Model for          | International Conference on Power,                   | 2022      |
|     | Controlling Flow Rate Using           | Energy, Control and Transmission                     |           |
|     | Venturimeter                          | Systems (ICPECTS)                                    |           |
|     |                                       | DOI: 10.1109/ICPECTS56089.2022                       |           |
|     |                                       | 8-9 Dec. 2022  |           |
|     |                                       | 10.1109/ICPECTS56089.2022.10046                      |           |
|     |                                       | 897  |           |
| 16. | An Investigation Report on Spoting    | IEEE Explore Digital Library                         | 2022      |
|     | and Diagnosing Diseases from the      |  |           |
|     | Images of Brain by Convolutional      |  |           |
|     | Neural Method Using Fusion Support    |  |           |
|     | Vector Machine                        |  |           |
|     |                                       |  |           |
| 17. | An Efficient Detection and            | Publisher: IEEE,16-17 June 2023,                     | June 2023 |
|     | Classification of Acute Lymphoblastic | DOI:   |           |
|     | Leukemia using CNN models             | 10.1109/ICAECA56562.2023.102003                      |           |
|     |                                       | 18, Published in: 2023 2 <sup>nd</sup> International |           |
|     |                                       | Conference on Advancements in                        |           |
|     |                                       | Electrical, Electronics,                             |           |
|     |                                       | Communication, Computing and                         |           |
|     |                                       | Automation (ICAECA)                                  |           |