Sri Sai Ram Engineering College

Department of Electronics and Instrumentation Engineering

Name: Dr.T. Sathies Kumar	
Designation:	Associate Professor
Qualification:	M.E,Ph.D
Area of Specialization:	Biomedical Engineering, Image Processing
Experience:	Teaching- 17 yrs
	Industry/Polytechnic: NA
Number of Workshops/ Conferences/ FDP Attended:	WORSHOPS-7 FDP-10

Publication:	Journal:
	     National: 2
	     International: 3

	Conference:
	     National: 8
	     International: 7

Experience:

S. No	Name of the Institution	Designation	Department	Period of Experience
1.	Sri Sairam Engineering College, West Tambaram, Chennai	Associate Professor	Electronics and Instrumentation Engg	0.8yrs (01.08.2022-till date)
2	Sri Sairam Engineering College, West Tambaram, Chennai	Assistant Professor	Electronics and Instrumentation Engg	11.2yrs(01.06.2011 -31.07.2022)
2.	P.B college of Engineering	Lecturer	Electronics and Communication Engineering	01 yr and 10 Months(July2009-May2011)
3.	P.B College of Engineering	Lecturer	Electronics and Communication Engineering	03 yrs and 8 Months (September 2003-May2007)

Theory Subjects Handled:

- Image Processing
- DigitalSignalProcessing
- VLSIdesign
- Electronic devices and circuits
- Linear Integrated Circuits
- Communication Engineering
- Digital Electronics

- Medical Electronics
- Wireless Networks
- Optical Communication
- Microprocessors and Microcontrollers
- Biomedical Engineering

UG projects Guided:

S. No	Title of the Project work	Period of Guidance
1.	Design and Implementation of modified advanced encryption standard using verilog HDL	January 2012 to April 2012
2.	Automation of cable drum handling using PLC and Scada	January 2013 to April 2013
3.	Weather Yatching Prophecy	January 2014 to April 2014
4.	Design and Implementation of boiler drum level Control using PID and Logic Controller	January 2014 to April 2014
5.	Design of emergency shutdown of steam turbo generator	January2015 to April 2015
6.	A Visible Light Communication Link protection mechanism for Smart Factory	January2016 to April 2016
7.	E-Nose for Lung cancer detection	January 2016 to April 2016
8.	Brain Tumor Detection Using SVM Classifier	January 2017 to April 2017
9.	Video Image Watermarking Using Hybrid Watermarking Technique	January 2018to April 2018
10.	Bone Mineral density using Deep Neural Network With Smart Tracking system	January 2018to April 2018
11.	Video Compression and water mark Synchronisation	January 2019to April 2019
12.	Segmentation and Classification of brain tumor using Convolution neural network	January 2020 to April 2020
13	Feature extraction using earlier detection of lung disease by CT and Mri images	January 2021 to April 2021
14	Design and Fabrication of wind and heat powered vehicle	January 2022 to April 2022
15	Emergency evacuation system for clogging free and shortest safe path navigation with IoT-Enabled WSN'S	January 2023-April 2023
16	Contact-Less hand Disinfection using Arduino and UV lighting	January 2023-April 2023

Workshops Attended:

- Attended one day Workshop on "SYNCOPATED APROACH AND SKILL MATRIX IN EFFECTIVE COMMUNICATION" organized by P.B.College of Engineering during Jan 2010.

- Attended two days Workshop on "EMERGING TRENDS IN WIRELESS TECHNOLOGIES AND ANTENNA DESIGN" organized by P.B.College of Engineering during September 2009.

- Attended two days Workshop on "INDUSRIAL AUTOMATION" organized by The department of EIE at Sri Sairam Engineering College during 6th and 7th September 2011.

- Attended one days Workshop on "MATLAB for Engineering and Research" at Ganamani College of Technology, Nammakal during December2011.

- Attended two days Workshop on "PIC Micro CONTROLLER BASED Embedded System Design" at Sri Sairam Engineering College during 28th and 29th F e b r u a r y 2012.

- Attended twodays Workshop on "Industrial IoT" at Crescent institute of science and technology during 6th and 7^{h} A p r i l 2018.

- Attended twodays Workshop on "PLC,SCADA and DCS " at Sri Sairam Engineering College during 23rd to 25th J u l y 2018.

FDPs/SDPs Attended:

- Attended Faculty Development programme on "Work Life Balance For Engineering and Management Faculty" organisedby MBA Depatment, at Sri Sairam Engineering College during 16th to 22^{nd}Febrauary2012.

- Attended ICMR sponsored National Level seminar on "Medical Imaging Techniques and Telemedicine"organisedby Department of EIE, at Easwari Engineering College during 21st and 22nd March2012.

- Attended five days trainingprogrammeon "DCS AND PLC overview" organisedby Sri Sairam Engineering College during 21st to 25th July2014.
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- Attended Faculty Development programme on "Linear Integrated Circuits" organisedby Texas Instruments in Association with STARCOM, at Easwari Engineering College during June2015.

- Attended Faculty Development programme on "Partial Reconfiguration Flow using Xilinx vivado design suite and zed board" organisedby CoreEL Technologies, at PES Institute of Technology, Bangalore during August2015.

- Attended Faculty Development programmeon "Microcontroller Based System Design" organised at Sri Sairam Institute of Technology, Chennaiduring 20th to 22nd June 2016.

- Attended Faculty Development programme on "Biomedical Nanotechnology" Organised by NPTEL-AICTE Aug-Sep 2018.

- Attended Faculty Development programmeon "Microcontroller Based System Design" organised at Sri Sairam Institute of Technology, Chennaiduring 20th to 22nd June 2016.

- Attended training on "Quality Management System and Audit Training" organised at Sri Sairam Engineering College, Chennai during 8th June 2018.

- Attended Faculty Development programme on "Entrepreneurship Career Development Program" organised at Sri Sairam Institute of Management Studies, Chennai during 8th to 12th April 2019.

- Attended FacultyDevelopment programme on "Neural Network and CNN" organised at NITTR, Chandigarh during 20th to 24th April 2020.
- Attended FacultyDevelopment programme on "Latest wireless and computing Technologies " organised at NITTR, Chandigarh during 14th to 18th April 2020.

Publications: Journals:

S. No	Paper Title	Journal Details	Publication details (Vol/Edition/Year and month of publication)
1.	Design of Emergency shutdown system for steam turbo generator	International Journal of Engineering Research and Technology	vol. 4, No. 4, pp. 35-39, April 2015
2	A Review of Robust Video Watermarking Techniques	Journal of Advanced Research in Dynamical and Control Systems	Special issue-2 pg-420-433,June 2017
3	Detection of Tumor in Ultrasound Images	International Journal of Recent Technology and Engineering	Vol.8.No.2 pg-5288-5290,July 2019
4	Video watermarking using DWT and SPIHT Compression	International journal of research and Analytical Reviews	Vol.6.No.3pg.149-153, july 2019
5	Integration of optimized neural network and convolutional neural network for automated brain tumor detection	Sensor Review	2021,Vol. 41(1), pp. 16–34

6	An approach for brain tumor detection using optimal feature selection and optimized deep belief network	Biomedical Signal Processing and Control	2022, vol.73, 103440

Conference proceedings:

S. No	Title of the paper	Conference Details	Month/Year of publication
1.	Detection of Tumors in Ultrasound Breast Images	National conference in Emerging trends in engineering and Technology at Rajarajeshwari Engineering College, Chennai.	April 2009
2.	Neuro-fuzzy System for Classification of Breast Tumors	National conference in Convergent Communication Technologies at Vinayaka Missions KirupanandaVariyarEngineering College Salem.	April 2009
3.	A Cluster of MultiNode Protocol for Less Energy Consumption in Wireless systems	National Conference on Computer Science and Intelligent System at Annapoorana Engineering College,Salem.	October 2013
4.	A Review of Robust Video Watermarking Techniques	National Conference on Recent Innovation in engineering Technology, Management and Application at Priyadarshini Engineering College,Vaniyambadi.	April 2017
5.	Brain Tumor Detection using SVM Classifier	International Conference on Sensing, Signal Processing and Security at St.Peters college of Engineering and Technology	May 2017
6.	E-Nose Detection of Lung cancer Using principal Component Analysis	International Conference on Informatics and Computing in engineering Systems(ICICES 2018) at S.A Engineering College,Chennai.	March 2018
7.	Bone Mineral Density using Deep Neural Network with Smart Tracking System	International Conference on Photonics and High Speed Optical Networks (ICPHON 2018) at S.A Engineering College,Chennai.	April 2018

8.	Video Image Watermarking Using Hybrid watermarking Techniques	National conference on Convergent Communication Technologies, Telemedicine networking and Renewable Resources at Vinayaka Missions KirupanandaVariyar Engineering College Salem.	April 2018
9.	Smart Detection System for Detection of Various Diseases using AOS System	International Conference on New Trends in engineering and Technology at GRT Institute of Engineering and Technology, Tirutani,Chennai.	September 2018
10.	BMD using DNN with Smart Tracking System	National Conference in Recent Advancements in Signal processing and Communication at R.M.K College of Engineering and Technology,Puduvoyal.	February 2019
11.	Smart Detection of various Diseases using Exhaled Air Analysis	National Conference in Recent Advancements in Signal processing and Communication at R.M.K College of Engineering and Technology,Puduvoyal.	February 2019
12.	Study of Various Machine Learning Algorithms for use with Automatic Speech Recognition	3rd International Conference on Power, Energy, Control and Transmission Systems, ICPECTS 2022	January,2022
13	Design of a Hybrid Model for Controlling Flow Rate Using Venturimeter	International Conference on Power, Energy, Control and Transmission Systems, ICPECTS 2022 - Proceedings, 2022	January,2022
14	Analysis of Mineral Density in Bone Using Deep Learning and Smart Tracking System	International Conference on Communication, Computing and Internet of Things, IC3IoT 2022	January,2022
15	Multi-Way Switching System Using IoT	4th International Conference on Computing and Communications Technologies, ICCCT 2021,	February,2021
16	Deeplearning Based Bird Deterrent System for Agriculture	4th International Conference on Computing and Communications Technologies, ICCCT 2021,	February,2021