



Science and Engineering Research Board (SERB)  
Department of Science and Technology (DST)  
Govt. of India

## DST – SERB Sponsored Five – Day Hands on Workshop on

“Design of Portable IoT Enabled  
Reconfigurable Antennas for Healthcare  
Monitoring – Theory to Practice,  
A Machine Learning Approach”

**August 22<sup>nd</sup> – 26<sup>th</sup>, 2022**

Convenor

**Dr. E. Kusuma Kumari**

Professor & Head  
Department of ECE

Organized by

**Department of ECE**



**Sri Vasavi Engineering College  
(Autonomous)**

Pedatadepalli, Tadepalligudem, West Godavari – 534101, AP.,  
(Approved by AICTE and Affiliated to JNTUK, Kakinada, A.P.)  
(Accredited by NBA-UG in EEE, ECE, CSE & ME and  
NAAC with “A” Grade)

[www.srivasaviengg.ac.in](http://www.srivasaviengg.ac.in)

### About the Organisation

"Sri Vasavi Engineering College", considered one of the best engineering colleges in Andhra Pradesh, started its journey in the year 2001. Since its inception, the college has been striving to provide quality technical education to its students and making them industry ready. Sri Vasavi Engineering College exemplifies quality in various fields ranging from Engineering, Pharmacy to Business Administration courses and is rated as one among the top 10 engineering colleges in Andhra Pradesh. Highly qualified Faculty always contributes to the knowledge levels of students and facilitates their placement in top most MNCs every year. NBA & NAAC accreditations bear testimony to top notch facilities available in the campus. SVEC became an autonomous engineering college in 2018 and is fine tuning its course curricula to suit the ever growing industry needs.

### About the Department

The Department of Electronics and communication Engineering was established in the year of 2001, to offer four year UG programme with an intake of 60. The intake was enhanced to 120 in the year 2005 and subsequently to 180 from 2013. The Department also offer PG programme with Embedded Systems & VLSI (ES & VLSI) specialization having an intake of 18. It is one of the most significant branches of engineering which has always been in demand. The Department was Accredited by NBA and also recognized as Research centre by JNTUK, Kakinada. The department is known for its efficiency and holds a strong reputation. The department aims primarily at excellence not only in theoretical but also in Experimental Research in Microwaves, Antennas, VLSI, Signal Processing, Communications, Embedded Systems etc. This Department has well qualified and proficient faculty members with a wide range of experience in academics and industry as well.

### Objectives of the Workshop

The primary goal of the workshop is to promote research and developmental activities in rapid advancements in reconfigurable antennas for health care monitoring. This workshop congregates the research experts, students, researchers, faculty and industrial persons and provides a common platform for technology transfer in the integration of RF MEMS devices and Antennas for Bio – telemetry applications using ML Approach.

### CHIEF PATRONS

Sri G. Satyanarayana, President  
Sri Ch.V.V. Subba Rao, Secretary & Correspondent

### PATRON

Sri Ch. Apparao – Technical Director

### Chairman

Dr. Guduru VNSR Ratnakara Rao, Principal

### Convenor

Dr. E. Kusuma Kumari, Professor & HoD, ECE

### Co - Convenors

Dr. P. Ashok Kumar, Assistant Professor.  
Dr. S.V.V. Satyanarayana, Assistant Professor

### Organizing Committee

Faculty Members in ECE Department

### How to Apply

Faculty members, Research scholars, UG/PG students and Professionals from R&D Institutions can apply to this program by filling the following Google form link

<https://forms.gle/SctxNP7mXLnz2DpR8>

### Registration Fee Details

UG / PG Students: Rs.300/-

Faculty/Research Scholars: Rs.600/-

R&D/ Industries: Rs.1000/-

### For Registration through Phone Pe/Google Pay/Net Banking:

Name: **Principal, Sri Vasavi Engineering College**

Bank Account Number: **6895897494**

IFSC Code: **IDIB000T001, Indian Bank**

**Note:** Accommodation will be provided through a request in advance and also avail college bus facilities in the available routes.

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**Registration Form**

Name: \_\_\_\_\_

Qualification: \_\_\_\_\_

Designation: \_\_\_\_\_

Name of the College: \_\_\_\_\_

Address: \_\_\_\_\_

Transaction ID: \_\_\_\_\_

Email Id: \_\_\_\_\_

Mobile No: \_\_\_\_\_

Signature of the Participant

Signature of the HoD/Principal

Note: Separate Registration forms must be submitted in case multiple participants from same institute intend to attend the workshop.

## Mode of Workshop: Offline

### Outcomes of Workshop:

- Creates an opportunity to gain knowledge on Antenna Design & Modelling.
- Explore Machine Learning Concepts in Antenna Design.
- Understand the concepts of Reconfigurable Antenna Techniques
- Gain knowledge on various RF-MEMS Devices & Micro-fabrication Technology.
- Hands on training in Antenna Design using HFSS

### Topics to be covered:













- Antennas for on body Applications
- Miniaturized Antennas for Portable Devices
- Reconfigurable Antennas-Switching Techniques
- Reconfigurable Antennas-Medical Applications
- Design of Antennas- Machine Learning Approach
- Machine Learning & Deep Learning for Antenna Design Applications
- RF MEMS Devices
- Surface Micromachining Technology
- Design of Reconfigurable AMC Backed Antennas for WBAN
- Reconfigurable Antennas using MEMS devices

### Hands on Sessions:

- Design of Reconfigurable Antennas using switches
- Design of Wearable Antennas
- Design of Human Phantom models
- Embedding the Designed Antennas on Human Phantom model and Analysis
- Machine Learning based Antenna Selection for Wireless Comm. Applications
- SAR (Specific Absorption Rate) analysis
- Design of Antennas for IOT Applications

Last Date for Registration **10-08-2022**

## Resource Persons:

Dr. NVS Narasimha Sharma, Director, IIIT, Trichy	
	Dr. T. Shanmuganatham, Prof. Pondicherry University
Dr. R. Ramana Reddy Prof. JNTUACE, Ananthapur	
	Dr. Koushik Guha, Prof. NIT Silchar
Dr. Arnab Nandi, Prof. NIT Silchar	
	Dr. K. Srinivasarao, Prof. KL University, Guntur
Dr. K. Girija Sravani, Prof. KL University, Guntur	
	Dr. B.T.P. Madhav, Prof. KL University, Guntur.
Dr. M. Venkateswara Rao, Ph.D., KL University, Guntur	
	Dr. E. Kusuma Kumari, Prof. SVEC, Tadepalligudem
Dr. P. Ashok Kumar, Asst. Prof, SVEC, Tadepalligudem	
	Mr. K. Karthikeyan Trainer from Entuple Tech., Bangalore

## For Further Queries

Dr. P. Ashok Kumar, Co-Convenor  
Contact No: +91 7659857980

Dr. S.V.V. Satyanarayana, Co-Convenor  
Contact No: +91 9502554502

**Please Mail us to:**

[sveworkshop2022@gmail.com](mailto:sveworkshop2022@gmail.com)