



# **SREE VIDYANIKETHAN ENGINEERING COLLEGE**

(Autonomous)

Sree Sainath Nagar, A.Rangampet – 517102

## **Department of Electronics and Instrumentation Engineering**

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### **Newsletter 2019-2020**

#### **VISION**

To become a centre of excellence in creative learning and research in the field of Electronics and Instrumentation.

#### **MISSION**

- Offer comprehensive and rigorous educational program in the domain of Electronics and Instrumentation and to prepare students ready for industry & research.
- Design, develop and disseminate contemporary curriculum with knowledge and skills in the fields of Control and Instrumentation to match the expectations of real time needs.
- Establish an ambient and object oriented development ecosystem for a diversity of faculty and students to foster holistic development.
- Create world class infrastructure for teaching, learning, training and research to achieve highest order of excellence in designing systems and controllers.
- Inculcate zeal for ethics among faculty, staff and students to develop creativity and innovation with value.

#### **PROGRAM EDUCATIONAL OBJECTIVES**

After few years of graduation, the graduates of B.Tech (EIE) Program would have

**PEO1.** Enrolled or completed higher education in the core or allied areas of electronics and instrumentation engineering or management.

**PEO2.** Successful career in electronics and instrumentation enabled industries or software industries or be an entrepreneur in the domain area.

**PEO3.** Constantly enhanced their knowledge on new developments in the core or allied areas of electronics and instrumentation engineering.

#### **PROGRAM SPECIFIC OUTCOMES**

On successful completion of the Program, the graduates of B.Tech (EIE) Program will be able to

**PSO1.** Identify and apply suitable sensors and measuring instruments to acquire process variable to analyze the behavior of the system.

**PSO2.** Analyze, design and implement electronic systems for processing the signals for efficient and smart systems.

**PSO3.** Design controllers with domain specific tools and technologies for customized solutions.

## **ACHIEVEMENTS**

- Dr. Y. Dileep kumar, Associate Professor of EIE filed a patent titled “3D Haptic Gripper using Magneto-Rheological brakes for Telemedicine applications”.
- Ms. N. Harathi, Assistant Professor of EIE appointed as a reviewer of “Advances in Science, Technology and Engineering Systems Journal”, CODE: AJR07356.
- Ms. N. Harathi and Ms. N. P. Dharani, Assistant Professors of EIE secured rank 1 in online examination in the Two day online workshop on Fuzzy logic and Neural network approaches for engineering solutions organized by Journal of Advanced Engineering Research powered by Hexacube India.

## **PUBLISHED IN JOURNALS**

- Dr. Y. Dileep kumar, “A Framework to Detect the Atrial Depolarization Level for the Diagnosis of Atrial Fibrillation”, International Journal of Emerging Technologies in Engineering Research (IJETER), Vol. No.08 issue No. 10 pp. 12–15, 2020.
- Dr. A. Yasmine Begum, “Development of animal collar for state of health determination of livestock”, Journal of Information and Optimization Sciences, Vol. No.4 No: 2, pp. 489–497, 2020.
- Mr. G. Hemanth kumar, “Automation of Aerators Based System on Water Quality Parameters in Aquaculture”, Springer, Singapore-Lecture Notes in Electrical Engineering, Vol. No. 601 pp.1896 -1902, 2020.
- Dr. Y. Dileep Kumar, “Real Time Analysis of ECG Signal using Discrete Wavelet Transform”, International Journal of Advanced Science and Technology, Volume. 29 Issue. 3 ISSN: 2005 - 4238, 2020.
- Ms. N. Harathi, “Design and Optimization of ZnO Nanostructured SAW-Based Ethylene Gas Sensor with Modified Electrode Orientation”, Advances in Science, Technology and Engineering Systems Journal, Volume 5 Issue 1 Page No 263-266 ISSN: 2415-6698, 2020.
- Ms. N. P. Dharani, “Detection of Breast Cancer by Thermal Based Sensors using Multilayered Neural Network Classifier”, International Journal of Engineering and Advanced Technology, Volume-9 Issue-2, ISSN: 2249 – 8958, 2020.
- Mr. G. Hemanth Kumar, “Optimization of Network coverage and life time of the WSN based on pareto optimization using NDSG approach, Elsevier Procedia computer Science, ISSN:1877-0509, 2020.
- Mr. G. Hemanth Kumar, “Automation of aerators based system on water quality parameters in aquaculture”, Computational Intelligence and Complexity, Volume 601 pp. 1896-1902, 2020.

- Mr. K. Ayyappa Swamy, “Dual Threshold Log Spectral Distance Voice Activity Detector based Effective Statistical Speech Enhancement”, International Journal of Advanced Science and Technology, Volume. 29 No. 03, pp. 5640 – 5653, 2020.
- Dr. Y. Dileep Kumar, “Effect of PCA Feature Reduction on Ventricular Ectopic Beat Classification”, International Journal of Engineering and Advanced Technology, Volume.9 Issue.1S5 ISSN: 2249 - 8958, 2019.
- Mr. C. Kala Krishna, “Implementation of BLDC motor with PID, Fuzzy and ANFIS Controllers”, Journal of Advanced Research in Dynamical and Control Systems, Volume.11 Issue.7, ISSN: 1943023X, 2019.
- Mr. G. Hemanth Kumar, Dr. N. Gireesh and Mr. C. Somasundar Reddy, “End-to-end communication between IoT devices to maximize energy efficiency through optimization and localization based on the Bio-inspired algorithms”, International Journal of Advanced Science and Technology, Volume. 28 Issue. 16 ISSN: 20054238, 2019.

## **PRESENTED IN CONFERENCES**

- Ms. N.P. Dharani presented a paper on “Detection of Breast Cancer by thermal based sensors using multilayered neural network classifier”, International Conference on "Green Power Technology in Power Grid: Issues, Challenges & Control (ICGPTPG-2019), 19th to 21st December, 2019.
- Ms. N. Harathi presented a paper on “ZnO Nanostructured 2D Layered SAW based Hydrogen gas sensor with enhanced sensitivity”, International Conference on Nanotechnology: Ideas, Innovations and Initiatives (ICN2K19), 12th to 14th December, 2019.
- Mr. K. Ayyappa Swamy presented a paper on “A Non-Uniform Digital Filter Bank Hearing-Aid for Aged People with Hearing Disability”, International Conference on Communications, Signal Processing and VLSI (IC2SV2019), 23rd to 24th October, 2019.
- Dr. N. Gireesh presented a paper on “MPPT using P & O and IC based PI Controller with charge controller”, International Conference on Smart Computing and Control of Systems (ICSCCC -2019), 17th to 19th October, 2019.
- Dr. N. Gireesh and Mr. G. Hemath Kumar presented a paper on “Analyze of Multivariable Distillation Column by Tuning of Predictive Method”, International Conference on Smart Computing and Control of Systems(ICSCCC -2019), 17th to 19th October, 2019.
- Ms. N. Harathi presented a paper on “Modeling of MEMS based Surface Acoustic Wave-Gas Sensor to Obtain Enhanced Sensitivity”, International conference on Electronics, Material Engineering and Nano-Technology (IEMENTech 2019), 29th to 31st August, 2019.

## WORKSHOPS/FDPs ORGANIZED

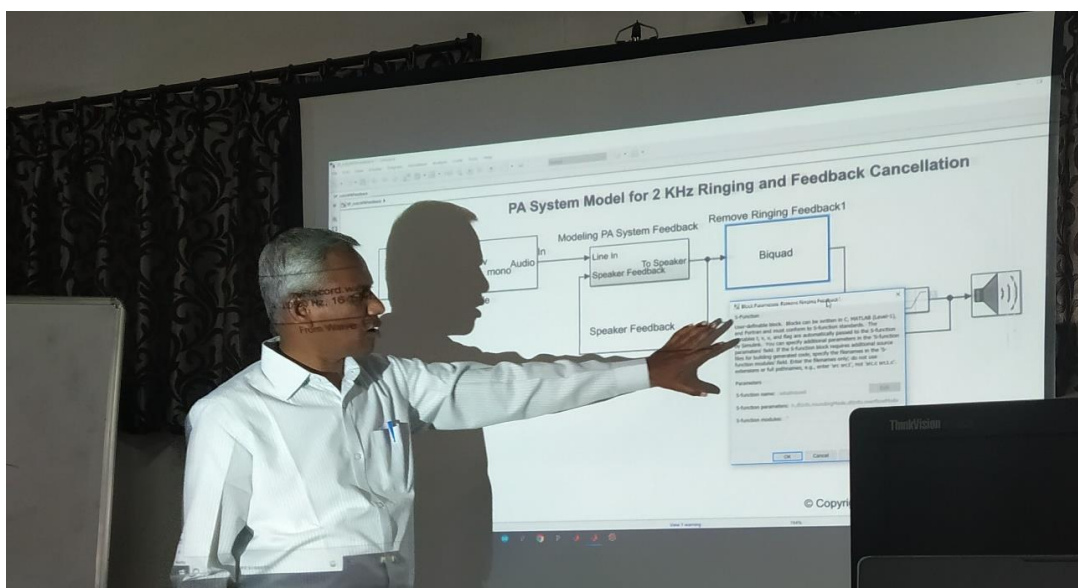
### One day workshop on PYTHON basics



A Group Photo of students attended for this Training Program together with APSSDC Trainers, and Staff

A workshop on “Python basics” was conducted for the students in the department during 01-03 August 2019 with association of APSSDC, Andhra Pradesh. The resource persons from APSSDC were Mr. P. Anil and Mr. M Satyanaryana, briefed and discussed the importance of Python in various domains. They interacted with students during Hands on Training. A Total of 41 students have attended, benefitted from this course and are expected to get a practical exposure and new insights on Python Basics and its significance in different fields

### One week FDP on “Scientific Computing through MATLAB



Mr. Prem Kumar J, Product Manager, Capricot Technologies Pvt. Ltd., Hyderabad demonstrating DSP toolbox

Department of Electrical and Electronics Engineering & Department of Electronics and Instrumentation Engineering organized a One week FDP on “Scientific Computing through MATLAB” from 2nd to 6th December 2019.

The main objective of the workshop is to Introduce Machine Learning, Deep Learning, Computer Vision, Audio Signal Processing toolbox, DSP Toolbox, Live script in MATLAB, Embedded Coder, MATLAB Coder, SIMULINK Coder, and Fixed-Point Designer in MATLAB. Recourse person also explained about audio processing systems and algorithms with real-time applications. A total of 60 faculty members were benefited by attending this workshop.

### **A Staff Development Programme on “PLC & HMI”**



Dr. N. Gireesh, HOD, Department of EIE delivering the Welcoming Address

A Staff Development Programme on “PLC & HMI” is conducted in Department of EIE during 26-27 August 2019. The resource persons are Mr. G. Hemanth Kumar & Mr. C. Somasundar Reddy, Assistant Professor, Dept. of EIE, Sree Vidyanikethan Engineering College.

The topics include Introduction to PLC, Ladder programming using gates, PLC Timers and counters and applications; Hands on Programming; HMI and its applications were covered. A Total of 25 Technicians from various departments have attended, benefitted from the SDP and are expected to perform well in PLC.

### **WORKSHOPS/STTP/FDP ATTENDED**

- Dr. N. Gireesh and Dr. Y. Dileep kumar attended a training program on “Innovation and Entrepreneurship”, by Columbia Business School during 16-17 September 2019.
- Mr. K.M.N.Chaitanya kumar Reddy and Mr. K. Ayyappa Swamy attended a Five Day National workshop on “Artificial Intelligence”, under AICTE Training and Learning Academy program, during 22-26 September 2019 at NIT, Raipur.

- Mr. C. Kalakrishna attended a STTP on “Machine Learning: From Theory to Modeling”, during 23-27 September 2019 at NIT, Raipur.
- Mr. C. Ravindra Murthy attended a STTP on “Medical Signal and Image Processing”, during 14-19 October 2019 at NIT, Raipur.
- Mr. K. Ayyappa Swamy attended Five day FDP on “Machine Learning for Image, Audio, Video, Analysis & IOT”, during 9-14 December 2019 at K.J. Somaiya Institute of Engineering & Information Technology, Mumbai.

## **GUEST/EXPERT LECTURES**

- Organized one day expert lecture for II and III year B.Tech students on “Idea to Prototype on IIoT” by Mr. Jagatheeswaran Senthivelan, Lead-IIoT and Robotics division, Auxo Technology Labs, Chennai.



Mr. Jagatheeswaran Senthivelan delivering his lecture

- Organized a guest Lecture for B.Tech students on “Industrial Drives and Its Applications” by Ms. B. Sudeepthi, Product owner professional, Siemens Technology and Services Pvt. Ltd., Bengaluru.



Ms. B. Sudeepthi delivering her lecture

- Organized a guest lecture through online mode for II and III year B.Tech students on “Overview of Embedded Systems” by Mr. E. Kiran Mahesh, Software engineer, Intel Solutions Pvt. Ltd.

## **INDUSTRIAL VISIT**

An outreach program to the III B.Tech EIE students has been conducted. In this regard they visit nearby FM station. A total of 30 students visited “Red FM 93.5” and got practical exposure about various UHF and VHF equipments, communication process and various principles and techniques involved behind FM transmission.



III B.Tech students visited nearby FM station

## **STUDENTS ACHIEVEMENTS**

- Mr. P. Srinivasa sai secured All India 30th Rank in GATE – 2020 under Instrumentation Engineering.
- Mr. R.V. Jayanth Reddy and Mr. K. Nagendra Akshith presented a paper on “Cardioversion” and bagged II prize in a technical event held at SVEC on 12 October 2019.
- Mr. K. Mahesh and Ms. L. Himabindu participated and bagged I prize in technical quiz competition held at SVEC on 12 October 2019.

## PAPERS PRESENTED BY THE STUDENTS IN CONFERENCES

SI.No	Title of the Paper	Name (s) of Author (s)	Details of Proceedings
1.	Feasibility of wireless pressure sensor for aircraft	Ms. B. Harichandana Ms. S. Kavya	AP State Level ISTE Student Convention on Current and Emerging Technologies, Sree Vidyanikethan Engineering College, A.Rangampet, 12th October, 2019.
2.	Artificial Intelligence and Cyborg Technology	Ms. K. Jahnavi Mr. A. Sai Bhagavan Reddy	
3.	Computer Vision in Manufacturing	Ms. M. Vidhya Ms. D. Madhumitha	
4.	Pacemakers	Ms. C. Dilli Prasanna Mr. J. Urmith Sai Teja	
5.	Electronic Materials	Ms. Mopuru Rikitha Ms. Meduri Thanuja	
6.	Artificial Intelligence	Ms. Kondapalli Sivani Ms. Kannan Vanitha	
7.	Efficient Energy Management Using IoT In Smart Cities	Ms. I. Himaja	
8.	Internet of Vehicles for Traffic Management	Ms. Kadiyala Sai Alekhya	
9.	Touch Screen Technology	Ms. V. Sai Pavani Ms. N.Neelima	
10.	Iris Recognition Technology	Mr. R. Nikhil Sai Reddy	
11.	Using HOG Descriptors and UAV For Crop Pest Monitoring	Ms. Karnam Sangeetha	
12.	Cardioversion	Mr. R.V.Jayanth Reddy Mr.K.Nagendra Akshith	
13.	Abiocar	Mr. G.srikanth Mr. Y. Jyohi krishna	
14.	Bionic Eye	Ms. S.Reema Nawaz	
15.	Automatic Energy Meter reading system using Arduino	Ms. Karanam Thejaswi	International Conference on Applications of MEMS, NANO and Smart Materials (ICMNSM - 2019), 12.12.2019 to 14.12.2019



## **EXTRA AND CO-CURRICULAR ACTIVIES ORGANIZED BY THE DEPARTMENT**

<b>Sl.No.</b>	<b>Name of the program</b>	<b>Dates organized</b>	<b>No. of students participated</b>
1	Chinese whisper	27.07.2019	37
2	Technical C	25.07.2019	77
3	Movie Masti	08.08.2019	65
4	Present your Idea	19.09.2019	23
5	Pictionary	21.09.2019	63
6	Poster presentation on medical Instrumentation	23.10.2019	29
7	"Awareness of Health care Instruments"	19.10.2019	15
8	Debate	26.12.2019	42
9	Crazy concentration	03.01.2020	27
10	Group Discussion	26.02.2020	40
11	DHC-Science Hunt	28.02.2020	38
12	Art Beat	29.02.2020	35
13	Cricket	03.03.2020	28
14	Know Sensors	05.03.2020	45

### **EDITORS**

Dr. Y. Dileep kumar

Mr. K.M.N. Chaitanya kumar Reddy