

Velagapudi Ramakrishna Siddhartha Engineering Department of Electronics & Communication Engineering *News Letter Volume 10 Issue 4 Jan Feb 2023*





Interactive Session on "ACCELERATE GROWTH IN VLSI"

The Department of Electronics and Communication Engineering organized a guest lecture on accelerating growth in the VLSI industry on 11-02-2023. The guest speaker for the event was Sri. M. Sunil Reddy, Senior Principal Application Engineer, Cadence Design Systems, Bengaluru, Karnataka, India. A total of 137 students of III BTech ECE have attended the programme. The lecture focused on various aspects of the VLSI industry, such as the design flow, architecture of ICs, and different roles in the industry. The session commenced with an introduction to VLSI design and its significance in the modern world. Mr. Sunil then highlighted the different roles available in the VLSI industry, such as RTL engineers, verification engineers, circuit designers, physical engineers, and fabrication engineers. Mr. Sunil provided insights into the design flow in the VLSI industry and the importance of each role in the design process. He also shared real-life examples and case studies to help students understand the industry's intricacies better.







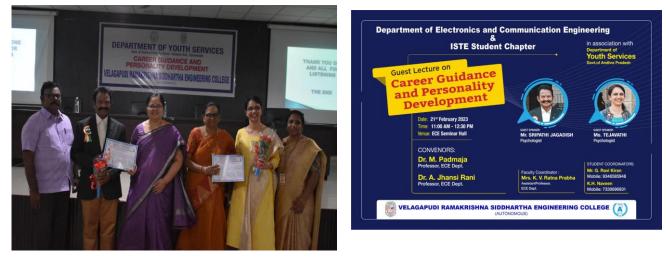
A Guest Lecture on "INNOVATION THROUGH PASSION"

A Guest Lecture on "INNOVATION THROUGH PASSION" was organized by the Indian Society of technical education student chapter student coordinators under the guidance of Dr.A.Jhansi Rani Convenor, Dr.M.Padmaja Convenor, Mr.Ch. Raghavendra Faculty coordinator and invited speaker P.V.Narasaiahnaidu, Executive Engineer/ Construction, Vijayawada South Central Railway on 17th February 2023 at 3:00 P.M IST at Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh, India.



One day Guest Lecture on "CAREER GUIDANCE AND PERSONALITY DEVELOPMENT"

One day Guest Lecture on "Career Guidance and Personality Development" was conducted on 21st February 2023. Mr. Sripathi Jagadish, Psychologist and. Ms. Tejavathi, Psychologist were the speakers. Mr. Sripathi Jagadish delivered an exemplary talk on Personality Development. He interacted with students about their life style, behaviour and character. He advised students to take right decisions about their career. Ms. Tejavathi delivered her lecture on career guidance and she given some examples to mould students character





A Guest Lecture on "Entrepreneurship MILATRONICS-my life as an entrepreneur"

A Guest Lecture on "Entrepreneurship MILATRONICS-my life as an Entrepreneur" was organized by the Indian Society of technical education student chapter student coordinators under the guidance of Dr.A.Jhansi Rani Convenor, Dr.K.Vara Prasad Faculty coordinator, Mrs.K.V.Ratna Prabha, Assistant Professor, ECE Dept. Alumni-Coordinator and invited speaker Mr.Lokesh Vanka on 7th February 2023 at 2:30 P.M IST at Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh, India. Mr. Lokesh Vanka is the CEO, Founder of Milatronics private limited, IIT Hyderabad. He is the alumni of Velagapudi Ramakrishna Siddhartha Engineering College. Mr. Lokesh Vanka delivered an exemplary talk on how he started his career as entrepreneur, the challenges faced by him throughout his career. He interacted with students about patents, paper publications. He advised students to take hardware projects and its usage in real time industry. He raised a flash light to educate the budding engineers in the scope of ECE.











Seminar on

"Internship and Higher Education Opportunities at Old Dominion University"

On 07-Feb-2023, the Department of Electronics and Communication Engineering organized a seminar on "Internship and Higher Education Opportunities at Old Dominion University" for 3rd and 4th year B. Tech students. The resource person for the seminar was Professor Ajay Gupta, Director of Computer Resources and a faculty member in the Department of Computer Science at Old Dominion University, Norfolk, Virginia, United States.



Professor Gupta is an expert in the field of computer science and has extensive knowledge of the academic and research opportunities available at Old Dominion University. Professor Gupta emphasized the importance of internships and their role in preparing students for their future careers. He talked about the various internship opportunities available at Old Dominion University and the benefits that students could gain from these internships. He also highlighted the research projects that students could work on and the benefits of participating in these projects. The seminar provided an excellent opportunity for the students to learn about the internship and higher education opportunities available at Old Dominion University. Professor shared his expertise and experience in the field of computer science were invaluable in providing the students with the necessary information to make informed decisions about their future academic and career paths. The event was a success, and the students expressed their gratitude to the ECE department for organizing the seminar and Professor Gupta for sharing his knowledge and experience.

One Week Skill Development Program on Project Development using Arduino Board"

A week-long Skill Development Program for Lab Technicians on Project Development using Arduino Board was organized by the ECE Department from 27th February to 3rd March 2023. The program aimed to provide lab technicians with an introduction to Arduino, its programming language, and the skills required to develop projects using Arduino. The program was attended by a total of 33 participants, including 21 lab technicians from V R Siddhartha Engineering College and 12 from other institutions in and around Vijayawada. The program was led by Dr. Shaik Fayaz Ahamed, Associate Professor, and Mr. T V Sainath Gupta and Mr. R V H Prasad, Assistant Professors, all from the ECE Department at V R Siddhartha Engineering College. The workshop was organized into five days, covering topics related to Arduino board development, introduced the participants to Arduino, its uses, and the basics of setting up the software and hardware required for the development process, digital and analog inputs and outputs, controlling digital and analog outputs, and working with sensors. Participants also were exposed to serial communication to send and receive data, I2C and SPI communication protocols, storing data on the Arduino using EEPROM, advanced programming techniques, including using functions and libraries, debugging and troubleshooting, and advanced control structures, interfacing with external devices and product development, which included developing and prototyping a project idea



Patents

A patent was accepted and published for the work by Mrs V Sarita titled "A frontline robotic vehicle for COVID patient" with application number: 358157-001 on 24th Feb 2023.

Faculty Publications and Conferences attended

- 1. K.Sneha, V.Kavyasri, S.Sudha Aishwarya, Y.Rami reddy, S.Jyothi priya Design And Analysis Of Fractal Antenna For Wireless Communications 7th International conference on computing methodologies and communication (ICCMC-2023), organized by Surya Engineering College, Erode, India held on February 23-25, 2023
- Naidu, V.P., Sushmachowdary, P., Panda, S.K. High gain circular slot MIMO antenna for Wi-Max and WLAN application with minimum ECC value *Evolving Systems* (2023). SCI IF 2.3 <u>https://doi.org/10.1007/s12530-023-09486-0</u>
- 3. Dr Praveen Naidu Vummadisetty A Compact Tri Band Rocket Shaped MIMO Antenna Using ACS Feeding Technique for WLAN and WiMAX Applications DRDO Conference IEEE International Conference On Range Technology(ICORT 2023), DRDO ,Chandipur
- 4. Dr Praveen Naidu Vummadisetty A Half Pear Shaped ACS Fed MIMO Antenna For Triband Applications DRDO Conference, Ieee International Conference On Range Technology(ICORT 2023), DRDO ,Chandipur
- Dr Praveen Naidu Vummadisetty ACS Fed Low Profile Goose Shaped Antenna for 5G Wireless Applications DRDO Conference, IEEE International Conference On Range Technology(ICORT 2023), DRDO ,Chandipur
- 6. Dr Praveen Naidu Vummadisetty A Paper Clip Shaped MIMO Antenna with 4-Ports for Small Satellite Applications DRDO Conference, IEEE International Conference On Range Technology(ICORT 2023), DRDO ,Chandipur
- Kavya Sri Jogi, R.V.H Prasad "Detecting the Plant Species using Deep-Convolutional Neural Network (D-CNN) with Internet of Things (IoT) 3rd International Conference on Artificial Intelligence and Smart Energy (ICAIS 2023) to be held in JCT College of Engineering and Technology during 2- 4, February 2023
- Dr.G.L.Madhumati A comparative analysis of HDL and HLS for developing CNN accelerators 3rd International Conference on Artificial Intelligence and Smart Energy (ICAIS 2023) held at JCT College of Engineering and Technology, Coimbatore, India during 2- 4, February 2023
- Venkata Sainath Gupta T, Sudhakar Tummala, Seifedine Kadry, Mohamed Sharaf and Hafiz Tayyab Rauf EfficientNetV2 Based Ensemble Model for Quality Estimation of Diabetic Retinopathy Images from DeepDRiD Diagnostics, MDPI Journal, SCIE, IF-3.992. Published on 8th Feb 2023.https://www.mdpi.com/2075-4418/13/4/622

FDP/Seminars/Workshops attended by faculty

- K.Sneha participated in One week Faculty Development Program on "Applications of computer vision using deep learning" organized by Department of ECE, Seshadri Rao Gudlavalleru Engineering College during 20th to 25th February, 2023
- Mr. SK. Khaleel Ahmed participated in One Week FDP on Recent Trends in High Frequency Communications organized by Anant Gyan Knowledge and Skills Private Limited from 20.02.2023 to 24.02.2023
- K. Annapurna participated in One week Faculty Development Program on "Applications of computer vision using deep learning" organized by Department of ECE, Seshadri Rao Gudlavalleru Engineering College during 20th to 25th February, 2023
- K. Annapurna participated in One week Faculty Development Program on "Python for scientific Programming" organized by Department of CSE, Association with CCE, NIT Warangal from 19/09/2022 23/09/2022

- Dr Praveen Naidu Vummadisetty participated in Workshop on Radio Frequency and Microwave Systems Design: Challenges and Solutions for Space Systems IN-SPACE, organized by ISRO HQ Bangalore during Feb 24 & 25, 2023
- Dr. T Venkata Sainath Gupta participated in Web of Science Training & Certification Program 2023 organised by Web of Science from 30.01.2023 to 03.02.2023
- Dr. K.Shri Ramtej participated in Web of Science Training & Certification Program 2023 organised by Web of Science from 30.01.2023 to 03.02.2023
- Dr.G.L.Madhumati participated in the Design Contest category of the 36th International Conference on VLSI Design and 22nd International Conference on Embedded Systems organized by VLSI Society of India from 08th to 12th January 2023
- Dr.G.L.Madhumati participated in One week faculty Development Programme on "Applications of Computer Vision using Deep Learning" organized by Department of Electronics and Communication Engineering, Seshadri Rao Gudlavalleru Engineering College, Gudlavalleru from 20.02.2023 to 25.02.2023

Achievements by faculty of ECE

- Dr Praveen Naidu Vummadisetty attended 5 Weeks IDCSS Indo Dutch Cybersecurity School 2023 organized by HCSS The Hague Centre for Strategic Studies, Netherlands.
- Social Activity was organized on 04th Feb 2023 by Dr Praveen Naidu Vummadisetty and Dr. B. Lakshmi Sireesha Associate professors of ECE on "Awareness Program on IoT" to Tadigadapa ZPH School Students in which around 75 School Students actively participated.





Industrial visit to Efftronics

• Mr. R.V. Hanuman Prasad, Mr. Khaleel Ahmed, Mr V. Siva Reddy and Mrs. Sunitha Assistant professors ECE along with 20 III BTECH students visited EFFTRONICS PVT. LTD at Mangalagiri, Andhra Pradesh, on 27th Jan 2023 from 2.00pm to 5.00pm. Students were exposed to the PCB designing and layout printing. At Research and Development centre, project heads explained the Automated Density Based Traffic Light System, Smart Indoor lightening system and Smart Signalling System for Railways. Students were explained about the contemporary technologies and were motivated to handle projects.





Events by clubs in the department

• Digitek- Competition was organized by Dr. G. L. Madhumati, Dr. K. V. Prasad under IETE To test design skills of students in core domain areas as part of IETE Students Day on 1st Feb 2023 and around 35 students actively participated.



• Athisaya club of ECE dept has organised a cultural event to mark the occasion of Sankranti. The halls of the department are decked with colourful decorations and rangolis which reflected the essence of the festival. The day began with a series of cultural activities like rangoli competition, craft your own kite followed by traditional dances.



• Vignatha Students club of the department organised quiz and open Mic competitions in which students participated actively.





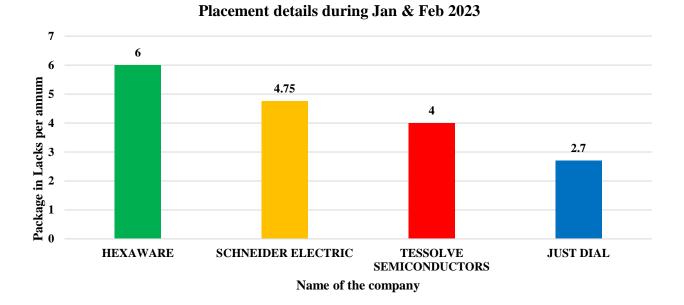
Guest lectures by faculty

- Dr. T Venkata Sainath Gupta delivered a guest lecture on "Creative Thinking" at PVPSIT on 20/02/2023. The main motto of the lecture is to inspire the students to become creative thinkers by presenting real world examples related to ECE. Some of the examples discussed are full duplex communication, compressive sensing, Anti-fall system, Gesture based face mask adjusting system. As concluding remarks, students were given some steps to become creative/out-of-box thinkers.
- Dr. K. Shri Ramtej shared his expertise on "Importance of evaluation metrics in designing a machine learning model" at PVPSIT on 24/02/2023.He discussed how the evaluation metrics will help to quantify, measure the performance of a model, identify areas for improvement and enable comparison of different models. Discussed the evaluation metrics for classification problems like accuracy, precision, recall, F1 Score, and ROC-AUC Score and metrics for regression problems like mean absolute error and mean squared error and how to choose the appropriate evaluation metric based on the problem domain, the type of data, and the business requirements

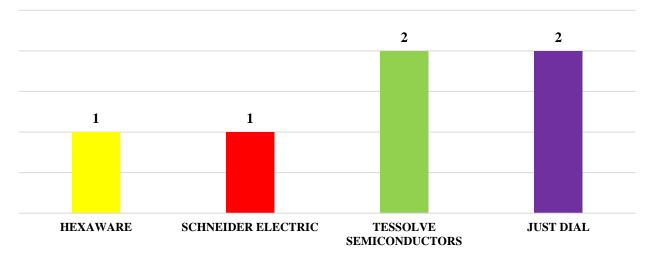
Student Participation in Conference

- V.Kavyasri, S.Sudha Aishwarya, Y.Rami reddy, S.Jyothi priya K.Sneha presented a paper titled "Design And Analysis Of Fractal Antenna For Wireless Communications" in 7th International conference on computing methodologies and communication (ICCMC-2023), organized by Surya Engineering College, Erode, India held during 23rd to 25th February, 2023
- Manasa Lakshmi.G Dr. R. Mariappan, Dr.P.Sarah Suhasini presented a paper titled "Data Visualization for Energy Optimisation in Smart Campus Application Using LoRaWAN Industrial IoT Technology" in First International Interdisciplinary Conference on Energy, Nanotechnology and Internet of things, Organized by NIT Puducherry, Karaikal held from 2nd to 4th February, 2023.
- Somineni Sri Lakshmi(PG) Dr.G.L.Madhumati presented a paper titled "A comparative analysis of HDL and HLS for developing CNN accelerators" in 3rd International Conference on Artificial Intelligence and Smart Energy (ICAIS 2023) held at JCT College of Engineering and Technology, Coimbatore, India during 2nd to 4th, February 2023.
- Pallavi Golla, D.V.S. Akash, S. Pranay Sai, Y Sarada Devi, R Mariappan, presented a paper titled "VANET Routing Protocol using Particle Swarm Optimization" in International conference on Advances in Computational Intelligence and its Applications held at K L University, Hyderabad Campus during 24,25 Feb 2023
- Pasupuleti Chandana, Sanjivini Narina and Parasa Haneela Y Sarada Devi, R Mariappan presented a
 paper titled "Securing Attacks on MANETs using Enhanced Blackhole Resistance Protocol" in 1st
 International Conference on Science, Technology and Engineering (ICSTE-2023) held at NIT
 Manipur, Imphal during 17th & 18th Feb. 2023





Placement Details - No of Students Placed during Jan & Feb 2023



AFOSEC 2023 -- ECE

V R Siddhartha Engineering College organised a two-day national level techno cultural fest AFOSEC 2023 in which 4 national level competitions like Idea Hackathon, Drone Competition, best out of waste and short films reflecting Indian culture were organised. Almost 3000 students from reputed institutes participated in the fest. Electronic debate, Scientific panel game, VLSI stick outs, Signal coding, Bug crash were few of the technical games conducted in department of ECE. Electronic debate was to discuss and debate on the given technical topic. Scientific panel game was to test technical knowledge. VLSI stick outs was to design a VLSI stick layout for the given idea. Students were asked to create a MATLAB code for the given signal in signal coding Bug Crash created interest among the students to identify errors in the codes. Many students actively participated and won exciting prizes.





Department of ECE

Vision

To produce globally competitive and socially sensitized engineering graduates and to bring out quality research in the frontier areas of Electronics & Communication Engineering.

Mission

To provide quality and contemporary education in the domain of Electronics & Communication Engineering through periodically updated curriculum, best of breed laboratory facilities, collaborative ventures with the industries and effective teaching learning process. To pursue research and new technologies in Electronics & Communication Engineering and related disciplines in order to ensure the needs of the period.

related disciplines in order to serve the needs of the society, industry, government and scientific community.

PSOs

PSO1	Demonstrate proficiency in the use of IOT required in real life applications.
PSO2	Implement functional blocks of hardware / software designs for signal processi

and communication applications

POs

- PO1 → Engineering knowledge
- PO2 \rightarrow Problem analysis
- PO3 \rightarrow Design/development of solutions
- PO4 → Conduct investigations of complex problems
- PO5 \rightarrow Modern tool usage
- PO6 \rightarrow The engineer and society
- PO7 \rightarrow Environment and sustainability
- PO8 \rightarrow Ethics
- PO9 \rightarrow Individual and team work
- PO10 \rightarrow Communication
- PO11 \rightarrow Project management and finance
- PO12 \rightarrow Life-long learning

V R Siddhartha engineering College

Department of ECE

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