<u>2022-23</u>

Sr. No.	Event Title & Description	No. of Participants
1.	Robotic Workshop For Class X Student	120
2.	Robotic Workshop For Diploma Student	44
3.	Hands-On Session On MSP430 (NMIMS)	34
4.	Texas Winter Internship on MSP430(SE)	36
5.	Introduction to Microcontroller in Automobiles	90

<u>1. SDP on MSP430 Connecting Students to Microcontroller Excellence</u></u>

Date: July 18th 2022 to July 19th 2022

Total number of Participants: 70

Resource Person: Mrs. Shaista Khanam Mrs. Trupti Shah

The "SDP on MSP430 Connecting Students to Microcontroller Excellence" program in 2023 provided hands-on learning opportunities for students to master the intricacies of the MSP430 microcontroller platform. Through workshops, projects, and mentorship, participants gained practical skills in embedded systems development, fostering innovation and expertise. The program fostered a vibrant community of learners, empowering them to apply their knowledge in real-world scenarios and inspiring the next generation of microcontroller enthusiasts.

Topics Covered

1. Introduction to Embedded Systems and Arduino Basics

2 Analog Readings and Sensor Interfacing

Photos:-







2. Robotics Workshop for Diploma

Date: September 17th 2022

Resource Person: Ms. Ekta Naik

Ms. Kanchan Sarmalkar

Mr. Kamlesh Bachkar

On 17th September 2022, VCET's Electronics and Telecommunication department, alongside the VCET Texas Committee, hosted an informative workshop titled "Robotics Workshop." Participants delved into Arduino basics and explored Texas RSLK Robotic Bots. Ms. Kanchan Sarmalkar introduced Arduino fundamentals to diploma students. Led by Ms. Ekta Naik, attendees learned LED and tri-color LED interfacing with Arduino, while Texas Student Coordinators facilitated hands-on demonstrations. The event concluded with enthusiastic participants eager to apply newfound knowledge.

Topic covered:-

- 1. Introduction to Arduino
- 2. Interfacing LED and Tri-colour LED with Arduino
- 3. Common Mistakes in Circuit Making
- 4. Overview and Working of RSLK Robotic Bots

Photos:-













3. INTRODUCTION TO MICROCONTROLLERS IN AUTOMOBILES

Date: 22nd February, 2023 (4pm)

Total number Participants:

Resource Person: Dr. Amrita Ruperee

Mr. Rajas Patil

Mrs. Shaista Khanam

Mr Rajas Patil started the session by giving an introduction about the microcontroller in automobiles, how it is rapidly increasing and becoming important to the automotive industry. He also explained the main crucial role in controlling various systems, applications and functioning in the vehicle.

Further he explained different types of systems including engine management, transmission control, anti-lock braking systems and gave brief details about all the systems. Also he explained advantages of microcontrollers is their ability to integrate with other systems, actuators and displays.

Topic Covered:-

- 1. Introduction to Microcontrollers in Automobiles
- 2. Importance and Rapid Growth of Microcontrollers in the Automotive Industry
- 3. Crucial Role of Microcontrollers in Controlling Various Systems and Applications in Vehicles
- 4. Different Types of Systems Controlled by Microcontrollers:
 - Engine Management
 - Transmission Control
 - Anti-lock Braking Systems (ABS)
- 5. Advantages of Microcontrollers in Automobiles:
 - Integration with Other Systems
 - Control of Actuators
 - Display Functions
- 6. Q&A Session with Mr. Rajas Patil, addressing students' doubts and queries

7. Vote of Thanks by Navya Nair, concluding the event and expressing gratitude to all participants and organizers.







