2021-22

Sr. No.	Event Title & Description	No. of Participants
1.	Webinar On "Fundamentals in Product Research & Development"	100
2.	Texas instruments Innovation Laboratory Internship "Embedded System and IoT"	26
3.	Texas Summer Internship On MSP430	21

1. Hands on session on MSP430

Date: September 17th 2021 to September 19th 2021

Total number of Participants: 21

Resource Person: Ms Shaista Khanam(Texas Coordinator, EXTC)

The Electronic and Telecommunication department of VCET, in collaboration with Texas Instruments Innovation Lab, hosted a 3-day workshop titled "Hands-on Session on MSP430." Participants delved into MSP430 boards using Energia IDE, led by Ms. Shaista Khanam. Activities ranged from register-level programming to practical exercises like LED blinking and analog reading using POT. On the final day, students were introduced to Tiva C and continued with LED blinking exercises. The workshop, marked by insightful sessions and student engagement, concluded with a heartfelt vote of thanks from the student coordinator.

Topics Covered:-

1. Introduction to MSP430 boards and Energia IDE

2. Register-level programming and LED blinking demonstration

3. Practical exercises on LED blinking with switches

4. Analog reading using POT (Potentiometer)

5. Introduction to Tiva C microcontroller

6. Further LED blinking exercises with Tiva C

7. Consistent scheduling across all three days

8. Concluding remarks and vote of thanks from the student coordinator

PHOTOS:

2. Training on "Embedded Systems & IOT"

Date: December 6th 2021 to December 17th 2021

Total number Participants: 26

Resource Person: Mrs. Shaista Khanam

            Mrs. Trupti Shah

            Ms. Ekta Naik

\\   Dr. Archana Ekbote

            Mrs. Kanchan Sarmalkar

            Mr. Kamlesh Bachkar

Training provides students exposure to real time applications of embedded systems and IOT and to gain knowledge through hands-on experience. Students get acquainted interfaced LEDs, switches, displays, sensors (LDR, ultrasonic, temperature, humidity), Bluetooth, Node MCU, and various microcontrollers, alongside delving into concepts like TCP/IP, BLYNK application, and IFTTT Cloud Lab integration.

Topic cover:-

1. Introduction to Embedded Systems and Arduino fundamentals.

2. Hands-on session on LED interfacing.

3. Hands-on session on Tri-color LED interfacing.

4. Hands-on session on switch interfacing.

5. Hands-on session on 7-segment display interfacing.

6. Overview of Sensors and Actuators.

7. Hands-on session on LDR interfacing.

8. Hands-on session on ultrasonic sensor interfacing.

9. Hands-on session on LCD interfacing.

10. Hands-on session on Temperature and Humidity sensor (DHT-11) interfacing.

11. Introduction to Internet of Things (IoT) and ThingSpeak cloud.

12. Hands-on session on Bluetooth sensor interfacing.

13. Hands-on session on NodeMCU and DHT-11 with ThingSpeak cloud.

14. Introduction to MSP-430 Microcontroller (16-bits) and Energia IDE.

15. Hands-on session on analog read operation with LDR.

16. Hands-on session on analog write (LED fading).

17. Introduction to TIVA-C Microcontroller (32-bits).

18. Hands-on session on white LED interfacing.

19. Internet of Things (IoT) concepts.

20. TCP/IP and internet terminologies.

21. CC3100 Booster-Pack Overview.

22. Introduction to BLYNK Application.

23. Hands-on session on Wi-Fi Connection and acquiring IP.

24. Hands-on session on controlling Launchpad using Wi-Fi via HTTP Web browser.

25. Hands-on session on using BLYNK Application to control Launchpad.

26. Introduction to TI Robotics Systems Learning (RSLK) Kit.

27. Hands-on session on motor interfacing.

28. Hands-on session on controlling robots for different directions.

29. Communication protocol overview.

30. Hands-on session on IFTTT Cloud Lab: Integrating Blynk with IFTTT and controlling Launchpad using voice commands.

31. Hands-on session on OLED interfacing based on Communication protocol (I2C).

32. Hands-on session on voice control using NodeMCU.

Photos:-