Department of Electronics & Communication Engineering

1	Name of the Activity/Event	Value Added Course on **"Embedded Robotics"**
2	Date of Activity/Event	**14/11/2022 To 19/11/2022**
3	Organized by	**Department of Electronics And Communication Engineering**
4	Place of Activity/event	Visweswaraiah Auditorium
5	Resource persons / guest / organization	**Technotran Electronic Solutions, Nellore**
6	Type of activity/Event	**Value Added Course**
7	Activity/Event objectives	• This course aims at providing an opportunity for students to enrich their knowledge and skill in developing various solutions for solving engineering problems in the society. • This program serves as a platform for students to work with the recent trends in .

8	Participation	Students	Faculty	Total Participation
		208	-	208

9	General remarks	1. To Learn the concept of Embedded Systems. 2. To Understand the concept of Robotics. 3. Enable students to explore the creation of robots using Arduino. 4. To Provide thorough working knowledge of the Embedded Robotics.
10	Suggested Improvements	Need Hands-on session and more real time examples.
11	Enclosures	1. Program report with Snapshots 2. List of Students 3. Attendance sheet
12	Signature of In Charge	

The Department of **E**lectronics and **C**ommunication **E**ngineering conducted a **Value Added Course** on Embedded Robotics from **14/11/2022 to 19/11/2022.** The resource Organization was Technotran Electronic Solutions, Nellore. The III B.Tech students from the ECE department have attended this Value Added Course.

Inauguration of the Event

The resource person shared his insights, real life scenarios, practical use cases and their solutions on the Embedded Systems. The course started by providing real Arduino Board experience at the registration desk itself – when students' mobile flashed up with the workshop welcome screen on their arrival at the registration desk.

On the first day the Session started with keynote lecture on Embedded Systems and it connected real world. It also provided the insights of applications of embedded systems include home appliances, office automation, security, telecommunication, instrumentation, entertainment, aerospace, banking and finance, automobiles personal and in different embedded systems projects.

Resource person explaining about Embedded Robotics

The next session began with explanation about Arduino is an open-source electronics prototyping platform (Embedded System) based on flexible, easy-to-use hardware and software. Arduino can sense the environment by receiving input from a variety of sensors and can affect its surroundings by controlling lights, motors, and other actuators. The microcontroller on the board is programmed using the Arduino programming language and the Arduino development environment.

In the later sessions, They discussed about the creation of robots using Arduino: control of motors motion and their behaviors. They have introduced the common motors and how to control them with Arduino. The resource person provided basic knowledge of electronics and Arduino that will allow participants to develop their own robotic and kinetic projects afterwards. The basics of programming for Arduino were introduced as well.

Huge number of Students participating in the program

Later on the course they explained about Actuators and L293D Motor Driving IC. Students practically experienced in writing Arduino code for Moving Robot and Switch Controlled Robot .

Enlightening the Young Minds about the importance of IOT

Later on the course was planned to provide hands on experience with Embedded Robotics.