



## Department of Electrical and Electronics Engineering

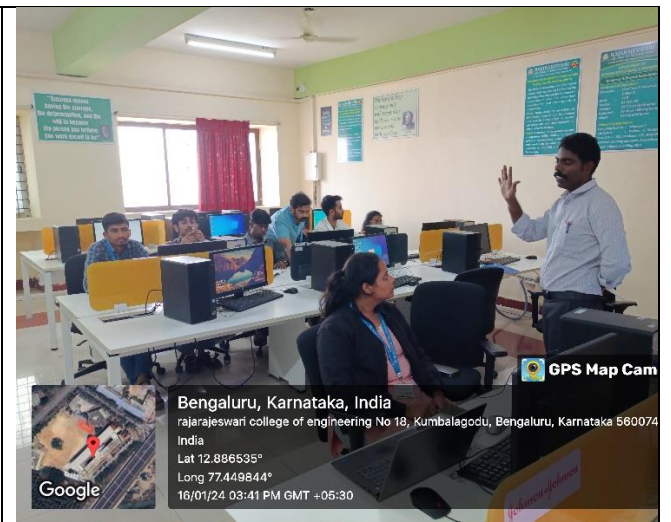
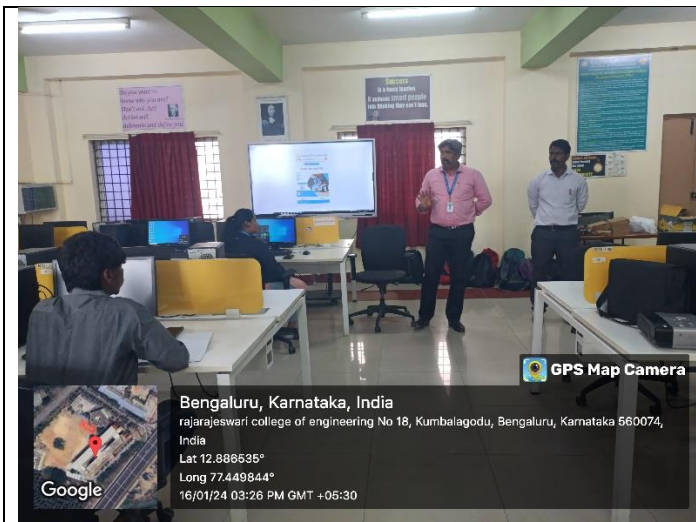
Date:22/01/2024

### Report

**Event Name** : Value added course/Skill training on “Basics of Robotics”  
**Date** : 16<sup>th</sup> to 20<sup>th</sup> January 2024  
**Venue & Time** : EEE Lab 3:00pm to 5:00pm  
**Trainer** : Dr.R.Arul Jose  
Associate Professor  
Department of EEE  
RajaRajeswari College of Engineering.

### Day 1: Introduction to Robotics-Arduino Programming-Simulation using Tinkercad

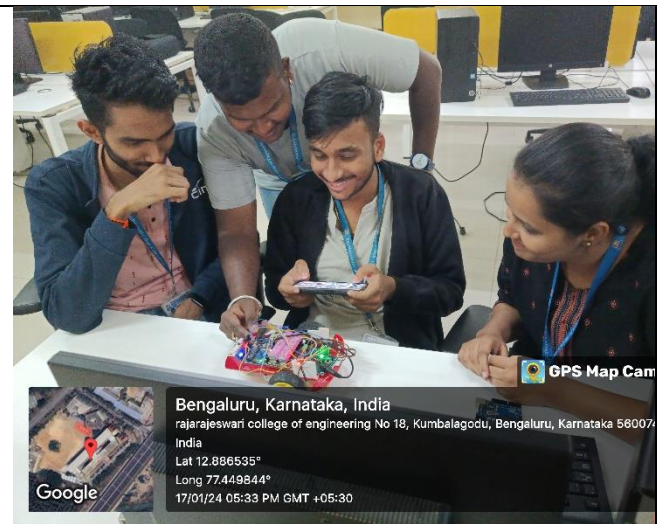
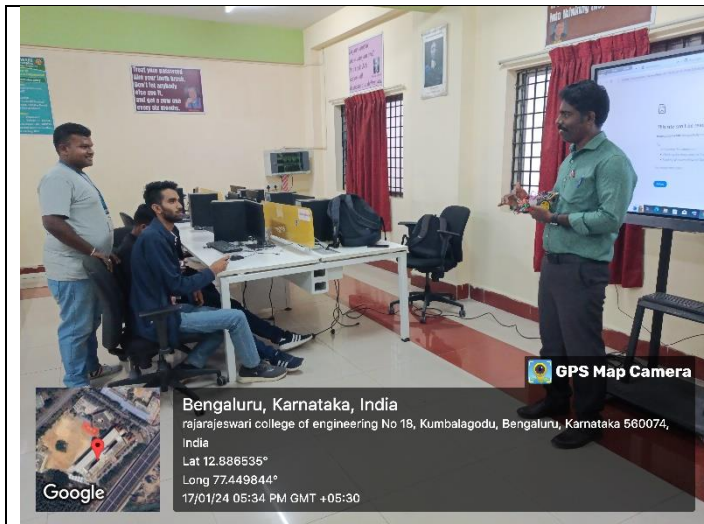
The workshop commenced with encouraging speech by Dr.P.Ebby Darney, HoD of EEE Department. The course started an engaging introduction to the fascinating world of robotics and Arduino programming by the Trainer. Participants gained insights into the principles of robotics and the basics of programming using the versatile Arduino platform. The day concluded with hands-on simulation exercises using Tinkercad, allowing attendees to visualize and experiment with their newly acquired knowledge.



### Day 2: Installation of Arduino Ide-Realtime Implementation of Arduino-Buzzer- Ultrasonic Sensor-IR Sensor-PIR Sensor

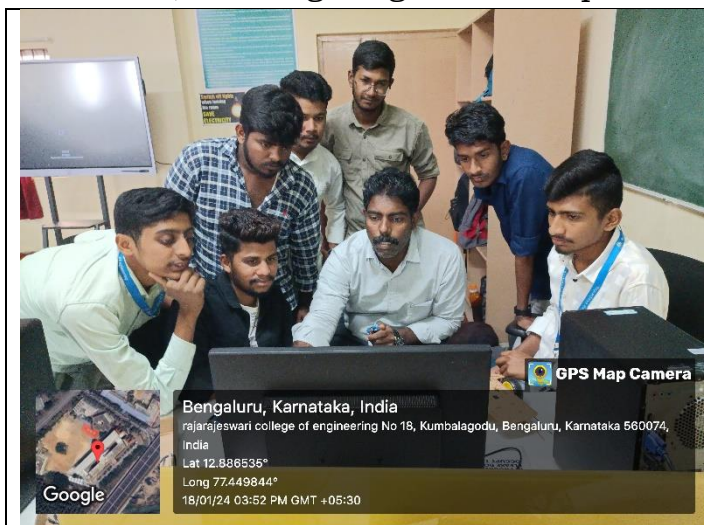
Participants delved into practical aspects on Day 2, starting with the installation of Arduino IDE. Real-time implementation of Arduino involved working with essential components such as buzzers, ultrasonic sensors, IR

sensors, and PIR sensors. This session provided a solid foundation for participants to understand the functioning of these components and their integration with Arduino.



### Day 3: Bluetooth Module HC-05- Motor Driver L298N- Developing Bluetooth Controlled Robot using Arduino UNO

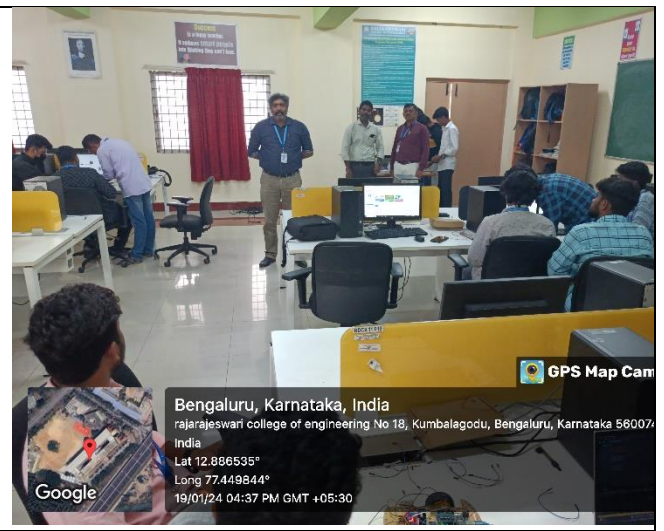
Day 3 focused on advanced topics, introducing Bluetooth technology with the HC-05 module and Motor Driver L298N. Participants actively engaged in developing a Bluetooth-controlled robot using Arduino UNO. This hands-on session enhanced their skills in wireless communication and motor control, marking a significant step towards practical applications in robotics.



### Day 4: Developing Line Follower Robot using Arduino UNO

The fourth day centered around the development of a line follower robot, showcasing the integration of sensors and programming logic. Participants learned how to implement algorithms that enable a robot to follow a predefined path. This session emphasized the importance of precision in programming and sensor calibration for successful robotics projects.



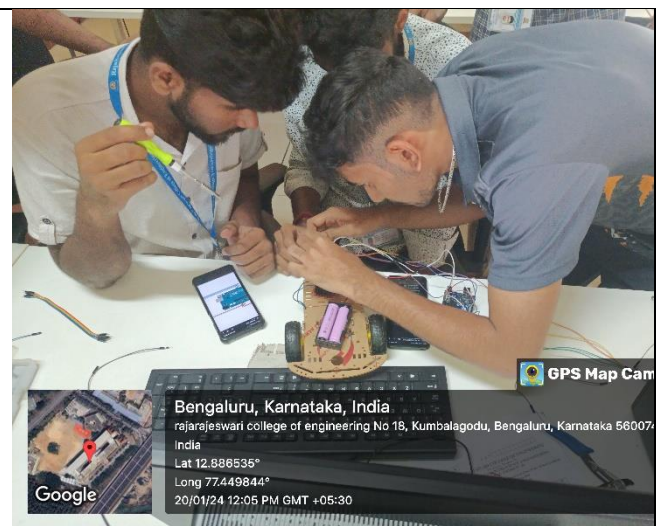


## Day 5: Robo Race-Introduction to Various Robots-Valedictory Function

The concluding day featured a thrilling Robo Race, where participants demonstrated the practical application of their acquired skills in a competitive environment. The workshop concluded with an introduction to various types of robots, providing a comprehensive overview of the diverse applications in the field of robotics. The valedictory function was headed by Dr.J. Amutharaj, Vice Principal and Dr.P.Ebby Darney, HoD-EEE department. The valedictory ceremony celebrated the achievements of the participants and acknowledged their dedication throughout the workshop.







The 5 day workshop on Basics of Robotics at Rajarajeswari College of Engineering provided participants with a holistic understanding of robotics principles and hands-on experience in Arduino programming. The combination of theoretical sessions, practical implementations, and a competitive Robo Race ensured that participants left with a well-rounded skill set. The workshop not only enriched the knowledge of the participants but also fostered a sense of enthusiasm and curiosity for the dynamic field of robotics. The success of this workshop is a testament to the commitment of the EEE department at Rajarajeswari College of Engineering in providing quality hands-on training opportunities to its students.

Event Coordinator  
Dr.R.Arul Jose

HoD