

**DATE: 28 JUNE 2025**

**DAY: MONDAY**

## **DAY 4 – Interfacing Ultrasonic Sensor (HC-SR04)**

### **LEARNING OBJECTIVES:-**

- Learn how ultrasonic sensors measure distance using trigger/echo pulses.
- Understand timing calculations in embedded devices.

### **Overview:-**

Day 4 introduced practical sensor interfacing by connecting the HC-SR04 ultrasonic sensor to Arduino UNO. The session focused on measuring distance by calculating sound wave travel time and printing results using serial monitoring.

### **Activites:-**

- Connected HC-SR04 to Arduino and tested wiring.
- Wrote distance measurement code using pulseIn().

### **Insights:-**

- Understood influence of timing accuracy in sensors.
- Learned how noise affects ultrasonic readings.