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20CC5L02 : INTERNET OF THINGS LAB

COURSE OUTCOMES: Students will be able to

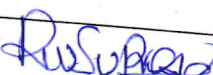
1. Analyze temperature and humidity using various sensors (K4)
2. Apply IR sensor/push button to on/off LED (K3)
3. Build a Bluetooth module with Arduino and Use the same (K3)
4. Construct Actuating elements with Arduino and control the same (K3)

List of Experiments

1. Familiarization with Arduino and perform necessary software installation.
2. To interface LED/Buzzer with Arduino and write a program to turn ON LED for 1 sec after every 2 seconds.
3. To interface Push button/Digital sensor (IR/LDR) with Arduino and write a program to turn ON LED when push button is pressed or at sensor detection.
4. To interface DHT11 sensor with Arduino and write a program to print temperature and humidity readings.
5. To interface motor using relay with Arduino and write a program to turn ON motor when push button is pressed.
6. To interface OLED with Arduino and write a program to print temperature and humidity readings on it.
7. To interface Bluetooth with Arduino and write a program to send sensor data to smart phone using Bluetooth.
8. To interface Bluetooth with Arduino/Raspberry Pi and write a program to turn LED ON/OFF when '1'/'0' is received from smart phone using Bluetooth.
9. To interface Servo motor with Arduino and write a program to control the same using potentiometer
10. To interface Stepper motor with Arduino and write a program to control the same using potentiometer
11. To interface thermistor with Arduino for temperature measurement
12. To measure temperature using thermocouple by interfacing it with Arduino
13. Write a program to create TCP server on Arduino/Raspberry Pi and respond with humidity data to TCP client when requested.
14. Write a program to create UDP server on Arduino/Raspberry Pi and respond with humidity data to UDP client when requested.

Signature
with Date :


Faculty Member


HOD


Principal