

Title- Embedded Systems (ARDUINO)

Course Coordinator- Mr. Manohar Singh

No. of students- 28

Syllabus

Unit 1:

5 hours

Electrical Circuit: Basics, Current, Voltage, Power, Circuit Elements and Applications

Ohm's Law, Kirchhoff's Current Law Kirchhoff's Voltage Law

Electrical Components: Resistors, Capacitor, Inductor, Diode, Switches, Potentiometer, Wiring.

Introduction to Embedded C: Features, Versatility, Compatibility and Applications

Unit 2:

5 hours

Introduction to Microprocessor: 8085, Intel, Bit/Byte, Memory, Number Systems Introduction

to Microcontroller: Arduino, IDE, Software (Atmel studio), libraries, UNO, MEGA, Shield,

motors, LCD, touch pad

Unit 3:

5 hours

Introduction to Sensors, Actuators: Infrared, Ultrasonic, Proximity, Sharp, Accelerometers and

Gyroscope

Unit 4:

5 hours

Programming with Arduino using basic components LED blink, Buzzer, DC motor, LCD display

Unit 5:

5 hours

Small Project:

Arduino (Microcontroller) + Embedded C (Coding Language) + Sensors and Actuators (Peripherals)

Unit 6:

5 hours

Quiz Multiple Choice Questions Based On Embedded Systems

Certificate Distribution.