

MICROPROCESSOR ,MICROCONTROLLER and IoT LAB

The use of Microprocessor and Microcontroller in the field of Engineering is substantial .This lab has various types of microprocessor, micro controller trainer kits along with interfacing modules to demonstrate the meticulous applications of microprocessors. The facilities in the laboratory facilitate students to build a firm background in microprocessor. Students learn about assembly language programming, interfacing of programmable chips and peripherals such as stepper motors, analog-to-digital and digital-to-analog converters etc. They acquire the practical skills sufficient to design and realize basic microprocessor based systems. The purpose of this laboratory is to train the students to be accustomed with microprocessors so that they can gain adequate skills to meet the demand of the microprocessor era. This laboratory is used to afford intensive practical exposure to the students in the field of microprocessor architecture and industrial control through them.

An IoT lab provides to a physical or virtual space equipped with resources and tools for experimenting, prototyping, and testing Internet of Things (IoT) solutions. In IoT lab, various hardware components such as sensors, actuators, microcontrollers, and development boards like Arduino, Raspberry Pi, or ESP32 are available. Additionally, there are networking equipment such as routers, switches, and access points to simulate real-world IoT environments. IoT lab serve as valuable environments for students to gain hands-on experience in building and deploying IoT solutions, experimenting with different technologies, and understanding the challenges and opportunities in the field of IoT.

S.N O	Name of the Equipment	Available Number
1.	8086 Microprocessor Kit	15
2.	8279 Interface card	3
3.	ADC and DAC Interface card	3
4.	Traffic Light Interface card	3
5.	Stepper Motor Interface card With Stepper Motor	3
6.	8251 Interface card	3
7.	8253 Interface card	3
8.	LCD Interface card	3
9.	Keyboard Interface card	3
10.	8051 Micro controller Development Board Detailed Specification	10
11.	IOT Computing Card	1
12.	Sensor Module (Rugged, Range of Sensors)	1 Box

	8051 Microcontroller Development Board Detailed Specification	10
14.	Traffic Light Interface Card	2
15.	Stepper Motor	2
16.	Digital Clock Interface Card	5
17.	Keyboard and Display	2
18.	Printer Interface Card	5
19.	ADC and DAC Interface card	2
20.	Series and Parallel Interface Card	2
21.	70MHz DSO	2
22.	Digital Multimeter	3
23.	8051 USB Programmer	20
24.	IOT Lab Setup (10 Nos)	1 Set
	Microprocessors&Micro controller Kit	2