

MICROPROCESSOR & MICROCONTROLLER LAB

The microprocessor is a multipurpose, programmable device that accepts digital data as input, processes it according to instructions stored in its memory, and provides results as output. The objective of the Microprocessor and Microcontroller Laboratory is to familiarize with the 8086 Microprocessor & 8051 Microcontroller Assembling language programming and interfacing with various modules. It helps the student to do any type of industrial and real time applications by understanding the concepts of Microprocessor and Microcontrollers.



Area in sq.m : 100
Established in the year : 2012
Total investment made(Rs) : 2,22,738/-

Major Equipment :

S.No	Name of the Equipment	Qty
1.	8086 Micro processor Trainer Kit Traffic Light Interface Speed Motor Interface With Moor	06
2.	Traffic Light Interface	01
3.	Stepper Motor Interface	01
4.	8279 Interface	01
5.	8255 Interface	01
6.	8251/53 Interface	01
7.	8259 Interface	01
8.	Multi Output Supplying	05
9.	Pic Micro Controller	01
10.	Writing Data To Parallel Port By Using 8051 Microcontroller Kit	01
11.	To Perform Arthematic Op[eration By Using 8051	02
12.	Dual Dac Interface For 8086microprocessor Kit Including Power Supply	01
13.	8086/8088 Based ,Low Cost Microprocessors Trainer With On Board Usb Port And Provision For Optical Pc Keyboard	03
14.	8051 Based ,Low Cost Microprocessors Trainer With On Board Usb Port And Provision For Optical Pc Keyboard	03
15.	Pic Development Board With On- Board Application	02

LIST OF EXPERIMENTS

Part I: 8086 Programs

1. Data Transfer Operations (MOV& XCHG)
2. Arithmetical Operations (ADD,ADC,SUB,SBB,DAA,AAA)
3. Logical Operations (AND,OR,XOR,Shift, Rotate)
4. String Operations
5. Sorting (Ascending & Descending Order)
6. Code Conversion Programs
7. String Comparison (PASSWORD CHECKING)
8. Read a Character and Display using MASM
9. Reverse the String using MASM

Part II: 8086 Interfacing

10. Key board Interfacing
11. Display Interfacing
12. Stepper motor Interfacing
13. DAC Interfacing (Sine, Square, Saw tooth, Triangular)
14. ADC Interfacing
15. 8259 Interrupt Controller

Part III: 8051 Programs

16. Arithmetical Operations
17. Logical Operations
18. Bit manipulation Operations
19. Parallel Port
20. Timers and Interrupts

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