

MICROPROCESSOR AND MICROCONTROLLER LAB

Course Code: 13EC1127

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Pre requisites: Microprocessors and microcontrollers

Course Educational Objectives:

- ❖ To make the students understand the basic programming of Microprocessor and microcontroller.
- ❖ To interface the microprocessor / microcontroller with various peripherals for various applications

Course Outcomes:

At the end of the course the student will gain the logical development of programs on the 8086 and 8051 processors and understand how to interface 8086/8051 processor for various simple applications.

I EXPERIMENTS BASED ON 8086 ALP:

1. Programs on Data Transfer Instructions of 8086
2. Programs on Arithmetic and Logical Instructions of 8086
3. Programs on String instructions of 8086
4. Programs on Subroutines of 8086
5. Sorting of an Array
6. DOS/BIOS Programming, reading keyboard (buffered with and without echo) -Display characters

II MICROCONTROLLER 8051:

7. Reading and Writing data on a parallel port.
8. Timer in different modes.
9. Serial communication implementation.

III. EXPERIMENTS BASED ON INTERFACING

10. DAC Interface-Waveform generation
11. Stepper Motor Control
12. Keyboard Interface
13. ADC Interface
14. LCD Interface

