

**EC-351****MICROPROCESSORS & MICROCONTROLLERS LAB****L T P C****- - 3 2****COURSE OBJECTIVES:**

1. To develop the microprocessor based programs for various problems.
2. To understand interfacing the microprocessor with external world.
3. To develop the microcontroller based programs for various applications.

**COURSE OUTCOMES:****After successful completion of the course, the students are able to**

1. implement 8086 Microprocessor & 8051 Micro controller based programs.
2. develop Assembly Language Programming with an Assembler.
3. demonstrate the interfacing of Programmable peripheral devices with 8086 Microprocessor and 8051 Micro controller.
4. Understand communication standards in 8086 Microprocessor & 8051 Micro controller.

**List of Experiments:****Experiments Based on ALP (8086):**

1. Programs on Arithmetic and Logical Instructions.
2. Programs on Data Transfer Instructions.
3. Programs on Branch Instructions.
4. Programs on Subroutines.
5. Sorting of an Array.
6. Programs on string instructions.
7. Programs on Interrupts.

**Experiments Based on Interfacing with 8086 and Experiments Based on Microcontroller (8051):**

8. DAC Interface-Waveform generations.
9. Stepper Motor Control.
10. Keyboard Interface / LCD Interface.
11. Programs on Data Transfer Instructions using 8051 Microcontroller.
12. Programs on Arithmetic using 8051 Microcontroller.
13. Programs on Logical and bitmanipulation Instructions using 8051 Microcontroller.
14. Applications with Microcontroller 8051.

**Note:** A minimum of 10(Ten) experiments, choosing 5 (Five) from each part, have to be Performed and recorded by the candidate to attain eligibility for Semester End Practical Examination.