## EI507PC: MICROPROCESSORS AND MICROCONTROLLERS LAB

## B.Tech. III Year I Sem.

L T P C 0 0 3 2

**Note:** - Minimum of 12 experiments to be conducted.

The following programs/experiments are to be written for assembler and to be executed the same with 8086 and 8051 kits.

## **List of Experiments:**

- 1. Programs for 16 bit arithmetic operations 8086(using various addressing modes)
- 2. Programs for sorting an array for 8086.
- 3. Programs for searching for a number of characters in a string for 8086.
- 4. Programs for string manipulation for 8086.
- 5. Programs for digital clock design using 8086.
- 6. Interfacing ADC and DAC to 8086.
- 7. Parallel communication between two microprocessor kits using 8255.
- 8. Serial communication between two microprocessor kits using 8251.
- 9. Interfacing to 8086 and programming to control stepper motor.
- 10. Programming using arithmetic, logical and bit manipulation instructions of 8051.
- 11. Program and verify Timer/Counter in 8051.
- 12. Program and verify interrupt handling in 8051.
- 13. UART operation in 8051.
- 14. Communication between 8051 kit and PC
- 15. Interfacing LCD to 8051
- 16. Interfacing Matrix/Keyboard to 8051
- 17. Data transfer from peripheral to memory through DMA controller 8237/8257