Course code	Course name	L-T-P-Credits	Year of Introduction
AE331	MICROPROCESSORS & MICROCONTROLLERS LAB	0-0-3-1	2016

Prerequisite : AE305 Microprocessors & Microcontrollers

Course objectives

- To write ALP for arithmetic and logical operations in 8086 and 8051
- To differentiate Serial and Parallel Interface
- To interface different I/Os with Microprocessors

List of Experiments (Out of 18 experiments minimum 12 experiments are compulsory)

8086 Programs using kits :

1.Basic arithmetic and Logical operations
2. Move a data block without overlap
3. Separating Odd and Even numbers
4. Code conversion, decimal arithmetic and Matrix operations.
5. Program for sorting an array
6. Program for string manipulation
7. Floating point operations and searching.

Peripherals and Interfacing Experiments

8. Stepper motor control.
9. Serial interface and Parallel interface
10. A/D and D/A interface and Waveform Generation

8051 Experiments using kits :

11. Basic arithmetic and Logical operations
12. Square and Cube program, Find 2's complement of a number
13. Unpacked BCD to ASCII
14. Program to verify Timer/Counter in 8051
15. Program and verify interrupt handling in 8051
16. UART operation in 8051
17.Communication between 8051 kit and PC
18. Interfacing LCD to 8051.

Expected outcomes

- At the end of the semester students are expected to be familiar with the operations in 8086 and 8051.