

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 <ul style="list-style-type: none">• 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 : <ol style="list-style-type: none">1. Basic arithmetic and Logical operations2. Move a data block without overlap3. Separating Odd and Even numbers4. Code conversion, decimal arithmetic and Matrix operations.5. Program for sorting an array6. Program for string manipulation7. Floating point operations and searching. Peripherals and Interfacing Experiments <ol style="list-style-type: none">8. Stepper motor control.9. Serial interface and Parallel interface10. A/D and D/A interface and Waveform Generation 8051 Experiments using kits : <ol style="list-style-type: none">11. Basic arithmetic and Logical operations12. Square and Cube program, Find 2's complement of a number13. Unpacked BCD to ASCII14. Program to verify Timer/Counter in 805115. Program and verify interrupt handling in 805116. UART operation in 805117. Communication between 8051 kit and PC18. Interfacing LCD to 8051.			
Expected outcomes <ul style="list-style-type: none">• At the end of the semester students are expected to be familiar with the operations in 8086 and 8051.			