

COURSE TITLE	: MICROCONTROLLER AND INTERFACING LAB
COURSE CODE	: 4048
COURSE CATEGORY	: A
PERIODS/WEEK	: 6
PERIODS/SEMESTER	: 84
CREDITS	: 3

LIST OF EXPERIMENTS

On completion of the course, the student will be able:

1. To understand microcontroller programming

- 1.1 To familiarize with microcontroller kit
- 1.2 To write an ALP to multiply two 8 bit numbers
- 1.3 To write an ALP to divide two numbers
- 1.4 To write an ALP to find sum of a block of N numbers
- 1.5 To write an ALP to transfer a block of N data
- 1.6 To write an ALP to find number of occurrence of a data in an array
- 1.7 To write an ALP to find the largest / smallest data in an array
- 1.8 To write an ALP to sort an array in ascending / descending order
- 1.9 To write an ALP to convert BCD to Hex / Hex to BCD
- 1.10 To write an ALP to convert Binary to ASCII / ASCII to Binary
- 1.11 To write an ALP to generate a square wave
- 1.12 To write an ALP to implement counter using timer
- 1.13 To write an ALP to program using interrupt

2. To understand interfacing of microcontroller

- 2.1 To write an ALP to interface digital I/O
- 2.2 To write an ALP to interface matrix keyboard
- 2.3 To write an ALP to interface seven segment displays
- 2.4 To write an ALP to interface LCD Displays
- 2.5 To write an ALP to interface traffic light
- 2.6 To write an ALP to interface 8 bit ADC
- 2.7 To write an ALP to interface 8 bit DAC
- 2.8 To write an ALP to interface stepper motor control
- 2.9 To write an ALP to interface DC motor control
- 2.10 To write an ALP to interface sending data through serial port of controller