CS6412 MICROPROCESSOR AND MICROCONTROLLER LABORATORY L T P C
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OBJECTIVES:

- The student should be made to:
- Introduce ALP concepts and features
- Write ALP for arithmetic and logical operations in 8086 and 8051
- Differentiate Serial and Parallel Interface
- Interface different I/Os with Microprocessors
- Be familiar with MASM

LIST OF EXPERIMENTS:

8086 Programs using kits and MASM

1. Basic arithmetic and Logical operations
2.Move a data block without overlap
3.Code conversion, decimal arithmetic and Matrix operations.
4.Floating point operations, string manipulations,sorting and searching
5.Password checking, Print RAM size and system date
6.Counters and Time Delay

Peripherals and Interfacing Experiments

7. Traffic light control
8. Stepper motor control
9. Digital clock
10.Key board and Display
11.Printer status
12.Serial interface and Parallel interface
13.A/D and D/A interface and Waveform Generation

8051 Experiments using kits and MASM

14. Basic arithmetic and Logical operations
15. Square and Cube program, Find 2's complement of a number
16.Unpacked BCD to ASCII

TOTAL: 45 PERIODS

OUTCOMES:

At the end of the course, the student should be able to:

- Write ALP Programmes for fixed and Floating Point and Arithmetic
- Interface different I/Os with processor
- Generate waveforms using Microprocessors
- Execute Programs in 8051
- Explain the difference between simulator and Emulator

LAB EQUIPMENT FOR A BATCH OF 30 STUDENTS:

HARDWARE:

8086 development kits-30 nos
Interfacing Units-Each 10 nos
Microcontroller-30 nos

SOFTWARE:

Intel Desktop Systems with MASM-30 nos
8086 Assembler
8051 Cross Assembler