
MICROPROCESSOR

Paper Code **CEN-505**

Course Credits **4**

Lectures / week **3**

Tutorial / week **1**

Course Description **UNIT – I**

Review, Organization and architecture of 8085 Microprocessor, Instructions of 8085 & Programming techniques, Machine Language Vs Assembly Language, Basic concepts of timing & control unit, Timing Diagrams for 8085.

UNIT- II

Minimal System, Necessity for interfacing, Address space partitioning – Memory mapped I / O & I / O Mapped I / O, Advantages and Disadvantages, Types of Interfacing devices – I / O ports, Programmable peripheral interfaces 8255, 8259 (PIC), 8251 (USART), 8253 (Timer), 8279 (Keyboard Controller), Coprocessors.

UNIT- III

Hardware scheme for data transfer – Programmed Data transfer, Interrupt Data Transfer, Various interrupt Schemes, Multiple Interrupt, Enabling, Disabling and Masking of Interrupts Particularly in 8085, DMA & DMA Controller.

UNIT- IV

Study of important 8 – bit Microprocessors & their Comparison, Introduction to 16 – bit processors – 8086, 8088 and 68000 Coprocessor & comparison. Introduction to 32 – bit Microprocessors.

UNIT – V

Microprocessors based system design, Introduction and Basic concept, Introduction to MDS, system Design Kits, Introduction to Microcontroller, Some Practical applications.

**References / Text
Books:**

- A.P. Mathur, "An Introduction to Microprocessors" Tata McGraw Hill, 1995.
- K.L. Short, "Microprocessor & Programmed Logic", 2nd Ed., PHI, 1994
- R.G. Gaonkar, "Microprocessor Architecture programming and application", Wiley Eastern Ltd., 1994.
- Bhurchandi, "Advanced microprocessor", TMH 2007

**Computer Usage /
Software Requires:**
