Course Code	Course Title	C	H	I	E	T
17U2DAC2	**MICROPROCESSORS 8086 / 8088 AND ITS APPLICATIONS**	4	5	25	75	100

UNIT I: Software Architecture (15 hours)

Internal architecture – Software model- data types – segment registers- data registers- pointers and index Registers- status registers – generating a memory address – addressing mode.

UNIT II: 8086/8088-Microprocessor Programming (15 hours)

The instruction set – data transfer instructions- arithmetic instructions – logic Instructions- shift instructions- rotate instructions- compare instructions- jump Instructions – the loop and loop handling instructions – string and string handling Instructions.

UNIT III: Memory Interfaces (15 hours)

Minimum –mode and maximum-mode systems minimum system mode interface- system Clock – bus cycle – control signals – read and write bus cycles – memory interface Circuits.

UNIT IV: I/o Interface of the 8088/8086 Microprocessors (15 hours)

Minimum-mode interface- maximum-mode interface- I/O data transfers- I/O instructions- Eight byte wide output ports with isolated I/O – eight byte wide input port using isolated I/O.

UNIT V: Interrupt Interface of the 8088/8086 (15 hours)

Types of interrupts – interrupt instructions- enabling/disabling of interrupt – external Hardware interrupt interface – block diagram of the 8249a (interrupt controller) – Software interrupts.

Text Book:

1. Walter A.Triebel, Avtar Sing - The 8088 and 8086 microprocessors (programming, interfacing, software, hardware and Applications) – Edition – 1995- Prentice Hall Of India.

Reference Books:

1. Douglas v.hall – Microprocessor and interfacing– McGraw-Hill.
2. Bary Brey – Introduction to Microprocessor and Microcomputer- PHI.