Prof TG Venkatesh, IIT-M, Electrical Dept

Course – Microprocessor and Microcontrollers

Topic: - 8085 and 8086 Microprocessor: architecture, assembly language programming and system design

Relevant Semester – 5

Lecture 1: Architecture of a Generic Processor: RISC, CISC, DSP architectures with examples: ARM, IA-32, Blackfin. The 8085 microprocessor architecture, Programmer's model, Instruction set, instruction Format, Addressing modes, Machine cycle, Timing diagrams, memory map.

Lecture 2: Assembly language programming of 8085 and ARM, Looping, block transfer, bit manipulation, time delay routines, stack and subroutine,Interfacing memory and I/O devices. I /O programming,interrupthandling

Lecture 3: The 8086 microprocessor architecture, EU and BIU, Segmentation, DMA, multiprocessor configuration.Advanced Concepts: Cache and virtual memory. Pipelining, superscalar processor, multicore Processors.