Code	Subject Title	Cr. Hrs	Semester
IT-204	Computer Organization and Assembly Language Lab	1	III
Year	Discipline		
2	Information Technology		

Objectives

Instruction set architecture. Accumulator based, Stack Based and General Purpose Register Organization. Processor's Data Path. Design of a basic computer highlighting the timing and control system in instruction execution cycle. Interrupts, traps and signals. Comparison of Intel 80x86 and MIPS architectures. Addressing Modes. Mapping of High level language to corresponding assembly and machine language. Memory and Cache organization techniques. I/O techniques (Memory mapped and isolated I/O). Latest trends in Architectures.

Prerequisites

Digital Logic Design

Text Book

Kip R. Irvine, *Assembly Language for Intel Based Computers,* Third Edition, 1999, Prentice-Hall Publishing, 1999, ISBN-10: 0132383101

Reference Material

- Assembly Language Reference by Que. Corporation.