INTRODUCTION TO COMPUTERS(Required)
(Only for CSE during I B.Tech., I Semester)

Course Code: CS1T6 **Credits: 3**
Lecture: 3 periods/week **Internal assessment: 30 marks**
Tutorial: 1 period /week **Semester end examination: 70 marks**

Prerequisite: Nil

Course Objectives:

This course intends to cover the basic concepts of computers such as organization, architecture, input and output devices, memory as well as operating systems, computer networks. Demonstrate knowledge of the main computer applications used in business and be able to choose the appropriate application for a given task.

Course Outcomes
After completion of this course, students will be able to:

CO1) Understand the computer system, software and hardware
CO2) Know the importance of different types of software
CO3) Understand how to draw flow charts and write algorithms for simple problems
CO4) Study basic concepts of computer networks and Internet
CO5) Learn fundamental concepts of Emerging Technologies

Course Contents / Syllabus:

Unit – I
Introduction to computers : what is a computer, characteristics of computers, Generation of computers, Classification of computers, Basic computer organization, Applications of computers, Input Devices, output devices, Soft copy devices, Hard copy devices.

Unit – II
Computer Memory and Processors : Introduction, Memory Hierarchy, Processor Registers, Cache memory, primary Memory, Secondary Storage devices, Magnetic
tapes, Floppy disks, Hard disks, Optical drives, USB Flash drives, Memory Cards, Mass Storage Devices, Basic Processor Architecture. Computer Software : Introduction to computer software, Classification of computer software, System software, Application software, Firmware, Middleware, Acquiring Computer Software, Design and Implementation

of Programs.

Unit - III

Operating Systems : Introduction, Evolution of Operating Systems, Popular Operating Systems, Introduction of Algorithms and Programming Languages : Algorithm, Control Structures used in Algorithms, Some more Algorithms, Flow Charts, Pseudo Code, Programming Languages, Generation of Programming Languages, Categorization of High Level Languages,

Unit - IV

Computer Networks : Introduction of Computer Networks, Connecting Media, Data Transmission Mode, Data Multiplexing , Data Switching, data routing techniques, Network Topologies, Types of Network, Networking Devices. The Internet : Internet, Internet Services, Internet Glossary, Types of Internet Connections, Internet Security

UNIT – V

Emerging Computer Technologies : Distributed Networking, Peer to peer Computing , Grid Computing, Cloud Computing, Utility Computing, On-demand Computing, Wireless network, Bluetooth, Artificial Intelligence.

Text books:

1. Fundamentals of Computers, Reema Thareja, Oxford Higher Education, Oxford University Press
2. Introduction to computers , Peter Norton, 6th Edition, Tata McGrawHill

Reference Books:

1. Computer Fundamentals , Anita Goel, Pearon Education India ,2010
2. Computer Concepts and Applications : **http://uwf.edu/clemley/cgs1570w/notes**
3. Computers in education : http://www.mhhe.com/peternorton
4. Check out Processors : http://www.pcmag.com

e-learning resources:

http://nptel.ac.in/courses.php

http://jntuk-coeerd.in/