Syllabus – Undergraduate Programmes

BASICS OF NETWORKING

Objectives

- This course introduces to install, configure, and troubleshoot a computer network.
- This course first introduces the fundamental building blocks that form a modern network, such as protocols, topologies, hardware, and network operating systems.
- It then provides in-depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, and security.

Level I – First Year


Level II – Second Year

Introduction to various networking devices: Routers, Switches, Modems, Hubs etc. Wired and Wireless technology. Inside the PC: Opening the PC and identification, Study of different blocks, Assembling and disassembling. Network basic and configuration: Setting IP addresses, Sharing files and folders, Network troubleshooting, PING test, ipconfig etc.

Level III – Third Year


List of Practicals

1. To connect computers in different ways in a LAN (Topologies-star, ring, bus, tree)
2. To connect and understand different network devices used in LAN- Hubs, Switches, Routers
3. To study the constructional details of transmission media- co-axial cables, twisted pair cables, optical fibre cable.
4. To create network cable using RJ 45 connectors.
5. Connections of two hubs by creating cross over connections.
6. To install a network interface card (NIC)
7. To install TC/IP protocol and configure its advance property.
8. To locate MAC address of computer.
9. To Install network printer.
Reference Book
(1) Networking Complete BPB Publication
(2) Computer Networking Andrew S. Tanenbawan By PHI