

<b>COURSE TITLE</b>	<b>: COMPUTER HARDWARE NETWORKING LAB</b>
<b>COURSE CODE</b>	<b>:460</b>
<b>COURSE CATEGORY</b>	<b>: A</b>
<b>PERIOD/WEEK</b>	<b>: 5</b>
<b>PERIODS/SEMESTER</b>	<b>:90</b>
<b>CREDITS</b>	<b>:2</b>

### **COURSE OBJECTIVES :**

On Completion of this course, the student should able to :

1. Study various motherboards- non-integrated, semi-integrated & integrated
2. Familiarise different form factors
3. Understand the motherboard components
4. Familiarise the different types of expansion slots (ISA, EISA, PCI, AMR )
5. Study the expansion cards namely add-on-cards ( audio, graphics, i/o, tv tuner etc.)
6. Study different types of switch mode Power Supply – AT, ATX, NLX
  1. Understand the power requirement for various components in a system
7. Study the different connectors and ports of a PC
8. Understand the various cables in a computer system
9. Familiarise the different types of memory modules
10. Study various secondary storage systems-Floppy drive/disk, Hard Disk, Flash drives, CD
11. Understand the internal structure of Hard Drive, Floppy drive , CD Drive
12. Understand the procedure of assembling a computer system
13. Study the various techniques for low level , high level formatting
14. Familiarise the hard disk partitioning using different tools
15. Study the procedure for installing Operating System – Linux.
16. Software Installation and Management.
17. Familiarise the management of operating system components
18. Understand the concept of networking
19. Understand the concept of networking
20. Network Hardware
  1. Study of Ethernet.
  2. Topology
  3. Study of different Cables
  4. Study of Connecting devices –NIC, hub, switches, routers etc
  5. Study of Wireless devices.
21. Network Configuration
  1. TCP/IP Concepts
  2. Wiring
  3. network testing and debugging
  4. Configuring Network.
22. Accessing remote servers (ssh)
23. File sharing (scp, gui based)
24. DHCP Configuration
25. Configuring internet (dsl/dialup, 3g etc..)
26. Sharing internet over lan - IP Masquerade NAT

27. Study of Network File System (nfs, remote mounting)
28. Sharing files,data, printers with Windows (samba)