CS 352	Computer Networks	3-0-0-6
Network Basics: Evolution of computer networks; Network Models, Network Media, LAN, MAN and WAN, needs and goals of networking topology, network architecture, need for protocols, OSI Reference Model, layer services, primitives and service access points. **Data link layer:** Framing, HDLC, PPP, sliding window protocols, medium access control, Token Ring, Wireless LAN; Virtual circuit switching: Frame relay, ATM; **Network Layer:** Internet addressing, IP, ARP, ICMP, CIDR, routing algorithms (RIP, OSPF, BGP); **Transport Layer:** UDP, TCP, flow control, congestion control; Introduction to quality of service; **Application Layer:** DNS, Web, email, authentication, encryption.		
Texts: *1. Andrew S. Tanenbaum, David J. Wetherall, "Computer Networks", 4th Ed., Prentice Hall, 2003.*		
References: *1.* Behrouz A. Forouzan*, "Data Communications and Networking", 4th Ed., Tata Mcgraw Hill, 2006.*		

CS 353	Computer Networks	0-0-4-4
Linux network configuration, measurement and analysis tools: Wireshark. Socket programming: TCP and UDP, peer-to-peer applications; reliable communications using unreliable datagrams; client-server using RPC; concurrent servers using threads or processes. Assignments on simulation of LAN, Wi-Fi etc using network simulator.		
References: *1. http://tldp.org/* *2. http://www.nsnam.org/documentation/*		

Grading:

4 Tests – Best 3 will be considered. Therefore, if you miss the test, then there will be no re-test.

Assignments would carry 10% weightage.