CS204	Computer Networks	L	T	P	C
		4	0	0	4

Introduction to Computer Networks Network definition; network topologies; network classifications; network protocol; layered network architecture; overview of OSI reference model; overview of TCP/IP protocol suite.

Data Communication Fundamentals and Techniques Analog and digital signal; data-rate limits; digital to digital line encoding schemes; pulse code modulation; parallel and serial transmission; digital to analog modulation-; multiplexing techniques- FDM, TDM, WDM; transmission media.

Networks Switching Techniques and Access mechanisms: Circuit switching; Packet switching- connectionless datagram switching, connection-oriented virtual circuit switching.

Data Link Layer Functions and Protocol: Error detection and error correction techniques; data-link control- framing and flow control; error recovery protocols- stop and wait ARQ, go-back-n ARQ; selective-repeat ARQ, Point to Point Protocol on Internet.

Multiple Access Protocol and Networks: CSMA/CD protocols; Ethernet LANS; connecting LAN and back-bone networks- repeaters, hubs, switches, bridges, router and gateways;

Networks Layer Functions and Protocols: Routing; routing algorithms; network layer protocol of Internet- IP protocol, Internet control protocols.

Transport Layer Functions and Protocols: Transport services- error and flow control, Connection establishment and release- three way handshake; Congestion control;

Overview of Application layer protocol: Overview of DNS protocol; overview of WWW &HTTP protocol.

Suggested Readings:

1. B. A. Forouzan: Data Communications and Networking, Fourth edition, THM .
2. A. S. Tanenbaum: Computer Networks, Fourth edition, PHI.
3. Douglas E. Comer: Computer Networks and Internets, Pearson.

CS205	Software Engineering	L	T	P	C
		4	0	0	4

Introduction to Software Engineering: Definition, Software development and life-cycle models, CMM, Software Quality, role of metrics and measurement.