



**MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR**

(An Institution of National Importance under NITs Act, Established by Govt. of India)

**मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर**

**JLN Marg, Jaipur-302017 (India)**

<b>Code: CST307</b>	<b>Computer Networks</b>	<b>Credit: 03</b>
		<b>L-T-P: (3-0-0)</b>
<b>Course Content</b>	Computer Network Architecture, Circuit switching, Packet And Message Switching, Network Structure. OSI 7-layer architecture. Physical Layer, Data Link Layer, Framing, Error detection. Retransmission algorithms. Queueing models and introduction to Little's theorem, M/M/1 and M/M/m queues. Network of queues. Introduction to M/G/1 queues, reservations and priority. Stability of queueing systems. Multiple access and Aloha. CSMA/CD and Ethernet. High Speed LANs and Token Ring. High speed switch scheduling. Broadcast routing and spanning trees. Shortest path routing. Distributed routing algorithms, optimal routing. Flow control – window/credit schemes, rate control schemes. Transport layer and TCP/IP. Introduction to ATM networks and Network Management And Interoperability. Performance Issues Of LAN And WAN	
<b>Important Text Books/References</b>	<ol style="list-style-type: none"><li>1. Data Networks: Bertsekas and Gallager, Phi.</li><li>2. Computer Networking A top down Approach: J.F.Kurose, Pearson.</li><li>3. Data &amp; Computer Communication : W. Stalling , Phi</li><li>4. Computer Networks: L. Peterson and Davie, MKP</li><li>5. Computer Networks and Internet: D.E. Comer, Pearson</li></ol>	