

Course code	Course Name	L-T-P-Credits	Year of Introduction
IT334	Computer Networks Lab	0-0-3-1	2016
Prerequisite : IT307 Computer networks			
Course Objectives <ul style="list-style-type: none"> • To implement important computer networking protocols. • To manage Layer2 switching service. • To configure Virtual LANs and access control list. • To troubleshoot an internetwork. 			
List of Exercises / Experiments (Minimum of 9 mandatory out of 11) <p style="text-align: center;">INTERNETWORKING BASICS</p> <ol style="list-style-type: none"> 1. Familiarization of Internetworking - Network Cables- Colour coding - Crimping. Internetworking Operating Systems- Configurations. <p style="text-align: center;">IP ROUTING</p> <ol style="list-style-type: none"> 2. Implementing static routing. 3. Implementing dynamic routing using RIP. 4. Implementing dynamic routing using OSPF. 5. Implementing dynamic routing using EIGRP. <p style="text-align: center;">SWITCHING SERVICES</p> <p style="text-align: center;">VIRTUAL LANS</p> <ol style="list-style-type: none"> 6. Layer 2 Switching configuration -VLAN configuration. 7. VTP Configuration, VTP pruning. 8. Implement inter-VLAN routing. <p style="text-align: center;">SECURITY</p> <ol style="list-style-type: none"> 9. Access Control List <ol style="list-style-type: none"> a. Standard Access Lists. b. Extended Access Lists. <p style="text-align: center;">MANAGING A INTERNETWORK</p> <ol style="list-style-type: none"> 10. Backup and restoring IOS. 11. Familiarization of network simulators. <p style="text-align: center;">Class Project (Minimum one mandatory per group)</p> <ol style="list-style-type: none"> i. Implementation of an organizations network with security using any routing protocols. ii. Implementation of network using VLAN and configure inter-vlan communication 			
Expected Outcome The students will be able to <ol style="list-style-type: none"> i. configure a network using routing protocols and VLAN ii. manage a internetwork 			
References <ol style="list-style-type: none"> 1. CCNA –Cisco Certified Network Associate. Study Guide ,Todd Lammle, CCSI, Wiley India Edition-Sixth Edition 			