Course Code: EITS - 213		
Course Code: EITS - 213 **Course Title: Computer Networking- IV**		
Number of Credits: 03	**Total Hours: 42**	**Total Marks: 75**

Prerequisites for the course

Students should know the topics covered in Computer Networking I, II, III

Objectives of Course

1. To understand Switch stacking
2. To understand NAT
3. To understand WAN
4. To understand Network Management
5. To understand Wireless Technologies

Course Content

Unit I	**Switch Stacking**	**6 Hours**
Physical Stacking Architecture, Stacking Features, Stacking Configuration, Full utilization of ring bandwidth, Master switch selection, Backup Master selection, Box ID Assignment Rules, Stacking topology change, Single IP (SIM) Management, SIM Group, SIM Topology, SIM Operation, Stacking guidelines, Stacking Configuration		
Unit II	**NAT**	**10 Hours**
NAT Basics, Types of NAT, NAT Configuration		
Unit III	**WAN**	**10 Hours**
Introduction, WAN Bandwidth, Connection types, WAN Support, WAN Cable		
Unit IV	**Network Management**	**6 Hours**
Network management, Infrastructure for Network management, The Internet standard management framework.		
Unit V	**Wireless Technologies**	**10 Hours**
Wireless Access Points, Wireless Network Interface Card, Wireless Antennas, Wireless regulations, Wireless topologies.		

Pedagogy

Lectures/Tutorial/Assignments

Course Outcome

On completion of the course, students will be able to:

1. Understand Switch stacking
2. Understand NAT
3. Understand WAN
4. Understand Network Management
5. Understand Wireless Technologies

References/Readings

1. Bell, C. G., Habermann, A. N., McCredie, J., Rutledge, R., & Wulf, W. (1970). Computer networks. In *Computer* (Vol. 3, Issue 5).
2. TANENBAUM, A. S., & WETHERALL, D. J. (2005). Computer networks. In *Computers, Software Engineering, and Digital Devices.* https://doi.org/10.4337/9781784711603.00023
3. D-Link Certified, DCS Switching Training Guide
4. D-Link Certified, DCS Switching Lab Manual
5. Cisco Certified Network Associate Training Guide
6. James F. Kurose, Keith W. Ross, Computer Networking A Top down Approach, 7th Edition, Pearson, 2001.
7. Data communications and Networking, Behrouz A Forouzan, Tata Mc Graw-Hill 5th edition, 2013
8. Larry Peterson and Bruce S Davis "Computer Networks :A System Approach" 5 thEdition , Elsevier -2014
9. Douglas E Comer, " Internetworking with TCP/IP, Principles, Protocols and Architecture" 6th Edition, PHI - 2014
10. An Engineering Approach to Computer Networks-S. Keshav, 2nd Edition, Pearson Education
11. Data Communications and Networking – Behrouz A. Forouzan. Third Edition TMH.