MARWADI UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF
INFORMATION AND COMMUNICATION TECHNOLOGY
Rajkot-Morbi Highway, Gauridad, Rajkot – 360003

MA104 VLSI Lab

Code	Course Name
01CT0503	Computer Networks

Sr.	Title	CO
1	Introduce networking simulator tool and **demonstrate** various functionality.	CO1
2	**Perform** basic CLI commands to **configure** switch and router.	CO4, CO6
3	**Simulate** star topology and check the connectivity between devices.	CO6
4	**Configure** the router to secure the port and Telnet from unauthorized users. **Analyze** enable secret and password login commands in detail.	CO4, CO6
5	**Perform** static routing protocol and **analyze** the results.	CO4
6	**Perform** dynamic routing protocol (RIP) and **analyze** the results.	CO4
7	**Perform** dynamic routing protocol (OSPF) and **analyze** the results.	CO4
8	**Design** WAN as per the given scenario and get the connectivity between all PCs using BGP.	CO6
9	**Configure** DHCP server.	CO5
10	**Simulate** VLAN and verify the VLAN concepts the results.	CO3, CO6
11	Monitor the live/real time network and **analyze** the concepts of various networking protocols like IP, TCP, UDP, etc.	CO1, CO2, CO3, CO5
12	Monitor the live/real time network and **analyze** the concepts of various networking protocols like ARP, RARP, DHCP, HTTP, etc.	CO1, CO2, CO3, CO5
Advance experiments		
13	**Design** and **simulate** IoT scenario.	CO6
14	Guided project.	CO6

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Course Objective
The objectives of this course are to understand the significance and concepts of computer networks, conceptualize and appreciate the layered model for computer networking, identify basic protocols and design issues for layered model, and design and implement protocols related to various networking layers.

Sr.	Course Outcomes
1	Understand the functionality of various protocols, models and networks. **(Understand)**
2	Analyze various flow and error control algorithms. **(Analyze)**
3	Analyze different medium access protocols and network hardware component. **(Analyze)**
4	Compare various static and dynamic routing protocol. **(Analyze)**
5	Understand various transport services, protocol and application layer functionalities. **(Create)**
6	Built and test various network topologies and routing protocols for various networks scenarios. **(Create)**

List of Tools/Open-Source Software
• Packet tracer • Wireshark

Dr. Arjav Bavarva
Course Instructor

Prof. R. D. Oza
Lab In charge

Prof. C. D. Parmar
HOD