**Course Code: CSE303 Credit:1**

**Semester: V**

**COMPUTER NETWORKS LABORATORY**

**Course Objectives**

This course will help the learner to understand socket programming using TCP and UDP, simulate and analyse various network models. It makes the learner to understand various protocols and standards in networking.

1. Development of a chat application based on socket programming

2. Development of a secure file transfer application

3. Implementation of Remote Method Invocation

4. Simulation and analysis of wired network

5. Simulation and analysis of wireless network

6. Simulation and analysis of TCP flow control and TCP congestion control

7. Simulation and comparative analysis of distance vector routing and link state routing

8. Simulation of Broadcast routing and multicast routing

9. Simulation and analysis of DHCP protocol

10. Simulation and analysis of Ethernet LAN IEEE 802.3

11. Simulation and analysis of Wireless LAN IEEE 802.11

12. Study of SASTRA network infrastructure

**COURSE LEARNING OUTCOMES**

Upon successful completion of this course, the learner will be able to

* • Demonstrate socket programming and RMI
* • Evaluate remote method invocation protocol
* • Analyze various TCP flow control and congestion control algorithms
* • Compare and criticize various routing protocols
* • Demonstrate wired LAN using simulator
* • Evaluate wireless LAN using various metrics