



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned				
		L	T	P	L	T	P	Total	
CPL601	Networking Programming Laboratory	--	--	4	--	--	2	2	
		Examination Scheme							Total
		ISE		ESE			Total		
		40		-		20		60	

Pre-requisite Course Codes		CPC504 (Computer Networks)
At end of successful completion of this course, student will be able to		
Course Outcomes	CO1	Configure Linux Network, View and edit routing tables.
	CO2	Configure Linux FTP server, DNS server and web server.
	CO3	Implement Sockets programming and understand TCP/IP.
	CO4	Provide and appreciate security features for network.

Exp. No.	Experiment Details	Ref.	Marks
1	A. Study of Networking Commands (Ping, Tracert, TELNET, nslookup, netstat, ARP, RARP) and Network Configuration. B. Linux Network Configuration. Determining IP Address and MAC Address using ifconfig command. <ol style="list-style-type: none"> a. Configuring NIC's IP Address b. Changing IP Address using ifconfig. c. Static IP Address and Configuration by Editing. d. Determining IP Address using DHCP. e. Configuring Hostname in /etc/hosts file. 	1	5
2	Linux Networking Commands. <ol style="list-style-type: none"> a. Using netstat and route commands to do the following. <ol style="list-style-type: none"> i. View current routing table. ii. Add and delete routes. iii. Change default gateway. b. Configuring remote login Services, telnet & ssh. c. Configuring IPTables. 	1	5
3	A. To configure Linux FTP server using VSFTPD. <ol style="list-style-type: none"> a. Set up anonymous access of FTP server. b. Enable individual logins and add FTP users with Read only access. c. Transfer Files. 	2	5



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	B. To install and configure web server.		
4	To install and configure DNS server.	2,3	5
5	To implement chat server in C language.	4	5
6	To implement port scanner in C or Python language.	5	5
7	Mini Project		10
Total Marks			40

References:

- [1] Olaf Kirch & Terry Dawson, "Linux Network Administrator's Guide" 2nd Edition June 2000.
1-56592-400-2.
- [2] <https://help.ubuntu.com/lts/serverguide/serverguide.pdf>
- [3] <https://help.ubuntu.com/lts/serverguide/dns.html>
- [4] Michael J. Donahoo, "TCP/IP Sockets in C: Practical Guide for Programmers", Second Edition
- [5] William Stallings, "Cryptography and Network Security Principles and Practices", Fourth Edition.