



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
ITL704	Wireless Technology Lab	--	--	2	--	--	1	1
		Examination Scheme						
		ISE		ESE			Total	
				Practical	Oral			
40	-		20		60			

Pre-requisite Course Codes	ITC704 (Wireless Technology)	
After successful completion of the course, student will be able to:		
Course Outcomes	CO1	Understand the characteristics/ fundamentals of Wireless communication Channel
	CO2	Understand various new trends in wireless communication and their technologies
	CO3	Understand various protocols and topologies used in new wireless communication technologies.
	CO4	Understand the need of security and economics in wireless system

Exp. No.	Experiment Details	Ref.	Marks
1	Installation of NS2 on ubuntu12.04.	1,2	5
2	To understand the cellular frequency reuse concept fulfilling the following objectives: a. Finding the co-channel cells for a particular cell. b. Finding the cell clusters within certain geographic area.	1,2	5
3	To study logical and traffic channels of GSM.	1,2	5
4	To simulate a simple wireless communication between two mobile nodes and one static node using TCP connection and using services of FTP for data transfer.	1,2	5
5	To study and use different transmission ranges in wireless scenario in NS2.	1,2	5
6	Case study on security issues in wireless networks. Following are the objectives: a. Need of security in wireless networks b. Various attacks on wireless networks c. Security measures and protocols used for security.	4	5
7	To investigate MAC contention window for Wireless Network in NS2.	3,4	5
8	To study X-graph for time and congestion window for a TCP communication in NS2.	1,2	5
Total Marks			40



Sardar Patel Institute of Technology

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

References:

1. Nicopolitidia, M S Obaidat, G I Papadimitriou, "*Wireless Networks*", Edition 2010, Wiley India Student.
2. T L Singal, "*Wireless communications*", Tata McGraw Hill Education private Ltd. 2011.
3. Dr.Nupur Prasad Giri, "*Wireless Technology*", Dreamtech Press.
4. Dr. Sunilkumar S. Manvi & Mahabaleshwar S. Kakkasageri, "*Wireless and Mobile Networks*", Wiley India.