



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
ETL 801	Wireless Networks Laboratory	--	--	2	--	--	1	1
		Examination Scheme						
		ISE		ESE			Total	
				Practical	Oral			
40		--	20		60			

Pre-requisite Course Codes	ETC 801: Wireless Network	
After successful completion of the course, student will be able to		
Course Outcomes	CO1	Students will be able to install NS-3 and OMNET++.
	CO2	Students can generate and simulate wireless network scenario in NS3 & OMNET++.
	CO3	Students can verify results by plot in GNU plot and capture packets in Wire-shark.

Exp. No.	Experiment Details	Ref.	Marks
1	Installation of ns-3 and Omnet++.		5
2	Perform UDP communication between two nodes. Display the results using NetAnim, GNUplot and wireshark.		5
3	Perform UDP communication between three nodes with variable data rates.		5
4	Design basic LTE communication using ns-3.		5
5	Perform communication between mobile phone and Bluetooth Hardware Module.		5
6	Design LTE mobility using handover using ns-3.		5
7	Design Wimax communication using ns-3.		5
8	Design simple Wi-fi communication using ns-3.		5
9	Design Mesh Wi-fi communication using ns-3.		5
10	Design MAC Protocols for WSN and Simulate in Omnet++.		5
11	Design Routing Protocol for WSN and Simulate in Omnet++.		5
12	*Design Transport Control Protocol for WSN and Simulate in Omnet++.		5
13	*Prepare A Survey Report on Middlewares used in Sensor Networks.		5
*Any 08 Experiment to be performed.			Total Marks 40

References:

As per recommended by faculty.