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
ETL702	Advanced Communication Engineering Laboratory I	--	--	2	--	--	1	1
		Examination Scheme						
		ISE		ESE				Total
				Practical		Oral		
		40		--		20		60

Pre-requisite Course Codes		ETC 702: Mobile Communication
After successful completion of the course, student will be able to		
Course Outcomes	CO1	Understand hardware components of Mobile Communications Systems using Open Source SMS Gateway.
	CO2	Use of Modulation Techniques using GNU Radio, Mobile Tx/Rx using USRP

Exp. No.	Experiment Details	Ref.	Marks
1	Study of Hardware components of Mobile Communications Systems		5
2	Study of GSM modem: i]Install and configure minicom, wvdial & AT Commands ii]python scripting iii]Open Source SMS Gateway [Bonus]		5
3	Channel Allocation Techniques		5
4	Modulation Techniques using GNU Radio		5
5	Mobile Tx/Rx using USRP		5
6	Virtual Lab		5
7	Spread Spectrum Modulation		5
8	Wireless Path Loss Computations: i]Free-space Propagation Path Loss Model ii] Outdoor Propagation Model - Okumura Model iii] Outdoor Propagation Model - Hata Model		5
9	RF Propagation Models in Network Simulator (ns-2)		5
10	Open Source LTE/EPC Network Simulator using ns-3		5
11	Open Wireless Network Simulator (openWNS)		5
***Any 08 Experiment to be performed.**		**Total Marks**	**40**

References:

As per recommended by faculty .