



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	
CPEL8033	Elective-III Adhoc Wireless Networks Lab	--	--	2	--	--	1	1	
		Examination Scheme							Total
		ISE		ESE			Total		
				Practical	Oral				
		40	-		20		60		

Pre-requisite Course Codes	CPE8033(Adhoc Wireless Networks)	
At end of successful completion of this course, student will be able to		
Course Outcomes	CO1	Describe the unique issues in ad-hoc/sensor networks.
	CO2	Describe current technology trends for the implementation and deployment of wireless ad-hoc networks.
	CO3	Discuss the challenges in designing MAC, routing and transport protocols for wireless ad-hoc networks.
	CO4	Discuss the challenges in designing routing and transport protocols for wireless Ad-hoc networks.

Exp. No.	Experiment Details	Ref.	Marks
1	Installation of NS2 in Ubuntu 12.04 Linux.	1,4	5
2	Build and exchange data in simple infrastructure and Adhoc network by using personal computer and Android based mobile.	1,3	5
3	Develop sample wireless network in which a. Implement AODV and AOMDV protocol. b. Calculate the time to receive reply from the receiver using NS2. C. Generate graphs which show the transmission time for packet.	1,3	5
4	Implement wireless network. Capture data frame and identify fields using NS2.	2,4	5
5	Configure Wireless Access Point (WAP) and build different networks.	3,4	5
6	Implement Mobile device as a wireless access point.	1,4	5
7	Communicate between two different networks which has following specifications: a. One network has Class A network with "Tora protocol" b. Second has Class B network "AODV protocol"	2,3	5
8	Case study on Security in wireless Ad hoc wireless Networks.	1,3	5
Total Marks			40

References:



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- [1] Siva Ram Murthy and B.S.Manoj, "Ad hoc Wireless Networks Architectures and protocols", 2nd edition, Pearson Education, 2007.
- [2] Charles E. Perkins, "Adhoc Networking", Addison – Wesley, 2000.
- [3] C. K. Toh,"Adhoc Mobile Wireless Networks", Pearson Education, 2002.
- [4] Matthew Gast, "802.11 Wireless Networks: The Definitive Guide", 2nd Edition, O'Reilly Media, April 2005.
- [5] Stefano Basagni, Marco Conti, Silvia Giordan and Ivan Stojmenovic, "Mobile Adhoc Networking", Wiley-IEEE Press, 2004.
- [6] Mohammad Ilyas, "The handbook of Adhoc Wireless Networks", CRC Press, 2002.