

School of CET

MITWPU, Pune

Subject: PE-I, CET4004B (WMDS)

Class: TY CSE

Sem-V

A.Y.2022-23

Wireless and Mobile Device Security - Laboratory Assignments			
Lab No.	Contents (Any 10 Laboratories)	Workload in Hrs	
		Theory	Lab
1	Install and Configure Network Simulator tool such as Network Simulator 2 or NetSim or QualNet and study its components and eco system.	-	02
2	Write a program to simulate two node wireless network. You may use NetSim or NS2 or QualNet for this experiment.	-	02
3	Write a program to simulate routing in mobile Ad-Hoc network with multiple nodes. You may use NetSim or NS2 or QualNet for this experiment.	-	02
4	Study the security permissions for applications in android phones. Either demonstrate Android security permission configurations or Write the android app to demonstrate permissions usage control in android phones.	-	02
5	Write an android program to encrypt and decrypt text file. Use Bouncy castle library API or Java cryptography API.	-	02
6	Write a program for user authentication application in Java or Python. Send OTP (one time passwords) to your mobile phones from this application and validate that OTP. It should tell of OTP is correct or wrong. Also add timing restriction in the application.	-	02
7	Configure access point and manage the access control for security. Access point is a networking hardware device that allows a Wi-Fi device to connect to a wired network.	-	02
8	Study, comparison and configuration of different types of Access points routers such CISCO, TP Link, DLink, Link Sys, NetGear. Study Technical specification of such a Wi-Fi routers.	-	02

9	Install, Configure and Demonstrate any one Wi-Fi traffic analyzer using sniffing tools such as WireShark, airCrack, AirSnort, etc.	-	02
10	Consider Android and iPhone device. Analyse, experiment all aspects of device security in these mobile devices. Compare and contrast pros and cons.	-	02
11	Write an Android Application to create secured mobile wallet with cryptographic algorithms	-	02
12	Home Automation (Monitoring and Control) with ZigBee Devices: Scenario Description: ZigBee allows small, low-cost devices to quickly transmit small amounts of data such as temperature readings for thermostats, on/off requests for light switches, or keystrokes for a wireless keyboard. The scenario shows an application of ZigBee technology for Home Automation. It demonstrates the monitoring and control capability that can be achieved with ZigBee.	-	02