**EC7020: COMPUTER AND NETWORK SECURITY**

**LABORATORY EXPERIMENT: 05**

**WIRELESS NETWORK SECURITY**

Reg No: 29/11/2023, from 13:00 to 16:00

**AIM**: Students will learn the fundamental principles of wireless networks and wireless network security by using network auditing tools.

**OBJECTIVES:**

* To understand the wireless networks.
* To understand the functionalities of network auditing.
* To understand the fundamentals of wireless network security.

**Following are the tasks for this lab session.**  (30 Marks)

(Group Task)

1. select a network security audit tool that works with Wi-Fi networks. You have to do a detailed analysis of a Wi-Fi network which you have to create using a mobile hotspot.

The report you submit must include details

* + 1. About the tool and its features
    2. Alternative tools available in the industry and reason for your selection
    3. The Details of Wi-Fi Hotspot
    4. Network Topology
    5. Host Details
    6. Network Analysis

**Attach Screenshots and explain content if necessary**.

Work Flow:

* Refer to the following links,
  + https://www.ictshore.com/hacking/nmap-tutorial/
  + <https://nmap.org/book/zenmap.html>
* Use one laptop for analyzer
* You can use as much as devices for scanning.
* Connect multiple devices with a same hotspot. The laptop should be connected with the same hotspot.
* Then scan the network and report the results.

(Individual Tasks)

1. You have to describe the Evolution of Wireless security protocols clearly. And include comparison. (30 Marks)
2. Compare the difference between Wired LAN and Wireless Network security protocols.

(10 Marks)

1. Briefly describe about packet tracing. And explain how packet tracer helps to crack Wi-Fi passwords. (10 Marks)

**Discussion** (Write the analysis of this lab experiment) (10 Marks)

**Conclusion** (Include the concise summary of those which have already been presented in the report) (10marks)

**Write your answers in this Lab Instruction sheet with the file name EC7020\_L5\_YourRegNo. Submit it as a PDF document archive all files and upload it to the teams. The same name conversion applies to the Zip.**