

University of Alexandria Faculty of Engineering

Electrical Engineering Department Communications Section

Course Name: Data Communication Networks **Course Code:** EE 486 **Lecturer:** Dr. Bassem Mokhtar **Academic Year:** Fourth Year 2015 – 2016 **Semester:** Spring 2016 **Teaching Assistant:** Eng. Nour Nabil

Lab Two: Wifi

Lab requirements:

- 1. Create a topology Node1, and Node 2 connected by a point to point connection.
- 2. Setup Node 2 as an access point to a WIFI network in which there is a third node called Node 3.
- 3. Setup Node 1 as a udp server and Node 3 as a udp client.
- 4. Setup Node 3's mobility model for it to start out of range of Nodes 1 and 2, and it approaches them with time.
- 5. Calculate Throughput and pcap for Node 1.
- 6. Can you vary wifi channel parameters to aid or impede the network's communication?... mention some parameters that can be used and how to change them.

Deliverables:

- Groups of 3 only.
- A running instance of your program .
- A report containing the screenshots for your sample runs and different trials (if any)
- Expect to be asked about WIFI and how to set up a WIFI network in ns-3
- You may use "third" for reference.