**Wireless link experiment**

**Requirements for antenna positioning system**

**V1.0**

**Mechanical system:**

- An AZ-EL positioning system is required to have the fixed side mounted on a pole.

- The moving side of the mounting system should be positioned by two DC motors on AZ-EL directions.

- The moving side of the mounting system should have a pipe where any type of antenna can be mounted.

- Therefore, experiments with different types of antennas can be done.

**Electrical systems:**

- it is necessary that the entire system will be powered from 12V DC lead battery so that it can be mounted on the field where no other power sources are available.

- it is necessary that AZ-EL motor driving system have the possibility to work from a maximum distance of 20m from antenna.

- the motor driving system must have the possibility to be connected to internet so that trough TCP/IP it will be provide positioning from a PC or a Phone.

- The PC application should have the possibility of using a joystick that is usually used for games.

- The system will be provide the option to use encoders or other solutions that provide feedback for AZ-EL antenna position.

- the electronic driving system will have the feature to retain indefinitely the AZ-EL position when an user command is received.

- the electronic driving system will have the feature to position the antenna at a fixed point given a previously stored position.