

## **ABSTRACT**

Antenna has many functions and variances depend on its types of communication. Antenna in generally is used for converting the leading wave which is through by transmission channel become the space wave or contray. Antenna has a significant role in the telecommunication development.

The fast and the variability of the wireless communication technology development appears a lot of new standard technologies. In this case, antenna as a device which is directly connected with the communication transmission channel is very needed. The application of the antenna such as hotspot and W-LAN. These standard technologies works approximately in range frequency 2,4 – 2,48 GHz. For the user who want to applicate this technology in their terminal device needs antenna which is work in that range frequency.

In this final project, writer design an antenna with wide bandwidth, that is an helical unidirectional antenna with sircular polarization, range frequency approximately 2,4 – 2,48 GHz, and can applicate in WiFi (Wireless fidelity). Writer analyze some variables, such as Vswr, bandwidth, gain, an radiation pattern which is shown by its value or by the measurement after writer made the antenna prototype.

Writer hope all of the analysis and the realible measurement data can appear a configuration of helical unidirectional antenna with range frequency WiFi and appear a configuration of helical unidirectional antenna with range frequency WiFi and sircular polarization which is support in many wireless communication technology systems.