

ABSTRACT

The development of mobile wireless communication technology in the modern world is increasing rapidly and diverse, so there are much of newer technology standards established and more sophisticated. One of the technology is Wi-Fi (Wireless Fidelity). Wi-Fi is a standard that is used in WLAN (Wireless Local Area Network). In order, to support these technology, it needs a device called antenna. The functions of antenna are receiving and transmitting electromagnetic energy that is important in wireless communications.

*Final Project titled “**Design And Implementation of Microstrip Slot Rectangular Antenna For Wi-Fi Applications**” are designed, simulated and implemented slot rectangular microstrip antennas to support Wi-Fi technology. The feeding technique which is use in this antenna is Proximity Coupled where the microstrip line is combined with U-shaped Tuning Stub. The design of dimensions of this slot antenna are determined by using theoretically calculation and simulations using Ansoft HFSS 10 software.*

The prototype antenna is capable of producing the characteristic antenna that works at the center frequency of 2.45 GHz with bandwidth of 344 MHz or 14:04% for VSWR values below 1.5. Gain obtained at 3.257 dBi. Pola radiation obtained is bidirectional. By using the slot, the U-shaped tuning stub and Proximity Coupled Feed techniques, antenna specifications can be met, especially in producing a wider bandwidth that can be applied as a transmitter on the Wi-Fi applications.

Keywords : Microstrip Slot Antenna, U-shaped Tuning Stub, Proximity Coupled, Wi-Fi