ABSTRACT

Nowadays Worldwide Interoperability for Microwave Access (WIMAX) technology not only used for Backhaul in wide wireless network, but also start to use in access network. That's why it required an antenna which has a thin, small, light and simple construction as a device in Personal Wireless Communication System.

This final project, which is titled ***Design And Implementation Of Microstrip Slot Rectangular Array Antenna For WIMAX Application On Frequency Range 3,3 – 3,7 GHz,*** *is discuss about design, simulate, and realization an antenna to support Broadband Wireless Access (BWA) especially WIMAX. This antenna is designed with Proximity Coupled as it feeding method. This final project begins with calculating the dimension of the antenna using function that define antenna dimension. The calculation results will be the input of simulation. The best results of some modification on antenna simulation will be use as dimension value on antenna fabrication.*

This antenna prototype can get a good antenna characteristic which is work on resonant frequency 3,5 GHz with 400 MHz or 11,43% bandwidth frequency for VSWR value below 1,5. By using four array method and Proximity Coupled as it feeding method, this antenna prototype can achieve the specification especially to get a wide bandwidth characteristic which is can apply on WIMAX technology.

Keywords: Microstrip Slot Antenna, Proximity Coupled Feed, WIMAX