ABSTRACT

Today wireless communications technology growth rapidly and has emerged assorted of new technology standards, one of them is WIMAX (Worldwide Interoperability for Microwave Access) which operating at frequency 2.3 GHZ, 2.5 GHZ, and 3.5 GHZ. Apparatus which cannot be discharged and absolute there must be in wireless communication system is antenna.

At this final assignment designed and implementation a circular microstrip antenna. Antenna will function as transmitter and expected to have frequency area range between 2300-2490 MHZ for the application of fixed WiMAX. Feeding method of circular microstrip antenna which will be designed done directly applies EMC (Electromagnetically Coupled) technique. The antenna is expected to have wide bandwidth with modification of circular microstrip antenna becomes circular microstrip antenna with stack resonator to have the character of wideband and has highly gain. Modification process applies to help Ansoft HFSS 9.2 software.

Key word : Microstripe antenna, WIMAX, Resonator ,Electromagnetically Coupled (EMC)