

ABSTRACT

Technological growth of mobile wireless communications in modern world is going faster and immeasurable. It makes a lot of emerging the new technology standard and sophisticated progressively. To provide that technology, Apparatus which cannot be discharged and absolute there must be in wireless communication system is antenna. Antenna is the device that transforms guided wave into free space wave and vice versa. The function of antenna as transmitter and receiver electromagnetic wave which very important in wireless communication.

Microstrip antenna is type of antenna which has thin board shape and can work at very high frequency. It has many shapes and one of the shapes is fractal sierpinski gasket. This shape has compact design, easy for fabrication and can integrate with circuit. But this antenna has various weaknesses such low bandwidth and low gain. To cover that, modification antenna will made to overcome this weakness.

At this final assignment designed and implementation microstrip array antenna with fractal sierpinski gasket patch which can operation in range frequency (2.3-2.4) GHz. At this frequency, it can implementation for provide WiMAX technology with ansoft HFSS as simulator software.

Key Word : Microstrip Antenna, Fractal Sierpinski Gasket, WiMAX