

ABSTRACT

Wireless technological growth not only influence in service communication but it influence in mobility users too. In mobility users, to make it easy to accessing, it needs more high quality devices to have maximal result. Antenna is one of the important things in wireless mobility. It is more needed in sending and receiving information or it is known as the electromagnetic wave transformation from and to the air.

Microstrip antenna is the type of antenna which has thin board shape and can work at very high frequency. Microstrip antenna has the easy for fabrication and can integrate it with the circuit. It is interest to research its performance. But this antenna has various weaknesses such low bandwidth and low gain.

In this final assignment has design and implemented microstrip antenna with fractal sierpinski gasket patch which can operation on dual GSM frequency, 900 and 1800MHz. By fractal sierpinski gasket, it can improve the gain power $\geq 6\text{dB}$ and improving bandwidth ≥ 70 and 170MHz with $\text{VSWR} \leq 2$.

Key words : Microstrip antenna, Fractal Sierpinski Gasket, GSM