

ABSTRACT

In telecommunication, antenna has an important rule. And it is in line with the increase of antenna development. The fractal antenna developed in case to get more efficient device. Fractal antenna is an antenna that is able to work well in several different resonant frequencies. This is very useful for cellular communication and WLAN.

Within this final project, there are some simulations of some fractal antennas using HFSS software. HFSS (High Frequency Structure Simulator) is a software which is usually used in antenna design, simulation and analysis. Because it has high accuracy and capable of being used in complex design.

The order of each fractal simulated antenna changed and then compared. From the comparison result, the pattern of the order changed analyzed based on the resonant frequency changed. Antennas are simulated include: Sierpinski Carpets and Sierpinski Gasket. From the simulations carried out we got the result that the more the order of fractal antennas, then the number of resonant frequency will increase.

Keyword : fractal antenna, fractal orde, HFSS