## **ABSTRACT**

When an antenna radiated electromagnetic wave then all area, a radiated pattern is a space where the energy is concentrated, yet in reality there are few energy in the out of it, but it does not detected by ordinary receiver's antenna. In teresterial's area which is surrounded by the obstacle, the energy that radiated out of area will occur the decrease of power lewel in transmitted.

At beginning a phenomenon of wave that transmitted by active electric motor near by receiver antenna that the energy detected give the negative impact in received signal, existence of the impact prove the presence of role electric motor waves and electromagnetic signal that received by antenna. Along with when a permanent magnet put near by antenna receiver result in there are some received signal periode that fill more better than before. With the existence of the impact and been manipulated based on signal characteristic transmitted with the superposition method the magnetic wave of permanent magnet with magnetic wave of received signal electromagnetic wave and to compare the bemwidth of both antenna dipole receiver at 500 MHz thus produce result more sensive antenna receiver, thus this phenomenon as handling decline signals power in teresterial area and surrounded by the obstacle that before held on by the satellite, with increase antenna sensitivity. so as writer ( Ridho Fermana Kusuma 111061107) appoint it with proof to spell out, explained and answered with easy and cheap method with this final project.

Key word's: Electromagnetic, area, teresterial, obstacle, transmittion, satellite, sensitivity.