ABSTRACT

In wireless communication nowadays, we needs a technology to overcome multipath fading problem and to provide a high speed data access, yet, it will become a trigger to a new technology with the use of multiple array antenna in transceiver and receiver known as MIMO (Multiple Input Multiple Output) technology.

High attainment rate transmission with the good mainstay and performance very wanted, for that reason channel estimation needed at system MIMO so that information of concerning channel condition at area between transmitters and receiver can be known.

There are some algorithm that can used to estimated the channel in MIMO system, in this research used invers matrix method. Will changes the sum of pilots and value of channel changes parameters and wll changes the value of S/N and will analysed the minimum value of that parameters which performance of system still good.

From the simulation result we can get that the more we use pilot symbol, the less the value of error channel, in simulation we can get in pilot symbols 128 symbol and the value of error channel will decrease with the value of SNR increase, in simulation we can get with SNR 20 dB. And, with changes of channel value, effect the value of error estimation channel will increase, in this simulation the value of channel is 50%. And we can get too, system will not work properly for the changing value of channel is more than 100%. In this simulation, can get with the changing value of channel, the value of error channel estimation will increase too. The result we can get too, the more speed of cnganging channel then will get the more of error channel . In this simulation, for speed of changing in 5 times.

Key Word : MIMO, Invers Matrix