ABSTRACT

In wireless communications, the communicating from sender to receiver will be big to the happening of a fading process. Pattern of arrival signals that accepted is random, and the happening of damping on the way signals to target represent the existing biggest problem in wireless communications. Therefore it need the existence of process estimate the channel at the reciever side to see the level of changes that happened.

In this research the channels that is being used have bases of MIMO (Multiple Input Multiple Output) communications and used by 2x2 dimension. While in course of the channel estimation is used matrix invers method. By altering the sum of pilots that is used and also the value of channel changes that is happened, hence will be checked and analysed by how many the amount of pilot symbols that enough for certain channel change values.

From the simulation result that the minimum pilot symbols that is needed by the system is equal to 8 pilot symbols at minimum Eb/No is equal to 2 dB.

Key words: MIMO, matrix invers