ABSTRACT

MC-CDMA (Multi-Carrier Code Division Multiple Access) is a mobile communications technology that is able to accommodate the needs of a diverse society. MC-CDMA is a multiple access technique that uses a combination of CDMA and OFDM (Orthogonal Frequency Division Multiplexing). This system has proven capable of improving performance in the CDMA mobile communication system and is able to handle multipath fading by using a technique combining on the receiver side.

In this final project performance analysis of MC-CDMA systems use algorithms MRC (Maximal Ratio Combining) in Rayleigh and Rician channels. MRC is a technique of combining in the receiver where the signal number N equated phase angle then each branch weighted with a fading. SNR resultant is the sum of all branches.

The simulation results obtained in the form of performance comparison system MC - CDMA using techniques MRC on the canal Rayleigh and Rician in the form of a graph of BER (Bit Error Rate) against Eb / No with different variables, namely the number of subcarriers, variation movement of the user, the use mapper different, the use of techniques combining different, and variations in the number of users

Keywords: MC-CDMA, MRC, Rayleigh, Rician, BER, Eb / No