

ABSTRACT

User mobility is an advantage in wireless communication at this time. Meanwhile, they can cause transmitted signal through channel getting some effects because of several factors, they are multipath fading. Sometimes received signal is fluctuated and this can affect on performance system especially on CDMA 2000 1x.

For analyzing effect of fluctuated signal because of various user velocities which is affected by multipath fading, author analyzed by simulating CDMA 2000 1 x transmitting passed on channel of multipath fading Rayleigh distributed. Transmission model used is only on physical layer, they are between mobile station and base station formed encoder, interleaving, Walsh code and QPSK modulation.

The research output shows results of user velocity that will decrease quality performance of signal which is received or transmitted with increasing of BER value and E_b/N_0 needed. Thus, the number of user which can be handled by user is more decreased and Outage probability is more increased. By analyzing some performance parameter above, we can know the correlation, and do an effort to increase the performance on CDMA 2000 1 x system cellular.