

## ABSTRACT

In the CDMA system, near far effect overcome by power control, so all MS will have the same power level when the signal to the BTS. The transmitted signal will experience a good variety or phase amplitude when he arrived at the receiver (due to fading). Thus to reduce losses due to fading power control is capable of predicting the next power level to be emitted so that the signal power level is still acceptable side of the recipient.

Power control is designed to overcome the fast fading is a closed loop power control, transmit power settings in which MS made by the BTS. In a power control algorithm is required SIR estimator to determine the level of SIR of the user. SIR value is used by power control algorithm to determine whether the user must raise or lower its power in the next period. For obtain of SIR values can use several algorithms. In this final task is testing the adaptive power control algorithm. The results of the test is how how well the algorithm used to obtain the value of SIR

In this final task to analyze the performance of ASPC with MLE Estimator at various speed and active user. The simulation results show that performance of ASPC at 0 km/h and 5 km/h obtain well results. If speed increasing so the performance of this method is not good enough, acctually for 80 km/h.

**Keyword :** *Power Control, ASPC, MLE Estimator*