

ABSTRACT

Power Control is a method used in a cellular system to control how much power should be released by MS or BTS. In CDMA system power control is the most significant factor in measuring the capacity and system performance.

Kalman filter is an estimation method based on the noise measurement. Kalman filter consists of predictions and corrections that make this method robust.

Kalman Filter algorithm does the temporal observation in interference and CDMA system gain. Hence the observation is used as the estimator to measure the interference and the gain values in the next condition

This final project will compare the Kalman Filter with Novel Filter. The system that will be used has 3 variants of MS velocity. Those are 0 km/hour, 5-50 km/hour, 50-100 km/hour.

Key word : *Power Control, Interference and Gain, Kalman Filter*