

Abstract

Technology in system of cellular communications kept on to expand along with requirement MS. This Technology growth started from technology AMPS and later then GSM, but technology second in the reality is unable to accommodate a lot of amount MS because technique multiple access still be conventional. With use of CDMA technology being based on spectral communications gone the round of a the problems can be overcome.

In this final project, simulation use influence of power control uplink with the method of closed loop in system cellular communications CDMA at several cell and MS will be move on to inter cell. Process the simulation include the simulation of user shift from one cell to another cells, the simulation use power control in overcoming near-far problem, the simulation of *power control* against the system capacity, and user alteration position againsts E_b/I_o value. At method of reverse link closed loop power control, BTS will arrange the emittance of each MS residing in each cell. until that power accepted by BTS from all MS residing in each cell is same power. That is mention happened if E_b / I_o MS of under value E_b / I_o threshold (7 dB), hence BTS will command the MS for the increase its emittance. And go into effect on the other way, if MS own the E_b / i_o larger ones its value [is] compared to E_b / I_o threshold (7 dB), hence BTS will command the MS to degrade its emittance.

Cell capacity without power control is unpredictable, while 3 cell capacity with power control is up to 150 active user. User movement from a cell to another cell on the condition with power control is causing the value of E_b/I_o from a user is above threshold with the condition is 150 user. While on the condition without power control, user who move from a cell to another cell is causing drop call because every user have same emittance, so that the receive signal on the base station from a mobile station which is near from base station is stronger than receive signal on base station from mobile station which is on the frontier cell. Power from far mobile station is dominated by power from mobile station which is near from base station.