

ABSTRACT

The mostly way of BTS (Base of Transceiver Station) positioning are by modeling cell in the form of hexagonal geometric or manual positioning. In the other side the both ways are oftentimes disregard the important geographical information which frequently influence the BTS performance, so that the coverage wanted oftentimes not reached. And if reckoning information geographical aspect by manual positioning oftentimes pass the time because every position or area have the different geographical information.

Genetic algorithm is an algorithm of problem solution seeking or parameter solution which is look as and apply the experienced selection mechanism and also genetic manipulation. This algorithm also used for the problem parameters optimize.

At this final assignment conducted problem solution seeking of BTS location positioning paying attention to geographical information aspect automatic from BTS positioning conducted in manual particularly first. The solution seeking use the genetic algorithm. Genetic algorithm used for the coverage optimize by paying attention to possibility of disseminating MS (Mobile Station) also.

The result from BTS positioning optimize with the genetic algorithm showed by increasing the generation, size of population and value of cross over probability, greater and quickly reaching of best fitness value. For a while addition value to the mutation probability relative do not have an effect on fitness value. The result of BTS positioning optimize with the genetic algorithm conducted in region of town Bandung in the reality can boost up the coverage of BTS equal to 3,16% and also decrease blank spot of downtown area by moving area of blank spot to boundary