

ABSTRACT

Nowadays, communication technology development increase rapidly so that communication servicing demand which has the best quality, effective, and efficient is required to satisfy every consumer. Because of that, every cellular companies have to increase communication network quality especially BTS placing in one specific area.

In this final project, we will make one simulator or one system which is based on Geographic Information System where it can visualize BTS placing with specific coverage area. With this application or system, we hope that an engineer does not need to survey one location manually which is targeted by Project Owner but an engineer can apply this application directly especially related with analyzing in Radio Network Planning (RNP) and Transmition Network Planning (TNP) sector. And with this system too, we will able to get information which are needed only by looking map visualization especially related with geographic surrounding in one area. So that, we will hope, it can simplify the job of engineer especially for surveyor.

Analyzing in BTS placing was supported by artificial intelligent that is fuzzy logic. Using artificial intelligent fuzzy logic, we can classify Central Point from BTS planning which had been analyzed from Radio Network Planning. We can classify BTS placing in four categories. They are potential location, good enough, good minus, or no suggested location. So that, engineer can take one conclusion or search considerations in BTS placing that must be fit with Project Owner requirement which is based on dummy coordinate that given as primary coordinate in BTS placing.

Key Words : BTS location placing, Fuzzy Logic