

ABSTRACT

Increasing rate of population growth in Indonesia requires a system that can perform a calculation of parameters that linked with it in reliable and rapidly. The examples of the parameters is the amount and the classification of occupancy. By knowing the amount of occupancy in an area, we can estimate the numbers of the residents in the area, as well as observing the rate of growth.

The growing of signal processing technology produces many applications that makes image processing become easier, and then used in further consideration. One of the applications is Google Earth, a software from Google, that can displays image of the earth surface, taken from the satellite or aerial photo. With this ability, human can build a system that can analyze the amount of accupancy, and classify it based on certain definitions. Satellite imagery obtained from Google Earth are then processed using image processing technology, that is color detection, pattern detection, and correlation method.

With these image processing technology, can be drawn automatically the condition of a region, which is further processed to estimate the number of shelters in the area, and classifies them based on various provisions. With this application, can be obtained the number of occupancy and the based-wide classification with accuracy is about 91%.

Keywords : Google Earth, color detection, pattern detection, correlation method.