

ABSTRACT

Land is one of the resources that have a strategic role in city development. An information center for land price is very necessary to support the city development. Spatial distribution of land price can be gathered by spatial modeling. This research was aimed to estimate the price of land by creating a land price model with geostatic approach. Sample coordinates points are very influential in estimating the land price of a region. The model that used is universal kriging and the semivariogram model that used is spherical model. While, the data samples that used are taken from Batam National Land Agency from the year 2003 with 87 samples data. From the estimated calculation, exponential model gave the best result compared to the three other models, the models are spherical, Gaussian, and linear. RMSE (Root Mean Square Error) for the estimation of the sample land price is. The parameter that used in the exponential model is 0.2 for nugget effect, 15 range, and sill 0.5. Batam land price spatial distribution showed that the highest price is located in the center of the city which is around Batam Centre. Outside of the city center area the land price generally decreasing and reaching the lowest point. According to the experiment it was concluded that the smaller the grid size, the distribution level will be higher because there are more points to estimate. Result in color on the map the contour made more obvious difference.

Keyword : Land Price, Geostatic, Universal Kriging, Semivariogram