

## Abstract

Remote sensing is a method to obtain an information about an object, area or phenomenon by analyzing the data from the distant with the object, area, or phenomenon that being studied. Bathymetry is an one part of remote sensing which studied the sea depth or also known as the seabed topography. In this final project, we will made an implementation of sea depths using Support Vector Regression.

To obtain a model of prediction, first we do preprocessing to satellite imagery and depth of data using a software of Geographic Information System that called ArcGIS. From previous process, color component Red, Green, and Blue data will be generated along with the depth at each pixels that will be useful for next processing. The next process is learning using Support Vector Regression (SVR) method with kernel function gaussian radial basis function (RBF). The results that generated from this method is good enough, it is proved by value of MAPE 0,176067252 with a combination of parameter values  $C = 50$ ,  $\gamma = 0,0001$ , and the kernel parameter = 5.

**Kata kunci:** remote sensing, *bathymetry*, *support vector regression*, kernel, *mean absolute percentage error*.