

ABSTRACT

Kalimalang river is a source of raw water for production purposes were used PAM. Therefore, the flow of water must be maintained so that it can still be flowed to the population and the width of the water is an important parameter in the output of water discharge. Manual measurement can certainly be done but if the measurement for many points becomes very difficult and inefficient. Based on these problems in this Final Project a Kalimalang river basin width detection program has been made based on satellite image processing using the Binary Large Object (BLOB) method and the Decision Tree classification.

The method used in this study is BLOB with the aim to isolate objects in the binary image so that the results are output of feature extraction. To recognize objects that have been detected, the classification method used is Decision Tree is a classification method that uses representations such as tree structures where each node represents an attribute, branches represent the values of the attributes, and leaves represent the class.

This research can measure the width of the Kalimalang river with an accuracy of 91.1% and also can distinguish between trees, river water and banks, with computing time no more than two minute.

Kata Kunci: *BLOB, Decision Tree, Google Earth, Kalimalang River.*