ABSTRACT

In Indonesia there are so many islands are spreaded. Each islands has their own diferent contures. In order to make it different between an island to another island therefore it is needed an image recognition which has a purpose to recognize and identify an outside island in Indonesia. An island image recognition is included inside the biomatic which used image characteristic. Nowadays, an island recognition using long distance sensing can be used in many ways such as for security, recognition identity of an island or country, to increase the efficiency and efectivity in many activities.

In this final project, it was made an analysis and algorithm simulation which used to implement it to the image recognition by using curvelet transformation method. Curvelet transformation is used to optimize in representing the edged object especially curve line, to optimize in representing wave propagator and to optimize in reconstructing broken image. The output of this process are uses as an input in introduction pattern and clasification. In this step Artifical Neural Network – Back Propagation (JST-BP) are used.

The result of the test in analysing and simulating are to improve the performance of the system, then conducted testing of the system. Testing is done by analyzing the types of the Curvelet feature extraction and Backpropagation neural network parameters, in order to obtain maximum accuracy was 87.50% and ± 0.10 seconds processing time.

Keyword : island, curvelet transformation, back propagation, artificial neural network back propagation