ABSTRACT

The development of the industry in the current era has been developing rapidly which can make the company must have high competitiveness by maintaining in terms of quality and quantity of the products produced by the company. PT. XYZ is one of the companies in the clay tile industry. There are classifications of PT. XYZ products, namely good tile, white stone tile, cracked tile in quality control. In its classification, PT XYZ still uses the traditional method of vision. Detection of errors or defects that are traditional in nature using human vision alone can slow down the process and increase the error rate. With the rapid development of automation can overcome this by the discovery of artificial visual detectors that use measurement methods, image preprocessing, and algorithms in detecting these defects. In this study using the Support Vector Machine (SVM) method in classifying defects and feature extraction using the Local Binary Pattern (LBP) method found on the tile. Direct image taking in this study using raspberry pi and making the algorithm system using pyhton software. This research uses linear kernel on SVM algorithm. The results of this study concluded that the highest level of accuracy was 87.5% using linear kernels. While the time required for direct classification is 10.63 seconds.

Key Word: Clay Tile, Support Vector Machine, Local Binary Pattern