Abstract

Barcode is a typical data that can present a product, where information is provided about the product or item. Each barcode has a different code depending on the type of product. A system made in this study consists of applications that offer barcodes on shopping products using the Hough Transform feature extraction method and the Support Vector Machine (SVM) classification method. The application that will be built is expected to provide output of detected or not detected barcode information with good accuracy, and is able to add up the total amount of each barcode of the product being scanned.

In this study, 1 (one) dimensional barcode was used. Multiclass SVM is used with the polynomial kernel. The results in this study indicate that images with different crop sizes with polynomial kernels obtained the best results at parameter $d = 2$ with an accuracy of 64.76%. The results of studies with the same image crop size, the best results obtained are the parameter $d = 1$ with 100% accuracy.

Keywords: Barcode, Hough Transformation, Support Vector Machine (SVM).