ABSTRACT

The development of the digital image processing technology (Digital Image Processing) that is increasingly fast, which can facilitate human life, there are applications that can apply image processing itself, in various fields. If we want to return a book to the library, we usually use barcode reader technology. For that, an application is made that is similar to a barcode, this application is for reading and forms for information systems that can be used to help workers in matters that require time in managing books in the library.

In this Final Project, an application has been created that can read colors and shapes which are then stored in a database that has been created using the opency library. The working of this application is, the webcam is installed to capture images on the back of the book, the results of the detection will be entered in the book code to be matched with the database.

From the results of testing of this color reader application, it is found that the success of detecting colors by 100% and for the success of detecting the shape is 66% based on ideal light in rooms 70 lux until 150 lux and a distance of 5 cm. The ideal distance for detecting is 5cm to 10 cm, the average processing time is obtained by the system to detect colors and shapes is 1.67 seconds.