ABSTRACT

Digital image processing is the image processing by using a digital computer to generate a new image that is in accordance with the wishes of user. Object detection is one of the image processing is used to determine the presence of certain objects in a digital image. Detection process can be performed with a variety of methods which one is to detect one shape and color object.

In this final project is implemented to object detection, using a webcam that previously is given a square and a circle-shaped object of red, green, and blue. Where the object processing is started from capture processing and then processed by the system and followed by preprocessing. The results of that system processing in form of a 2D shape with a predetermined color.

The results of this final project is able to detect the system objects circle and square. System accuracy is 82% of the test data. This system has a computation time 2.1846 seconds.

Keywords: webcam, image processing, object detection, color detection