ABSTRACT

Every human has advantages and disadvantages in his life. If a person has a deficiency in a way then he will try to cover up the deficiency with a word that is not actually a lie. Lie becomes one of the most common things done in everyday life. The need for a lie detector increases with the advancement of technology that helps humans in performing tasks. The existing lie detector is difficult to use because it has a complicated constituent component so that the tool is still rare among the surrounding community. A lie detector is required with simple constituent components so that the device is easy to use and well received by the public.

In this final project has created a system to detect video camera based lies that can analyze lies through the change of pupil diameter and eyeball movement using Haar Cascade Classifier method. According to psychological theory, people who are lying will experience an enlarged pupil diameter where the eyelid does not blink when saying lies and eye movements that will look to the right. The size of the pupil's diameter and the movement of a person's eyeball is recorded using a video camera to be analyzed whether the person is lying or not. This research has an accuracy value of 82% of the tests that have been done.

Keywords: lie detector, Haar Classifier Cascade, pupil dilation, Eye tracking