

ABSTRACT

In this world, human was born with a variety of different attributes and behaviors - different. In everyday life, many people who apply the nature of honesty in life, but not a few also people who do lies to cover up the truth. The lie has become one of the common behaviors that are often done in everyday life. The lie itself aims to build an understanding it others, but the understanding that it creates is wrong. Whatever the purpose of lying often causes harm, especially if it is done for something important and concerns the interests of many people such as in business, crime and other important matters.

Indicators that can be used to observe people lying or not can be seen through the pupils and pupils eye movements. According to the psychology of pupils will experience a change in diameter to be greater 4% to 7% when the person is in a state of distress, including when lying. People who lie will also move their eyes or look towards certain. The enlargement of the pupil diameter and eye movement patterns will be recorded with the camera video which later results from the recording will be processed in the software with image processing method and Circular Hough Transform method which allows detecting from both indications. Then the data will be analyzed to determine whether the person it is lying or not.

From the results of testing and system analysis of 20 respondents in each of the five questions obtained the accuracy of the average system to detect the movement of the eye is 55,18% precisely, while for the accuracy of the system detects the pupil diameter enlargement of 52,83%. So from the total system test in detecting the respondent's answer correctly obtained an average accuracy of the test 73%.

Keywords : lie detector, camera video, pupils, image processing, Circular Hough Transform.