

ABSTRACT

In everyday life, lying is commonplace and often occurs among the public. Communication is one of the main ways to multiply relationships and build relationships within the family, the community and the world of work. In the world of psychology, lies can be detected by using body parts such as; face, eyes, heartbeat and others.

In this Final Project the compiler focus to work on the human eye. The lie detector uses the object of pupil diameter change and the number of blinking eyes with the Hough Transform method and the Decision Tree algorithm as the decision maker. From the results of research conducted on the lie detector system obtained an accuracy of 94%. Accuracy is obtained from observations on the change in pupillary diameter using hough circular transform method and increased the number of blinking eye with eye aspect ratio method. In research conducted, a person who lies pupil eyes will experience enlargement of the pupil diameter of the initial respondent and increased the number of blinks of the eye to more than 8 times from the initial blink of respondents before the question.

Keywords: *Lie Detector, Hough Transform, Eye Pupil, Eye Aspect Ratio, Eye Blink, Decision Tree*