

ABSTRACT

The iris of the eye is the colored part of the eye that helps the pupil to see clearly and adjust the entry of the lighting. Iris is a biometric indicator. For that iris can be used as an identification to know someone who has the iris pattern. Iris has a different pattern on each person so it is possible that a person can be known from the iris pattern

In this final project the author discusses the technique to identify the owner of the iris image that has taken the image of the iris. There are several methods that can be used to detect iris image. Using Independent Component Analysis method with FastICA algorithm and classification using K-Nearest Neighbor which begins with preprocessing process consisting of grayscale operation, cropping, resize, radius so that image can be taken only part of iris.

The result of this final project got the accuracy value of iris identification is 85,1429% with computation time 2,3954 second by using mean statistic, standard deviation and skewness. It is desirable that the ability of this system can help the human need to identify a person or even to be a good security system.

Keywords: Identification, K-Nearest Neighbor, Independent Component Analysis, MATLAB, Iris Eye.