

ABSTRACT

Protecting sensitive information is the most important thing in this digital world because of vulnerable access by malicious users. At present, theft of digital information is increasing in society. Therefore biometric-based identity recognition plays an important role in securing most of the sensitive data. Biometric-based identification is more accurate than using a password that is very predictable. Several types of identification use biometrics such as Palmprint, fingerprints and iris.

This final project makes a system that can recognize Palmprint for open-lock door. This system uses the Principal Component Analysis and Discrete Wavelet Transform methods. With this implementation aims to extract the Palmprint Features. Euclidean Distance is used for matching input features with the features in the database. The results of the simulation test of the open – lock door system developed in this study succeeded in recognizing palmprint with an accuracy of 90% based on testing parameters of a distance of 10 cm, light 900-1700 lux, horizontal and vertical rotation of 0°. This open – lock door system can also recognize palmprint with an average speed of 0.05 seconds.

Keywords : Biometric; Principal Component Analysis; Discrete Wavelet Transform; Euclidean Distance.