

Abstract

Research on biometrics is continues to grow until today. Various studies are performed to obtain performance of personal identification based on physical and behavioral characteristics. Palm vein recognition become interesting field lately. Palm vein feature covered underneath the skin, so that it hard to forge and more resist to external factors than fingerprint and face features.

In this Final Project, recognition process consist of preprocessing, training and testing. The aim of preprocessing is to get a certain parts of palm vein image, also known as Region-of-Interest. On training process, feature extraction is done using Two-Dimensional Linear Discriminant Analysis. This method can perform dimension reduction, by maximizing the between class scatter and minimizing within class scatter. Testing process consist of four scenarios, quality of image acuisition, size of ROI, size of 2DLDA feature and threshold.

Two-Dimensional Linear Discriminant Analysis obtained a good performance. The configuration of parameters need to be determined in order to increase system performance. The best performance obtained with EER 8% and Accuracy 94,67%..

Keywords : biometrics, palm vein, two-dimensional linear discriminant analysis.