Abstract

Biometrics is a field of computer science which is growing rapidly in late years. In one of its application, biometrics is used in identificating image in authentication process. Multimodal biometric system is chosen because of its reliability. In this research, palmprint and palm geometry features is used. Those two features has the advantage in resource because only one image is needed to extract both of them.

The system is tested against 600 palm images from 100 users which taken from Casia palmprint dataset. The system in this research extracts palm geometry features as a float vector and palmprint image region which later is processed by applying Gabor Filter and saved as feature vector. Manhattan Distance is used in matching process. The result is presented as False Acceptance Rate (FAR) dan False Rejecion Rate (FRR). The system yield 3.27% error rate on 4:2 training data to testing data ratio.

Keywords : *Multimodal Biometrics*, *Palmprint*, *Palm Geometry*, *Gabor Filter*