Abstract

Biometric as an alternative recognition system have been studied with variant characteristics, one of the chacacteristics is palm vein. Palm vein as an characteristics of biometric recognition system has its own reliability when compared to other biometric characteristics. As you know, the location od palm vein is under the skins that makes it difficult to broken and difficult to duplicate. Besides, the pattern of palm veins are hard to see with the naked eye or a regular camera.

Research of biometrics recognition system is implemented by the method of Local Binary Pattern Rotation invariant (LBPROT) as a method of feature extraction on palm vein image. LBPROT is the development of methods Local Binary Pattern that can handle the rotated-image of the palm veins. This method can reduce the risk of reduction in accuracy due to the rotation of the image. In addition, Cosine Distance applied on matching process also. From the test results obtained optimal configuration of the number of regions are 16, a radius15, the number of neighborhood 8, and the image size of 256x256, using the threshold 0:09 can obtained FAR and FRR values 0.11698 and 0.1175, with an EER 11.7%.

Keywords : Biometric, palm vein, Local Binary Pattern Rotation Invariant.