

Abstract

Various studies on palm vein biometrics has been carried out by using some specific parameters in accordance with the study but is still a problem that is in terms of performance accuracy that further studies need to be done in order to obtain better performance in terms of accuracy levels.

Selection of feature extraction method is right for palm vein biometric system greatly affect the outcome of system performance. Various studies on biometric palm vein as Iterative Closest Point (ICP), Locality Preserving Projection (LPP) and the Local Binary Pattern (LBP) successfully applied for the introduction of identity through palm vein. At this final project study discussed on Local method Derivative Pattern (LDP) as the feature extraction algorithms and methods Histogram Intersection as matching algorithm. Methods LDP been able to take on the image of the palm vein characteristics based on different levels of gray of a pixel with ketetanggaannya added in the form of a characteristic histogram descriptors direction (directional feature) and have that order and radius parameters. Histogram Intersection method used to calculate the characteristic value histogram similarity between the data model and test data, the greater the value of the histogram matching the characteristics increasingly similar.

Results from this study show the efficiency of feature extraction algorithms LDP able to get the best accuracy of 98.3% with the configuration parameter values of order 2, radius 12 and the partition 4x4 images. Further testing on the system found the value for FAR to FRR of 0.01 and 0.01 with a threshold value of 37.2580.

Term of Index: *biometric, local derivative pattern, histogram intertsection*