MULTISCALE WAVELET PYRAMID FOR PALMPRINT IMAGE AUTHENTICATION

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ABSTRACT

Hand biometrics including palmprint authentication have became extensive research in recent years. Some research discussing palm print authentication emphasize on matching of two feature vectors of it. Problem faced by the research in this field is the sampling process. Different position of hand geometry results in different palmprint image cause palmprint to be unauthenticated. This research proposes an approach to solve the problem by first making image dimension using Multiscale Wavelet Pyramid (MWP) to produce features represent palmprint image. The next stage is feature matching by using Hamming Distance Similarity. Testing in several levels combination show that integration of level 1 and level 2 yields optimum feature. The evaluation result produce that MWP has faster and better performance accuracy up to 77.93% with threshold 4700.

Kata kunci : Authentication, Palmprint, Multiscale Wavelet Pyramid, Hamming Distance