Abstract

Biometric authentication using fingerprint is one of the unique, prominent and reliable method of verification processes. The paper presents different techniques used in fingerprint authentication system. Log - Gabor filter algorithm is used to extract the features of fingerprints. Then, these features are compared for identification and recognition of a person. To evaluate the accuracy, Two test cases are used. Three distance metric is used: Spearman, Euclidean and Cosine in which Euclidean distance is performing better with Log- Gabor Filter. Using Log - Gabor filter based matching algorithm, Accuracy on 100 % training 95% and accuracy on exclusive training 40 % is achieved in case of Euclidean Distance Metric.

References

2. The Costs and Benefits of Using Complex 2-D Gabor Filters in a Filter-Based
Fingerprint Authentication System using Log-Gabor Filter


5. Combining Gabor Local Texture Pattern and Wavelet Global Features for Fingerprint Matching International Conference on Computational Intelligence and Multimedia application IEEE Computer Society, DOI 10.1109/ICCIMA.2007.277


Index Terms

Computer Science
Circuits and Systems

Keywords

Fingerprint Authentication, Gabor filter, Accuracy on 100% Training, Accuracy on Exclusive Training