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.

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**Index Terms**

Computer Science  
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**Keywords**

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