Abstract

A biometric system which uses a single trait is unable to meet the required security levels. Authentication based on multi-biometrics is an emerging trend these days. This paper deals with the biometric authentication system which integrates face and voice biometrics. The system requests the user for an audio sample and an image of his face. The fusion of face biometric with the voice provides a much higher level of certainty a user's identity. We are using the Earth Mover's Distance (EMD), an efficient algorithm for face recognition and comparison of the audio and facial features [15, 16]. The proposed system outwits the single biometric systems by performing two-level authentication and improves system performance. Experimental results were found to have better impact on the system performance.
References


Two Level Authentication using Biometrics based on Earth Mover’s Distance (EMD)


Index Terms

Computer Science

Security

Keywords

Biometric System  System Performance  Authentication  Recognition  Emd