Abstract

With an increasing emphasis on security, automated personal identification based on biometrics has been receiving extensive attention over the past decade. Iris recognition, as an emerging biometric recognition approach has become a major research topic with practical applications in recent years as it promises nearly perfect recognition rates. In this paper, we present a novel, efficient approach for iris recognition. Our goal is to develop a lifting (integer) wavelet based algorithm that enhances iris images, reduces noise to the maximum extent possible, and extracts the important features from the image. Then the similarity between two iris images is estimated using some standard distance measures and comparison of threshold. The proposed technique is computationally effective with recognition rate of 99.97 % on the standard CASIA iris database.

Reference

Iris Recognition using Lifting Wavelet Transform


Index Terms

Computer Science

Image Processing

Key words

Iris recognition

biometrics
Iris Recognition using Lifting Wavelet Transform

identification

security