Abstract

Reliable automatic recognition of persons has long been an attractive goal of many researchers. Thus the recognition of an individual based on iris pattern is gaining more popularity due to the uniqueness of the pattern among the people which are highly stable starting from about one year past the date of birth, until death. The probability for the existence of two irises that are same has been theoretically estimated to be very high, i.e., one in 1072 which counts for the unique characterization of the iris. Although many approaches for iris recognition have been proposed by many researchers in the last few years, in this paper a selective iris feature matching method for iris recognition based on optimized wavelet decomposition of normalized iris image has been proposed. Comparing the average normalised correlation of the wavelet coefficients of optimised level and its adjacent levels improved matching is obtained, thus performing uniqueness verification of a person.

References


- Dobes, M., Machala, L., Tichavsky, P., Pospisil, J., "Human eye iris recognition
- Masek, L. , "Recognition of Human Iris Patterns for Biometric Identification"; Thesis, School of Computer Science and Software Engineering, University of Western Australia, 2003.

**Index Terms**

- Computer Science
- Pattern Recognition

**Keywords**

- Threshold
- Image Morphology
- Optimal Level Decomposition
- Wavelet Coefficients
- Correlation
- Features
- Selective Iris