Abstract

In this paper, we have proposed a new technique to select a certain point in a segmented iris so-called regions of interest. A robust feature descriptor based on Gabor wavelet and Discrete Fourier Transform (DFT) is introduced. We have extracted the robust features around the inside selected iris points. The selected points are connected with each other to form a graph. This graph is afforded to handle even globally warped irises, by enhancing the robustness of node descriptors to a global warping, and introducing warping-compensated edges in graph matching cost function. The performance of the proposed approach is evaluated through the recognition simulation based on arbitrary irises. Recognition results are given for galleries of irises from CASIA and UBIRIS database. We also compare our results with previous work and we have found that, the proposed approach is an effective technique for iris matching process especially in case of noise iris.

References

- Rankin D. M., Scotney B. W., Morrow P. J., and Pierscionek B. K., Iris recognition failure over time: The effects of texture, Pattern Recognition, 45, 1, (2012), 145-150.

**Index Terms**

Computer Science Pattern Recognition

**Keywords**

Iris Recognition Iris Segmentation Features Extraction Wavelets Robust Jet