
Abstract

In this paper we create and evaluate iris recognition system using Hamming distance. Iris recognition is a research topic which study theories behind the application of human identity recognition system based on iris pattern. Developed iris recognition system using Hough Transform algorithm for segmentation process, Rubber Sheet for normalization process, 1D Log-Gabor for feature extraction process, and Hamming distance for matching process. The most optimal threshold is found from testing result, which is $\text{threshold}=0.2$, with $\text{accuracy}=0.653333$. Testing results shows that iris recognition system is highly dependent with dataset which is used. Hence, iris recognition system should be accompanied with acquisition module which can take high-quality iris image.

Keywords: iris recognition, biometric, pattern recognition, image processing