

Abstract

Biometric is method that usually used to identify someone using a part of body characteristic. The main advantage of biometric in identifying someone is guaranteed security, since the data is difficult enough to imitate and to duplicate. One part of body which is unique and consistent with age is iris. In this paper, there are some steps for classifying the iris. Begin with preprocessing, feature extraction, and classification. Data that used in this paper are iris's grayscale image from CASIA. The method for feature extraction in this paper is Gabor Filter 2D. Gabor Filter 2D is used to sharpen the texture of the iris image. As for the classification, the method used is the support vector machine (SVM). SVM is a method that can be used for classification by finding the best hyperplane. Accuracy achieved in this experiment reaches 90% using the RBF kernel and the number of frequencies in Gabor Filter 2D is 5.

Keywords : Gabor Filter 2D, SVM, one-versus-one, one-versus-all.