

Abstract

Iris is one of the most popular biometrics used today. This is because iris patterns are very rich and varied. The iris pattern of humans is not the same as identical twins [1] so the resulting error rate is quite small. The iris recognition system itself is a biometric collection method that uses mathematical patterns from the image of one's iris. Many methods have been developed for biometric recognition systems, such as the Flom And Sapphire Concept Patent, Wilde's Approach, Daugman's Approach [11], and many others. One method used for this final project is the Daugman Method. This method is applied to segmentation and normalization. Hough Transform is used to overcome iris that covered in shadows from eyelashes, and reflections. Hough transform is used in segmentation to look for circular patterns and boundaries between iris and pupils. In addition, the author also tries the color processing method for images using Red Green Blue (RGB) and Gabor Filter to improve the quality of image data. Besides the SVM (Support Vector Machine) method on classification. At the SVM testing stage, the kernel models used are Linear, RBF and, Polynomial. From the test results, the RBF Kernel Model obtained the highest certification at 87.5%, the Linear Kernel Model at 84% and the Polynomial at 74%

Keywords: Daugman Method, Hough Transform, Gabor Filter, SVM, Linear, RBF, Polynomial.