

Abstract

Nowdays recognition using biometric system which is based on human natural characteristics that are physiological characteristic and behavioral characteristic has been many developed. Biometric system which is based on human iris has excess than the other biometric system, because iris is human organ which has high discriminative power and can be made as security media, beside that iris pattern has the high stability and consistence through years without experiencing of change. Therefore, in this time biometric system based on human iris is being start reckoned and developed.

This final project develop the biometric system based on human iris with use Direct Linear Discriminant Analysis (DLDA) method in feature extraction stage and Learning Vector Quantization neural network (JST LVQ) in image recognition stage. By using two method, system performance that are yielded based on testing which has been done can reach 48% - 100% in testing data. Best accuracy can be reached by using appropriate wavelet and JST LVQ parameter for example election of wavelet decomposition level which not too high (decomposition level 1) and election of learning rate which not too bid and not too small (0.0075), while low accuracy are yielded if using parameter which less precisely selected for example election of wavelet decomposition level which too high (decomposition level 3) and election of learning rate which too small (0.0001).

Key words : *biometric system, human iris, wavelet transformation, DLDA, JST LVQ.*