

Abstract

The face is one part of the human body that can be used to distinguish one person to another person. A person can easily recall the patterns of facial expressions of others in different circumstances and in less light through the learning process. Along with the development of information technology is growing, emerging phenomenon needs a model for face recognition as a source information.

One of technique which efficient for face recognition is Fisherface. First face image feature extraction process is carried out using Fisherface to obtain the principle components of the facial image at the same time can reduce the dimension. Furthermore, the output of Fisherface be input into the neural network to create a system of recognition (classification) using the Learning Vector Quantization (LVQ).

Based on test result, the system can produce the best accuracy of 96.67% with performance of FRR 3,33% and FAR 0,24% with combination of 14 features parameter settings FLD, 0.0001 minimum learning rate, 0.0001 learning rate, and initial weights are initialized from the mean average input patterns of each class.

Keywords : *face recognition, feature extraction, classification, fisherface, Learning Vector Quantization.*