

Abstract

Face recognition is challenging task because of variation in lighting condition, variability in scale, location, orientation (point of view), and pose (frontal, profile).

Eigenfaces method is generally used as a method for face recognition process. Otherwise, this method which is used directly in a grayscale image could have a problem in recognizing a face with different variation in lighting condition. Eigenedginess method for face recognition process is used to reduced error detection which is caused by the different variation in illumination by transform a grayscale image to an edginess image before the image is processed in eigen analysis.

In this book, Eigenedginess method and eigenfaces method is implemented on face recognition process. The testing and analysis result show how far the difference of accuration between both of methods.

Keywords: eigenfaces, face recognition, grayscale, eigenedginess, edginess, eigen analysis.