Abstract. Face applicable to identify the somebody identity for security. Intention of this research is study the face recognition by using eigenface method and make the application program which can be used to recognize the face in so many expression, position as well as face experienced of the trouble effect existence of noise. In Eigenface method, decoding is done by calculating eigenvector then represented in a large matrix. Eigenvector is also declared as facial characteristics, therefore why this method is called with Eigenface.
Face input which at this application is in the form of face image of the size and same resolution. Output Application is in the form of class closest from face which wish recognized. This application made with the program delphi 7 which enough rely on and easy to in calculation mathematic. Result of examination of face recognition by using approach eigenface to used sampel, program can recognize the face truly with the efficacy 88.2%.

Keywords: face, recognition, Principal Component Analysis and eigenface.