

ABSTRACT

The face is an important role in the human body part. The face can also be a personal approval system. Face recognition is one of the biometric sciences, namely the science that uses a person's physical characteristics to determine his identity. Some information can be obtained through a person's face image, for example knowing gender and age groups.

In this final assignment, this face recognition process supports conveying about age groups and gender. In this study, the distribution of age and gender groups was divided into four classes, namely adult men, male adolescents, adult women, and adolescent women. In this study, Chicago Face Database was used. The process is carried out through several processes, preprocessing process RGB conversion is made into grayscale images, then for the face detection in the process using the Viola-Jones method. for feature extraction using the Gray Level Counseling Matrix (GLCM) and connections with Artificial Neural Networks (ANN).

This system produces an accuracy of 100% for adult male and female classes with 37 training data and 19 test data and 12.12 seconds of computing time.

Keywords: Viola-Jones, artificial neural networks, backpropagation, face recognition, biometrics, GLCM