ABSTRACT

The use of technology is now very rapidly growing. There are many technologies that can help solve human problems. In this final project will be designed a classification system for gender and age recognition based on facial image. This is useful for many purposes including security.

In this final project, the authors designed a system that uses RGB color image processing transformed into greyscale image by Viola-Jones method and Canny Edge Detection. The method method is to detect faces and shapes on the face to be able to see the value of extraction then can be classified using the classification method k-Nearest Neighbor as much as 132 images in 10 classes, according to the Ministry of Health RI (2009) for toddlers (0-5 years), children (6-11 years), teenagers (12-25 years) , elderly (26-45 years), elderly (46-65 years), where each age group is divided between men and women.

Based on the results of system testing that has been done has obtained the best results with parameters including: threshold = 6, resize = 240, correlation distance and K = value can produce a level of accuracy of.

Keywords*: Viola-Jones, Gender, Classification, Face Recognition, Face Detection, Age, Identification, Canny Edge Detection, k-Nearest Neighbour, Biometric. Distance.*