

ABSTRACT

Emotion is a condition of a person's feelings towards an event or to something that happens. Emotions are divided into several types namely, anger, pleasure, shock, sadness, disgust, and others. Emotions are generally recognizable to humans, but today many technologies are being developed to recognize human emotions. One way to recognize the technological conditions of human emotions is through human facial expressions.

In this final project is to making analysis of emotion classification using Support Vector Machine (SVM). The first step to do is find the dataset used. In this case, the dataset used is the dataset of Cohn-Kanade. Then the dataset will be done preprocessing process to take the image of human face. Preprocessing is done using the Viola-Jones algorithm. After preprocessing, the next step is to perform feature extraction on the image using the Principal Component Analysis (PCA) algorithm. Later will produce output value of PC / Principal Component. After completion of the search for its feature extraction value, the last step is to classify using the Support Vector Machine using the PC input from feature extraction.

Test results reach 66.66% in the composition of training data as many as 60 data that has been labeled as many as six classes and 30 test data using linear kernel.

Keyword : Face Detection, Feature Extraction, Expression Classification, Support Vector Machine, Emotion Recognition.