ABSTRACT

Lips print can be used as a supporting method for personal identification in forensik and non forensik case. Lip prints is the same as finger print that has unique and does not change during life. In this final task, the identification of lips print pattern using Principal Component Analysis (PCA) dan Radial Basis Function (RBF).

Principal Component Analysis method to extract the feature after pre-processing on the lips image and then classify it using Radial Basis Function. PCA is generally a method of retrieving important features of high-dimensional data by reducing it to a lower dimension without losing important features in its original image. While RBF is one form of multilayer artificial neural network that has the ability to recognize patterns based on patterns that have been inputted previously or stored in memory recognition.

The end result of this final task is a program to identify individual based on lip pattern. Based on this research, the highest accuracy of testing based on the average of the correct pattern type is 43.06% with the number of eigenlips 1 and the number of neurons 18, while the lowest accuracy is obtained when the number of eigenlips 10 with the number of neurons 18 is 29.17%, and 36.11%when the number of eigenlips 1 with the number of neurons 5.

***Keywords**: Lip Scrub, PCA, RBF, Forensic Odontology*