ABSTRACT

Every human being has the body parts that are unique and different from other human beings. Given this distinction facilitates the identification and recognition of each individual, including Rugae palatina. Rugae palatina on each person is different, discount variations of composition, form, layout is different and unique, so that this can be done to identify and recognize the identity of the person. Rugae palatina related research had previously been done by Intan Nursamsi, student of Padjadjaran University, where the research was limited to rugae pattern Palatina. From the patterns that have been studied, it can be used to identify individuals. The process of identification of individuals can be done by using Biometrics. Biometric technique is a technique for identifying a person based on the characteristics of the structure of the body, which in this thesis is Rugae palatina.

The final task of identifying individuals in the form of matlab implementation of Rugae palatina owned by everyone. Expected a person's identity can be instantly recognized by detecting the results of Rugae palatina image that has previously been photographed by the camera on the software. On Biometric techniques, it takes a lot of samples so that the number of samples required more than 40 units. Samples were obtained from a printout on Rugae palatina. Then from the molds would be photographed with the camera. This is done to get the best image before it is processed by using software.

Repairing the image will be processed by the preprocessing such as cropping and uniformity of size of the image. To analyze the characteristics will be used method of Singular value decomposition. Pattern recognition of Rugae palatina can seems form, characteristics and composition of Rugae palatina using Support vector machine (SVM). The accuracy of the test results obtained by the SVM method is 79,17%.

From the testing system has been made, the method of Singular Value Decomposition and Support Vector Machine may be implemented on matlab to identify individuals based rugae Palatina.

***Keywords**: Biometrics, Rugae palatina, SVD, SVM*