ABSTRACT

Indonesia is one of the countries in the world that are most vulnerable to natural disasters. It can also be seen from the geographical layout of Indonesia which resulted in Indonesia is very prone to natural disasters will be. In addition to natural disasters, the rate of accidents in Indonesia tends to be high in the ASEAN. The high rates of natural disaster and accident are costing casualties. Therefore, Indonesia must have sophisticated systems that can be used to identify the victims.

In general the methods used by the forensic team is fingerprint identification. However the identification through fingerprints that are hard to use if condition on sacrifice fingerprint changes, such as blisters or burns even damaged and is not shaped. One alternative that can be used to address such matters is the identification of the Palatine Rugae. It is evident that the pattern of the Palatine Rugae every individual is different and has the characteristic of each. Palatine Rugae contained in the oral cavity thus creating protected Palatine Rugae of trauma.

In this final task, it has been developed a system that can identified a person based on their rugae palatina pattern with a digital image processing. Through the stages being performed include data recording, restoration process image with image registration, pre-processing, Deformable Template as feature extraction and the classification is Support Vector Machine (SVM). Expected through an application developed methods obtained at least 73,56% accuracy.

***Keywords** : Rugae Palatina, Image Registration, Deformable Template, Support Vector Machine (SVM)*