

## **ABSTRACT**

*Forensic Odontology can help ease in identifying the victims using rugae palatine. To Identifying individual using rugae palatine is developing, but the way to identification is still modest using by molds of the maxilla and simple measurement tool. To cope the problem identification in forensic odontology is using rugae palatine. The genetics and unique of rugae palatine is one way to identification of individual. In addition rugae palatine is consistent, meaning that rugae palatine is stable throughtout a person's life, because this condition is easy to help the process of identification and classification of rugae palatine. In this final assignment will be discussed about the technique of identification and classification of rugae palatine using image processing in MatLab and Android.*

*The Techniques that has been used to feature extraction is Discrete Cosine Transform (DCT),and for classification using Support Vector machine (SVM). The discrete Cosine Transform is a technique that is used to transform the signals into component frequencies basis and the SVM method is a classification that works on the basis of Structural Risk Minimization (SRM) to finding the best hyperplane that separates to existing classes.*

*The results from process is a Matlab-based application and Android which can be used to identify patterns of rugae palatine. The output application of android is a pattern that's been identified according to the classification Martin dos Santos and the number of patterns from one image the rugae. The acuracy of this system is 94,27 % with computation time is 4,3369 second.*

**Keywords:** *Discrete Cosine Transform, palatine rugae, Support Vector Machine*