ABSTRACT

As the development of dentistry, especially in forensic odontology, it is found that the pattern of the palatine rugae or called the palate of every individual is different, even between twins. For some cases like mutilation and fire accidents make identification through fingerprints have become invalid due to its easily defective while the use of DNA requires a high cost. Palatine rugae is known to be used for human identification because of its uniqueness and its position protected by oral cavity.

In this research has been implemented an android system for identifying human palatine rugae pattern using Binary Large Object (BLOB) detection, Local Binary Pattern (LBP) for extracting the features and using Support Vector Machine (SVM) for classifying. In general, the process of the system consists of image acquisition using android device, preprocessing, feature extraction, characteristics identification, and palatine rugae pattern classification.

The result from this research is an application of palatine rugae pattern identification on android device, the accuracy rate of the system is 57.564% with 64.152 second for computing time.

***Keywords**: Rugae, BLOB, SVM, Android, Forensics*