

ABSTRACT

One of the solution for biometric identification is by using rugae palatine. Rugae palatine has unique characteristic and it is different from one another, so it can be used as an alternative to identify an individual [1]. In addition rugae palatine also has fix characteristic, which means that the rugae palatine is stable throughout one's life.

The techniques that have been used is Binary Large Object (BLOB) Detection and Support Vector Machine (SVM). BLOB detection itself is a method that used to detect a group of pixels that has same logic value and unify them into one region [18]. While, SVM itself is a method that work to find best hyper plane that separate one class to another class, so with this the identification process can be done [2].

As the result of this final project is a Matlab-based application with best average accuracy rate 100% for biometric identification. While highest accurady rate for the shape or rugae palatine is 85.19%.

So it can be concluded that for biometric identification this system can differenciate between one individual with the other individual maximally. So that for the rugae palatine's pattern identification, this system can differenciate the patterns that form the rugae palatine even if it is didn't reach its best performace yet.

Key Words: *binary large object detection, rugae palatina, Support Vector Machine*