ABSTRACT

Forensics is a field of science used to aid the process of identifying individuals. Many ways to identify individuals, but often due to the physical condition of individuals who are not intact, then do the identification, one of the science that studies forensics is the science of dentistry. Forensic dentistry can simply identify a person's identity based on odontology examination, rugae palatina, lip marks and enamel patterns (enamel) of teeth in individuals. The identification of these tooth enamel patterns will still be developed, as this study is a new study.

Teeth are the strongest part of living things. Teeth are formed from hard minerals consisting mostly of calcium and phosphate, teeth composed of enamel, dentine and pulp. Email teeth have patterns that are characteristic almost identical to the existing patterns on human fingerprints. In the study of tooth enamel identification has not yet got a good pattern because the process is fairly complicated.

In this final project, we discussed the technique to classify tooth enamel pattern based on Gray Level Co-occurance Matrix (GLCM) method and Learning Vector Quantization (LVQ) classification which will be implemented in Matlab software and using digital image processing. Stages include: preprocessing, feature extraction and classification. This study is expected to help forensic medicine to identify individual individuals based on tooth enamel patterns. The teeth used in this final task are incisors (incisors)

The results obtained from a series of processes above is a Matlab based application that can be used to identify and classify tooth enamel with an accuracy of at least 61%

Keywords: *Enamel Rods, Gray Level Co-occurance Matrix (GLCM), Learning Vector Quantization (LVQ)*