

ABSTRACT

A forensic examination is needed to identify the age of a person where the individual's chronological age is unknown because the original identity is not available. Age identification can be performed both on an alive and a dead individual. The body part that is commonly used to identify a person's age is the tooth. In general, the development of a person's teeth will be proportional to the increase in age that can be seen from the pulp of his teeth. The dental pulp will further narrow as the human age, and vice versa. In this study, the teeth used to identify a person's age were the single-rooted pulp teeth, the canine pulp, using a panoramic radiograph technique.

In this final project, the first step that writer do is image acquisition, the next is pre-processing, by resize the image, convert rgb image to grayscale and do histeq. For the feature extraction process, the writer used the Gray Level Co-Occurrence Matrix method, where the statistic calculation used the histogram distribution by measuring contrast, granularity, and roughness level of a region of the neighboring relationship between pixels in an image. And for the classification method, the writer used the Learning Vector Quantization method, which aims to obtain the distribution of the closest vector class in order to minimize errors in the process of classification.

This study resulted in a system accuracy of 65.96% of 47 test data consisting of 7 age classes, where class I = 14-16 years, class II = 16-19 years, class III = 19-20 years, grade IV = 20-24 year, class V = 24-26 years, class VI = 26-30 years, and class VII = 30-60 years.

From the research that has been done, it can be concluded that the system that has been created can be used to identify the age of a person. This research is expected to help the identification of the age of a person to take a shorter time and to be easy.

Keywords : *Identification, Panoramic Radiograph, Pulp, Gray Level Co-Occurrence Matrix*