

ABSTRACT

Forensic is used for the process of identifying corpses that are difficult to recognize. The identification aims to fulfill the right of the body. One of the objects that used for identification is teeth. In the process of identification, there is a field of science that carries out identification through teeth, it called forensic odontology. Teeth are the most powerful part of human body and it can withstand in extreme temperature changes. In the period of growth, human's teeth changes and degenerative at a certain age. Therefore, teeth can be a media in the process of age identification. The process of age identification for teeth can be done by utilizing changes in the pulp area.

In this final project, an image processing system is designed that system can detect human's age based on radiographic panoramic images on molar teeth. This identification uses the Binary Large Object method and the Decision Tree classification. This age identification system uses parameters of the pulp area and the ratio between the pulp area and the overall tooth area.

After testing the system that has been designed in this final project, it can be concluded that the system can detect human age based on the image of the first molar with an accuracy level of more than 80%.

Keyword: Panoramic Radiograph, Image Processing, Binary Large Object, Decision Tree.