

ABSTRACT

The number of natural disasters, crimes, cheating in cases of age forgery and misjudgment of age through physical form sometimes make forensic experts called to know their true age identity, but it is not easy for forensic experts to know someone's age. One way to identify a person's age can be done through one part of the tooth, the pulp cavity. The development of the dental pulp cavity will be narrowed with increasing human age.

In this final project, a system will be designed to be able to identify the age of humans through teeth that are focused on the first premolar so that it becomes shorter and easier. To support the identification of age through teeth, researchers conducted panoramic radiographic image processing using Statistical Analysis of Structural Information and adaboost classification methods.

The system uses 104 samples for training stored in the database and 130 test images that are not stored in the database that are used as rainy images. From the results of the tests conducted, the system was able to detect the first premolar with the highest accuracy of 84.607 % with computational time 3,678 seconds. This result is obtained using the skeptical and learning rate base parameter 0.3 in the adaboost classification

Keywords: Panoramic Radiograph, Dental Pulp, First premolar, Statistical Analysis of Structural Information, Adaboost, SASI