ABSTRACT

In the world of forensic medicine, identifying the victim is useful to obtain data on victims. Retinal and fingerprint is the body part most common and easy to identify. But what if the case is the victim's body would be very unlikely to be identified or destroyed during a disaster (accident)? Teeth are the only way to identify the least, its age. Because as it is known, the teeth are part of the body hard and resistant to the conditions indicated destroy. Teeth also the most distinctive part of the human body, so that every human being is different arrangement of teeth.

The identification process must be precise. Therefore in this final project developed an application to identify the bodies through dental age using the image processing results of Dental Panoramic Radiograph. In the science of odontology, the method used to determine the age range of the tooth is Schour and Massler method. Classification characteristic used is Support Vector Machine. The final project is also using Principal Component Analysis as feature extraction.

This research is done by processing dental panoramic rayen image that has been done first scanning and then done the basic preprocessing to find the area to be studied. It will then be extracted by the PCA itself and produce properties that are then classified using SVM. This system is able to identify the dental panorama results into a precise age estimate with an accuracy of 76.1194% that is able to classify age by using a doramic x-ray image.

Key word: Schour dan Masler, Dental Panoramic Radiograph, scanning, Principal Component Analysis, Support Vector Machine.