ABSTRACT

Indonesia is a country that has a high potential of occurring natural disaster. With a high potential of occurring natural disaster, it also make a high possibility of losing many lives in Indonesia. Nowadays, forensics often going trough difficulty in identifying the victim, that is caused of the body of the victim ussualy is thorn because of the disaster. Therefore, the science to identify the body of the victim of the disaster is needed. One of many thing that the forensics need to identify is age.

This final project, is aim to ease doctors to identify the victim of nature disaster in odontology forensic mainly for the victim body that cannot be identify anymore, cause it was thorn or damage. Research have been done to detect human age by radiograph panoramic image.

Telecommunication technology can be used to detection age with the implementation of digital image processing from mandibula teeth of the first molar. Image processing process is started with panoramic radiograph image processing as the input. Then, followed with preprocessing process, feature extraction using Watershed method and Support Vector Machine classification. The purpose fo this final project is to detection of human age using panoramic radiograph image processing.Determination of percentage designed using Matlab based software, using Watershed method and Support Vector Machine Classification.From the results, the system is able to detection of human age based on mandibula first molar image with maximum accuracy is 64,0777%. These results were obtained using the combination parameters of three first-order characteristics namely standard deviation, skewness, kurtosis and a combination of standard deviation, kurtosis, entropy with the gaussian kernel and multiclass OAO in the SVM classification.