ABSTRACT

Indonesia is a country that has various types of food that can cause various health problems in the teeth. One alternative to know what diseases that exist in human teeth is to use radiolucent. Radiolucent in medical terms is a black image in the film, beyond the bone image. Radiolucent is a medium to detect the disease by using black images on film or commonly referred to as x-ray photos. So by using radiolucent we can know what diseases are on our teeth by using x-ray photos.

The system description in this final project is the input data is periapical radiograph, then done the first process by acquiring data by doing scanning, after getting the digital image from the radiograph periapikalnya then do image identification by using Gray Level Cooccurrence Matrix extraction method and method of classification Decision tree, after doing the process then get the results whether the teeth are affected by periapical cyst disease or not.

In this final project, after experimenting to identify the periapical cyst disease on human teeth by resizing with 256x256 size then using Gray Level Cooccurrence Matrix extraction method using quantization 8, 3 pixel radius and 0o angle after that classification with classification method of Decision tree then implemented in matlab can detect periapical cyst disease in human teeth with 85% accuracy.

Keywords*: Radiolucent,GLCM,Decision Tree*