ABSTRACT

X-ray device is one tool for support diagnosis of pulpitis. X-rays can penetrate the hard layer of human organs, so that x-rays can be visually presented objects that can not be seen by eyes directly. However, the results of x-ray images have a very low level of contrast.

This final assignment is to answer these issues by developing an image adaptive enhancement scheme with adaptive gamma correction method. By performing image enhancement using adaptive gamma correction non-linear, the result output of the system in the form of image output that has a better contrast than the input image in order to present the information contained in the images with the better information presentation so that the output detection system can provide more accurate information.

Results of testing the image enhancement system is performance parameter values with an accuracy of 100% K-Nearest Neighbor classification has acquired. Hope this research can be further developed and can be used as consideration dentists diagnosis to take treatment measures.

Keyword : *Image Enhancement, Adaptive Gamma Correction, Periapical Radiograph, Adaptive Image Enhancement*