ABSTRACT

Breast cancer is one of the most cancer cases in Indonesia, where the treatment requires digital data x-rays. The digital data will be stored in hospital computer memory for a long time as a patient examination archive. With large data sizes and lot of numbers, it requires computers in the hospital to be equipped with a large memory, which will be infinite if the number of new patients increase. Based on that situation, image compression is required for more efficient data storage. Two Dimensional Discrete Cosine Transform is one of the compression techniques that can compress the image well.

In this study,we performed a digital data compression of rays of breast cancer with a more efficient size without altering or reducing information, and can be examined by human vision well. This research uses Lossy Compression compression technique, Two Dimensional Discrete Cosine Transform Method. Analysis of compression system in this research use compression ratio and peak signal to noise ratio.

The results of this study showed the best compression ratio of 7.033% and PSNR 18.143 dB, while the best PSNR value of this study was 40.2938 dB with compression ratio of 34.36%.

Keywords : Compression, Medical Image, Two Dimensional Discrete Cosine Transform