

## ABSTRACT

Compressing has become important part of data communication, especially for image there are lossy and lossless technique. Fractal is one of lossy technique based on Iterated Function System (IFS) theory. For easily implementation then this theory was developed to Partitioned Iterated Function System (PIFS)

Using bitmap format for image file storage is not efficient. By Fractal goodness, it can produce complex image from simple code. On the other hand, storage size decreases than bitmap format. Because of that, fractal image compression will give a good performance on natural image. But it is not final decision to use on a graphic image or act like Ecludian.

This final project will analyze image compression performance using fractal in a simulation process. This simulation will include the encoding and decoding. For knowing performance, it was used two encoding algorithms Naïve and Quadtree, than measure it objectively and subjectively.

Fractal application on compressing image, sometimes result high enough ratio compression approximately 50 : 1, it happens to specific characteristic image, especially natural image.