

## **Abstract**

Image representation needs large memory. Yet most application needs less memory for image representation. Image compression's goal is to minimize the need of memory to represent digital image.

In this final project, the author develop a simulation of fractal image compression using spiral architecture. Spiral architecture is a technique using hexagonal architecture to represent an image. The performance is count by PSNR, compression ratio and time for compression-decompression.

Based on the the simulation result, fractal image compression using spiral architecture has compression time and compression ratio better than fractal image compression. The average compression ratio is 91,92% and 90,76%, then the average time for compression-decompression 172,83 s and 204,36s. In the other hand, fractal image compression using spiral architecture has PSNR better than fractal image compression with the average PSNR is 23,09 dB and 20,73 dB.

Keywords :Image Compression, Spiral Architecture, Fractal Image Compression