

ABSTRACT

The development of the technology world very rapidly, especially in the field of computer networks to make everyone can connect to each other via internet, thus facilitate the process of sending and accessing digital media, such as digital image, digital audio, digital video, etc. With the ease of distributing digital information, needed a security system that can protect the copyright a person in order not to be misused by parties who are not responsible one of the techniques development to overcome this problem is digital watermarking.

Digital watermarking technique is based on data embedding additional information into digital content. Ideally, the inserted watermark can not berealized by imperceptibility and robustness againt various manipulations.

In this final project, image watermarking is done in contourlet transform. where contourlet transform more effective in representation the smooth contours in different directions from one image. The final result are expected from this final project task is to analyze the performance of image watermarking method contourlet transform. performace in the analyze based attacks such embossed ratate, resize noise salt n pepper

Keywords: Watermarking, Image, Contourlet Transform, Laplacian Pyramida, Directional Filter Bank Decomposition