

Abstract

Due to the technology improvement, many multimedia files like digital image have to be secured on its meaning. One of the technique to secured is to encrypt them with encryption. Not like the text messages, digital image have special feature like big file size, high redundancy and high correlation coefficient between pixel.

In this final project, chaotic map as digital image encryption scheme applied. Not like conventional encryption algorithm that bitstream compliance is an issue, chaotic map operate on image domain or spatial so format conversion can be done without affecting format header bits. Cat map is chosen as chaotic map.

On testing and analysis chapter two cat map method are compared one with pixel value confusion step and the other without pixel value confusion method. Comparison result show that catmap with pixel value confusion method is better, because it's can hiding statistical relationship between plaintexts and ciphertexts.

Keywords: Digital Image, Chaotic Map, Catmap, Encryption, *Pixel Value confusion*.