

Abstract

In this final task do the process combination of steganography using Block Permutation Image Steganography (BPIS) and genetic algorithms. Steganography is the art and science of writing hidden messages or techniques to hide messages, so except the sender and receiver no one knows or realizes that there is a secret message. One technique that can be used in this process is the Block Permutation Image Steganography (BPIS). BPIS is an algorithm that serves to change the message or confidential information in the form of a set of binary sequences, then of the binary sequence that is encrypted using a permutation vector. In the end the result of the algorithm BPIS will be reprocessed using genetic algorithms and approaches Least Significant Bit (LSB).

The initial hypothesis of this final task is Block Permutation Image Steganography (BPIS) and genetic algorithms with spatial domain techniques can be used in the optimization process of message insertion text on a digital image bitmap format (.bmp), so it will have a level higher security and quality of digital imagery remains good.

From the research and trials that have been done show that the combination of the block permutation methods and genetic algorithms can be used in steganography. So the secret message can be inserted in the media cover image and extracted back from stego image. By applying the method of block permutation, the system has a higher security level, as well as genetic algorithm the insertion location messages can be optimized and the quality of the image will remains good.

Keyword: *Steganography, Block Permutation Image Steganography, Genetic Algorithm, spatial domain, Least Significant Bit, stego image, BMP*