Abstract

Image Steganography is the computing field of hiding information from a source into a target image in a way that it becomes almost imperceptible from one’s eyes. Despite the high capacity of hiding information, the usual Least Significant Bit (LSB) techniques could be easily discovered. In order to hide information in more significant bits, the target image should be optimized. In this paper, it is proposed an optimization solution based on the Standard Particle Swarm Optimization 2011 (PSO), which has been compared with a previous Genetic Algorithm-based approach showing promising results. Specifically, it is shown an adaptation in the solution in order to keep the essence of PSO while remaining message hosted bits unchanged.
Optimizing Image Steganography using Particle Swarm Optimization Algorithm


Index Terms

Computer Science

Algorithms

Keywords

Image Steganography, Particle Swarm Optimization, Genetic Algorithm, Image Processing, Optimization