High Capacity Data Embedding Method in Image Steganography using Genetic Algorithm

Abstract

Steganography is the art of hiding data in a cover medium such that the existence of the data remains secretive and is not easily identifiable. It is known that cryptographic techniques help augment the image steganography process to a great degree. Genetic algorithms (GA) are used in image steganography due to adaptive heuristic search based on evolutionary biology. This provides us with various challenges such as choice of an encryption algorithm for encrypting the secret message, efficiently generating the search space for the GA by using image data, modelling an efficient fitness function for the GA to evolve into its solutions, and various challenges in handling the embedding of secret data, reading writing image data, producing stego image, and a process to decode the secret information back from the stego image.
High Capacity Data Embedding Method in Image Steganography using Genetic Algorithm

References


Index Terms

Computer Science Image Processing

Keywords

Cryptography Genetic algorithm Image steganography LSB Pixel Indexed table