Abstract

One of the objectives of steganography with a digital image as carrier is to be used in secret communications. The size of data that can be embedded has a close connection with the container image size. By taking advantage of the weakness of human vision that can not properly receive visual information in complex binary pattern, the embedding can be done in the noisy area in the container image that is not in a lossy compression format. By doing so, the embedding capacity can be maximized without causing changes that can be detected by eyes on the stego image. A Block-based Complexity Data Embedding (ABCDE) is a steganography method that uses this method with the ability to embed data up to 50% the size of container image with the condition of the stego image that is still in good quality.

Keywords: the weakness of human vision, visual information, binary patterns, noisy area, lossy compression format, embedding capacity, A Block-based Complexity Data Embedding, ABCDE.