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EMBEDDING THE SECURE DATA IN IMAGES BY 2^K CORRECTION METHOD AND CANNY EDGE DETECTION

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Abstract

With more and more information being exchanged over internet, it has become necessary to protect the data from getting accessed by unwanted/ unauthorised person. To cater the need of secret data security, few data hiding techniques are there. Steganography is one of the major techniques in which the secret data can be embedded into an image file with minimum distortion which cannot be detected by human eye. In this paper we used the technique of 2^k correction method and edge detection for embedding the secrete data. The major advantage of using this technique is that we can embed more data as compared to other similar techniques and provide better imperceptibility. The logic behind this is that the human eye can detect the image distortion more easily in smooth areas as compared to the edges. Using the proposed algorithm, better PSNR value can be obtained as compared to previous methods.

Keywords: Steganography, Edge Detection, 2^k Correction, Pixel-value Differencing.