Image Encryption based on Random Scrambling and Chaotic Gauss Iterative Map

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Abstract

The Key encryption technique for any image that are being proposed here is initially applies scrambling to the location of the given or selected pixels. Afterward it applies chaotic map with using the format of 32 bit keys which currently the values of pixel image.

The one dimensional vector techniques which basically breaks the correlation of the pixels which are neighbouring and thus making the image unidentifiable and in such manner the scrambling operation is done.

After this chaotic mapping operation is applied to them which change the pixel values and this makes the image very meaningless. Hence by applying of keys so that the security of encryption level is increased further.

Infact at any images which are of large size the encryption and decryption operation are simple enough to be carried out but this provide very high level (enough level) security.
The encryption method which here is proposed for the study has been tested on different gray images and this has been showed some remarkable and good results. This is how the security level of encryption of image and decryption of image is further increased.

References


Index Terms

Computer Science
Image Processing
Keywords

Random Scrambling, Image Encryption and Chaotic Gauss Iterative Maps