Abstract

The encryption methods for enhancing the security of both text and multimedia contents has gained high significance in the current era of breach of security and misuse of the confidential
information intercepted and misused by the un-authorized parties. Here we proposed an enhancement to an existing algorithm proposed early in which the RGB attributes of a pixel were randomly scattered across the image. The scattering algorithm works on each of the Red, Green and Blue pixel values and breaks each of the pixel with respect to its constituent pixel attributes and scatters them across the spatial space of the image thus making it difficult to reform the original image unless each of the R G B attribute of the pixels are located and identified to which spatial coordinate they belong to. In our enhancement, we proposed a technique to add further confusion property in the ciphering of image by slicing the image into n number of sub images whose dimensions are kept confidential and applying the above algorithm to each of these sub images. The sub images are then shuffled so as to further add to resistance towards the deciphering attacks.

References

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Index Terms

Computer Science          Multimedia & Security
Keywords

Image Encryption
RBG
Shifting
Slicing
Shuffling
Permutation