AUTHENTICATION BY COLOR VISUAL CRYPTOGRAPHY USING VISUAL INFORMATION PIXEL SYNCHRONIZATION AND ERROR DIFFUSION

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ABSTRACT

Visual Cryptography is a technique which is used to secure the images. Our proposed system based on VIP synchronization and error diffusion technique is a color visual cryptography encryption method that produces meaningful color shares with high visual quality. The VIP synchronization retains the positions of pixels carrying visual information of original images throughout the color channels and Degradation of colors is avoided with the help of pixel synchronization. In Error diffusion the quantization error at each pixel level is filtered and fed as the input to the next pixel. In this way low frequency difference between the input and output image is minimized and give quality images. An experimental result shows that our proposed scheme shows better performance of proposed color image visual cryptography scheme measured in terms of PSNR value than existing scheme. The results showed that the noise effects such as blurring on the restoration of original image are removed.

KEYWORDS: Color Meaningful Shares, Digital Halftoning, Error Diffusion, Secret Sharing, Visual Cryptography (VC)