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Image Secret Sharing using IWT (Integer Wavelet Transform) Algorithm

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Abstract: *Because of the importance of digital images and their extensive application to digital watermarking, block chain, access control, identity authentication, distributive storage in the cloud and so on ,image secret sharing(ISS) is attracting ever-increasing attention .Share authentication is an important issue in its practical application. However, most ISS schemes with share authentication ability require a dealer to participate in the authentication. To design an ISS for a(k ,n)-threshold with separate share authentication abilities of both dealer participatory authentication and dealer non participatory authentication .the advantage of polynomial-based ISS and visual secret sharing(VSS) are skilfully fused to achieve these two authentication abilities Without sending a share by using a screening operation. In addition, the designed scheme has the characteristics of low decryption (authentication) complexity, lossless decryption and no pixel expansion .Experiments and theoretical analyses are performed to show the effectiveness of the designed scheme.*

Keywords: Image secret sharing, lossless recovery share authentication, no pixel expansion

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