

Steganography System for Enhanced Security

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Abstract: *Visual secret sharing (VSS) systems hide secret images in shares either printed on transparencies or encoded and kept digital. For further data security, we will apply security to watermarking using the NVSS technique as well as QR images and videos. Although the shares may show as meaningful images or noise-like pixels, during transmission they will cause suspicion and raise interception risk. VSS systems thus have a transmission risk issue for the secret itself as well as for the persons engaged in them. We developed a new method for secret sharing utilizing a texture and also a natural-image-based VSS scheme that shares secret images via several carrier media to safeguard the secret and the participants throughout the transmission phase in order to solve this challenge. We design the image to conceal secret messages by use of the texture generation technique. Unlike hiding messages using an existing cover image, our method hides the original texture image and embeds secret messages utilizing visual secret sharing. Natural shares could be hand-painted images in digital or physical form or photos. We also provide several approaches to conceal the secret meant to lower the share's transmission risk issue.*

Keywords: Hashing, Partitioning Algorithm, Quick Response code, Visual Secret Sharing Scheme

