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ABSTRACT:

A real-life requirement motivated this case study of secure covert communication. Steganography is a technique used to transfer hidden information in an imperceptible manner. We proposed a novel approach of substitution technique of image steganography. The proposed method is flexible on size of secret message and allows us to embed a large amount of secret messages as well as maintaining good visual quality of stego-image. Using this method, message bits are embedded into uncertain and higher LSB layers, resulting in increased imperceptible and robustness of stego-image. Results show that the proposed algorithm provides large embedding capacity without losing the imperceptibility of the stego-image. The algorithm is also robust against Chi-square attack.