

Secured Transmission and Reserving Space in Images Before Encryption to Embed Data

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Abstract : Nowadays the multimedia data are used to store some secure information. All previous methods allocate a space in image for data embedding purpose after encryption. In this paper, we propose a novel method by reserving space in image with a boundary surrounded before encryption with a traditional RDH algorithm, which makes it easy for the data hider to reversibly embed data in the encrypted images. The proposed method can achieve real time performance, that is, data extraction and image recovery are free of any error. A secure transmission process is also discussed in this paper, which improves the efficiency by ten times compared to other processes as discussed.

Keywords : secure communication, reserving room before encryption, least significant bits, image encryption, reversible data hiding

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