

DETECTING HIDDEN DATA USING FIRST AND SECOND ORDER STATISTICS

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ABSTRACT

Steganalysis is the art of detecting the presence of hidden data in files. Universal steganalysis is general class of steganalysis techniques which can be implemented with any steganographic embedding algorithm, even an unknown algorithm. In this paper, the detection method includes the variation in the feature vectors corresponding to cover and stegoimages. The features are calculated as an L₁ norm of the difference between a specific macroscopic functional. The functionals are built from marginal and joint statistics of DCT coefficients. The features are calculated directly from DCT co-efficients. So, the detection is possible for the JPEG images. Three different steganographic paradigms are tested and compared.

KEYWORDS: Steganography, Steganalysis, Cover Image, Stego image, Cover Image, Attack, Least Significant Bit (LSB), DCT

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