High Complexity Bit-Plane Security Enchancement in BPCS Steganography

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Abstract

In BPCS Steganography, data hiding will be split into blocks that have a high complexity where the blocks are categorized into informative and noise-like regions. A noise-like region is a bit-plane that has the greatest probability as a data hiding since it has a high complexity. In this region, the data inserted is vulnerable to attack. Someone can easily take a series of characters that are stored on a noise-like region previously if the system is not modified. Improving the bit-plane composition is to increase data security. Bit-plane will be combined with a specified key. The key should be changed to bit-plane form as well. The key that has already been turned into the bit-plane will be mated with the original data. Using an exclusive-or of this part is the best way to produce the cipher bit-plane. Finally, the data residing on the cover image produced have a high-security level.

References


**Index Terms**

Computer Science  
Security
Keywords

Bit-Plane, High Complexity, Segmentation