

Abdel-Nabi H., Awajan A., Obeid N., 2018, A Novel Histogram Shifting Reversible Data Hiding Scheme for Color Images. Proceeding of the 8th International Conference of Computer Science & Information Technology (CSIT 2018). July 11-12 2018. Amman – Jordan.

## **Abstract**

This paper, provides a novel, simple and efficient reversible data hiding scheme for protecting and verifying the integrity and authenticity of color images. The importance of the proposed scheme raises from the fact that little attention is paid to the security issues related to color images while they are in wide use across vulnerable networks. The proposed scheme embeds six different watermarks in the color image. The operation of the proposed scheme relies on histogram shifting reversible data hiding technique and involves two steps: (1) embedding data into each independent color channel and (2) exploring the existing correlation between each pair of color channels, especially their differences, then data is embedded in this difference. The experimental results demonstrated the effectiveness of the proposed scheme in terms of the watermarked image quality and proved that it is capable of providing high embedding capacity while keeping low computational complexity.