International J. of Engg. Research & Indu. Appls. (IJERIA).
ISSN 0974-1518, Vol.2, No.II (2009), pp 49-62

POLYNOMIAL TRANSFORMATION TO IMPROVE CAPACITY OF COVER IMAGE FOR INFORMATION HIDING IN MULTIPLE LSB'S

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Abstract

In this paper, a novel data hiding technique has been proposed, with increase capacity, an improvement over Kekre's Algorithm[1] along with implementation of Pixel Value Differencing (PVD)[2]. A comparative performance study between the Kekre's algorithm, PVD and the proposed scheme of increased capacity using Polynomial Transformation has been done. Analysis indicates that embedding capacity in the cover image obtained by the proposed technique is more than the Kekre's Algorithm and PVD. The Experimental results show that, the stego-image is visually indistinguishable from the original cover-image obtained in the proposed method. It is also simple for implementation when compared to PVD method and yet achieves a high embedding capacity and imperceptibility.

Keywords: Kekre's Algorithm, PVD, Steganography, data-hiding.