**HIDING SECRET DATA IN AN IMAGE USING CODEWORD**

**ABSTRACT**

This paper proposes a novel reversible data hiding scheme based on a Vector Quantization (VQ) codebook. The proposed scheme uses the principle component analysis (PCA) algorithm to sort the codebook and to find two similar codewords of an image block. According to the secret to be embedded and the difference between those two similar codewords, the original image block is transformed into a difference number table. Finally, this table is compressed by entropy coding and sent to the receiver. The experimental results demonstrate that the proposed scheme can achieve greater hiding capacity, about five bits per index, with an acceptable bit rate. At the receiver end, after the compressed code has been decoded, the image can be recovered to a VQ compressed image.

**BLOCK DIAGRAM:**

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