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## optimal code word generation based image compression technique using novel modified masking neighbourhood coding scheme

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**Keywords:** Image compression, 3 X 3 masking, MNCS, Optimal Codeword, dental X-ray image

### ABSTRACT

Image Compression (IC) is a technique used widely to decrease the image size during storing and processing of the image. With increasing quality and size of the images, compression has become essential in day to day life. Compression techniques are classified into two types namely, lossy and lossless compression. From application point of view the lossy compression technique is not preferred for low quality images but it returns a bit rate with higher reduction, whereas lossless compression technique retain the quality of image to higher possible extend but it does not significantly decrease the size of the image. This can be used for applications of image calculation which is mainly useful for research work. The major objective of this research work to make the image were storage needs will be minimized, lowest possible bits and higher transmission rate. This paper proposes modified Masking Neighbourhood Coding Scheme (MNCS) algorithm which describes reduction of bits without changing the quality of image and this method minimize the complexity and is extremely reliable. Initially Anisotropic diffusion filter is applied to various fields of images such as brain tumor image, dental, mammogram, miscellaneous and satellite images which can be used for reducing the image noise. Then apply 3 X 3 masking based value reduction of the image pixels. Finally, Optimal Codeword Generation using Neighbourhood Coding Scheme (NCS) algorithm makes the bit reduction

performance to further compress the image. Finally, every values of pixels based on the resultant codewords are concatenated with the control bits and produce the lossless compressed files. The proposed method achieves efficient results based on reduction and outperforms the existing method.



#### HOW TO CITE

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