



**RESEARCH ARTICLE**

# The Study of Various Approaches for Removal of Blocking Artifacts in Spatial Domain

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**Abstract**— *The Block Transform Coded lossy image and video compression schemes such as those used in the Joint Photographic Expert Group (JPEG) and Moving Picture Experts Group (MPEG) formats to keep storage and bandwidth requirements of digital image and video at practical levels have a significant importance. However, these lossy compression schemes may exhibit blocking artifacts in smooth/monotone areas of an image, caused by the coarse quantization of Discrete Cosine Transform (DCT) coefficients. In highly compressed images using block coding as in JPEG standard suffer noticeable image degradation because each block is individually quantized. Several post processing algorithms have been proposed till date. We study and analyze some popular approaches for reduction of blockiness in spatial domain.*

**Keywords**— *Block Discrete Cosine Transform (BDCT); Offset and Shift; Mean Structural Similarity Index measure (MSSIM)*

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