

JPEG Copy Paste Forgery Detection Using BAG: Optimized for Complex Images

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Abstract— Image forgery detection is one of important activities of digital forensics. Forging an image has become very easy and visually confusing with the real one. Different features of an image can be used in passive forgery detection. Most of lossy compression methods demonstrate some distinct characteristics. JPEG images have a traceable zero valued DCT coefficients in the high frequency regions due to quantization. This appears as a square grid all over the image, known as Block Artifact Grid (BAG). In this paper the BAG based copy-paste forgery detection method is improved by changing the input DCT coefficients for Local Effect computation. The proposed method has shown a better performance especially for complex images.

Keywords— Copy-paste forgery, JPEG, Block Artifact Grid, Local Effect



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