A Fast and Robust Approach to Detect Copy-Move Forgery in Digital Images

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Abstract

In the present world, digital images and videos are our main source of information and these can be easily manipulated to conceal some meaningful information by using largely available powerful and sophisticated image editing tools. So in this era of illusions, verifying the authenticity of images and locating the tampering regions without using any prior knowledge is an important area of research. Copy-move forgery is one of the mostly used forgery technique. Many block matching algorithms are suggested to deal with this type of forgery but still there are some issues which are not properly addressed and need more attention such as time complexity. With increasing image size the execution time of detection algorithm is also increases. In this paper, we propose a method based on Discrete Cosine Transform (DCT) in order to improve time complexity. The proposed technique can also detect forgery even after some post processing operations such as rotation and Gaussian noise addition.

References

Index Terms

Computer Science  Image Processing

Keywords

Copy-move forgery; Discrete Cosine Transform(DCT); Block matching; passive forgery detection; image forgery