Abstract

Identity management is crucial in cyberspace where infringement of one's privacy, copyright disputes, theft and other malicious activities are very rampant. There exists a need of ownership identification and authentication of digital images. In solving and contributing to this field, we proposed a cryptographic and watermarking encryption technique for securing and authentication of digital images for identity management. In our approach, we encrypt the data to be embedded into the image before embedding it to the image. We make sure we select a
random position in the image based on an embedding key. We make sure the message to be embedded was converted into values that falls in between 0-255. This is to avoid it being detected using forensic or steganalytic software.

References

- Quist-Aphetsi Kester, "Image Encryption based on the RGB PIXEL Transposition and Shuffling" IJCNIS, vol. 5, no. 7, pp. 43-50,2013. DOI: 10.5815/ijcnis.2013.07.05
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**Index Terms**

Computer Science  
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**Keywords**

Digital image  encryption  authentication  watermarking