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### **Abstract**

Secure online payment is one of the important issues in today's world. Online payment system as part of our daily routine life activities, gives many operation that remotely reduces human effort and make life easy in banking, online shopping, bill payments and ticket booking etc. In this proposed method present a secure online payment system which is based on two level security approaches. This proposed method presents a secure online payment system which is based on two level security approaches. In the first level Account number and OTPs are inserted in a image and the image is reshuffled and embedded into a cover image and then sent to receiver end. In encryption, information is transformed in such a way that it cannot be detected by hacker. Performance parameter result like PSNR and MSE in proposed method show good result in terms of visually. Some method shows good PSNR and other parameters but visually do not show good pixel values. Proposed Scheme shows good result in terms of visually as well as standard parameters.

### **References**

1. S.Adhikesavan and N.Sathish , “Steganography and Visual Cryptography for Online Payment System” , International Journal of Scientific Research Engineering & Technology, pp. 153-1603, March 2015.
2. Ms. Nehashrivastava and Prof. Mr. Toranverma, “A Survey on Various Techniques for Generating Image Steganography with Improved Efficiency”, International Journal Of Advanced Research In Computer Engineering & Technology, pp.-1005-1009, March 2015.
3. Souvik Roy and P. Venkateswaran, “Online Payment System using Steganography and Visual Cryptography”, IEEE Students’ Conference on Electrical, Electronics and Computer Science, 2014.
4. K. Bennet, “Linguistic Steganography: Survey, Analysis, and Robustness Concerns for Hiding information in Text,” Purdue University, Ceria Tech Report, 2013.
5. Sumit Dhariwal and Sandeep Raghuvanshi, “ Content Based Image Retrieval Using Normalization of Vector Approach to SVM”, International Conference on Computer Science, Engineering & Applications (ICCSEA 2012), May 25-27, 2012.
6. S.Premkumar and A.E.Narayanan, “New Visual Steganography Scheme for Secure Banking Application,” Proceeding of 2012 International Conference on Computing, Electronics and Electrical Technologies (ICCEET), pp. 1013 – 1016, Kumara coil, India, 2012.
7. K. Thamizhchelvy and G. Geetha, “E-Banking Security: Mitigating Online Threats Using Message Authentication Image (MAI) Algorithm,” Proceedings of 2012 International Conference on Computing Sciences (ICCS), pp. 276 – 280, 2012.
8. ShengDun Hu and KinTak U, “A Novel Video Steganography based on Non-uniform Rectangular Partition”, 14th IEEE International Conference on Computational Science and Engineering, pp. 57-61, 2011 IEEE.
9. Jaya, Siddharth Malik, Abhinav Aggarwal And Anjali Sardana, “Novel Authentication System Using Visual Cryptography”, pp. 1181-1186, 2011 IEEE
10. S. Suryadevara, R. Naaz, Shweta, S. Kapoor, “Visual cryptography improvises the security of tongue as a biometric in banking system,” Proceedings of 2011 2nd International Conference on Computer and Communication Technology (ICCCT), pp. 412 – 415, 2011.
11. Jihui Chen, XiaoyaoXie, and Fengxuan Jing, "The security of shopping online," Proceedings of 2011 International Conference on Electronic and Mechanical Engineering and Information Technology (EMEIT), vol. 9, pp. 4693-4696, 2011.
12. KalavathiAlla, Dr. R. Siva Rama Prasad, “An Evolution of Hindi Text Steganography,” Proceeding of Sixth International Conference on Information Technology, pp. 1577-1578, Las Vegas, NV, 2009.
13. ChetanaHegde, S. Manu, P. DeepaShenoy, K. R. Venugopal, L M Patnaik, “Secure Authentication using Image Processing and Visual Cryptography for Banking Applications,” Proceedings of 16th International Conference on Advanced Computing and Communications, pp. 65-72, Chennai, India, 2008.
14. Juan Chen, ChuanxiongGuo, “Online Detection and Prevention of Phishing Attacks,” Proceedings of First International Conference on Communications and Networking in China (ChinaCom '06), pp. 1 - 7, Beijing, China, 2006.
15. J. Chen, T. S. Chen, M. W. Cheng, “A New Data Hiding Scheme in Binary Image,” Proceeding of Fifth International Symposium on Multimedia Software Engineering, pp. 88-93, 2003.
16. Jack Brassil, Steven Low, Nicholas Maxemchuk, Larry O’Gorman, “Hiding Information in

Document Images,” Proceedings of the 1995 Conference on Information Sciences and Systems, Johns Hopkins University, pp. 482-489, 1995.

17. M. Naor and A. Shamir, “Visual cryptography,” Advances in Cryptography: EUROCRYPT’94, LNCS, vol. 950, pp. 1–12, 1995.

18. <http://eprints.utm.my/38968/3/AliSalehAliAl-Ajam PFPPSM 2013CHAP1.pdf>.

### **Index Terms**

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### **Keywords**

Online banking, PSNR, MSE, one time passwords (OTP)