

# A NOVEL APPROACH OF IMAGE TRANSMISSION USING SPRT

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## ABSTRACT

Recently, Reversible Data Hiding (RDH) on encrypted images attracts more attention. In previous methodologies, data is embedded by vacating room reversibly from the encrypted images. This may lead to some errors on image restoration and/or data extraction. In this paper, a traditional RDH algorithm is used to reverse room before encryption. Thus, the data hider finds it easy to embed data in the encrypted image reversibly. Using the proposed method real reversibility can be achieved, that is image recovery and data extraction are free of any error.

## INTRODUCTION

Digital image processing is the use of computer algorithms to perform image processing on digital image. As a subcategory or field of digital signal processing digital image processing has many advantages over analog image processing. It allows a much wider range of algorithms to be applied to the input data and can avoid problems such as the build-up of noise and signal distortion during processing. Since images are defined over two dimensions digital image processing may be modeled in the form of multidimensional systems.

## EXISTING SYSTEM

In the existing system the image is being transferred by changing only its color characteristics which may lead to less security during transmission. There is possibility of third party interference while transmission as the image and decryption code may travel in the same path. If the image has been edited it will be difficult to find the original image.

## PROPOSED SYSTEM

### Rumour Walker:

Check for whether the image and private key goes in the same path. If it is in the same path it will automatically divert the key in the alternate path.

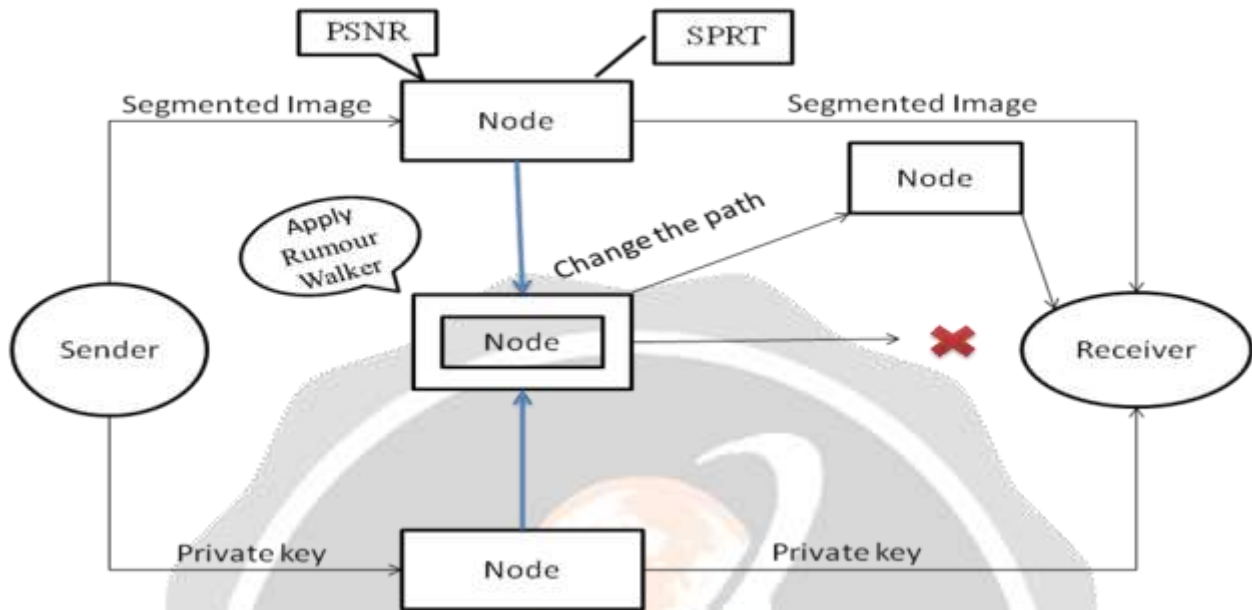
**PSNR:** [Peak Signal Noise Ratio]

It will check the size of the image and if it not matches with original image will indicate to SPRT.

**SPRT:** [Sequential Probability Ratio Test]

It will check the size of each pixel if the size differs it will adjust the size of the pixel in the parent node and will retransmit the image.

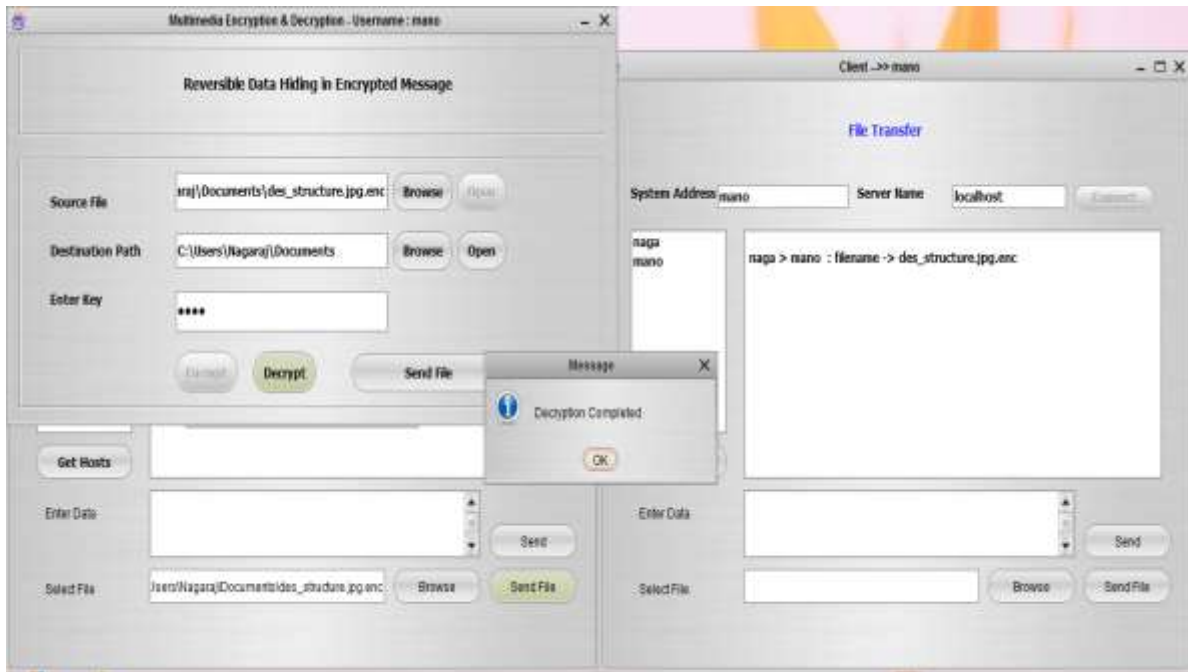
# SYSTEM ARCHITECTURE



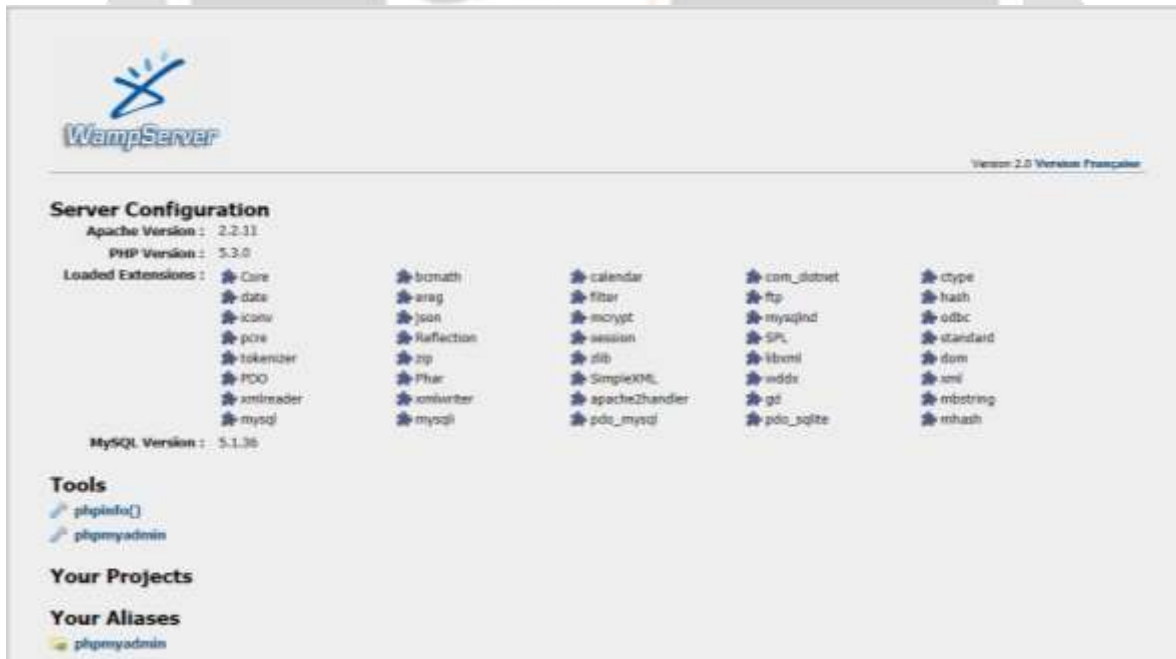
**Figure.1. Block Diagram for the system  
IMPLEMENTATION  
Encryption of Image**



### Decryption of Image



### CONNECT TO THE DATABASE



## CONCLUSION

With this we can send and receive the encrypted image and the decryption code in the various paths. This is will be more safe from third party who tries to hack the image that has been sent to the receiver. Thus this implementation will be more effective and efficient while the image is being sent and it will be more safe for sending the image.

## REFERENCES

- 1.B. S. I. Association, "The picture is not clear: How many CCTV surveillance cameras in the UK?" July 2013, form No. 195, Issue 1.0.
- 2.H. Zhang and Q. Peng, "A survey on digital image inpainting," Journal of image and graphics, vol. 12, no. 1, pp. 1–10, 2007.
- 3.A. O. Akyuz and O. Kaya, "A proposed methodology for evaluating hdr false color maps," ACM Trans. Appl. Percept., vol. 14, no. 1, pp. 2:1–2:18, Jul. 2016.
- 4.S. Ribaric, A. Ariyaecinia, and N. Pavesic, "De-identification for privacy protection in multimedia content: A survey," Signal Processing: Image Communication, vol. 47, pp. 131–151, 2016.
- 5.B.Kiran Bala, A Novel Approach to Generate a Key for Cryptographic Algorithm, Journal of Chemical and Pharmaceutical Sciences, Special Issue 2: February 2017, Pages 229-231.
- 6.B.Kiran Bala, A Novel Approach to Identify the Micro calcification Images, Journal of Chemical and Pharmaceutical Sciences, SpecialIssue2: February 2017, Pages 190-192.
- 7.B.Kiran Bala, J Lourdu, Multimodal Biometrics using Cryptographic Algorithm, European Journal of Academic Essays,2014, pages 6-10
- 8.Bala B. K, Kumar A. B. The Combination of Steganography and Cryptography for Medical Image Applications. Biomed Pharmacol J 2017;10(4).
- 9.B.Kiran Bala, Biometrics for Mobile Banking, International Journal of Technology and Engineering System, 2011, Volume 2, Issue 1,Pages95-97.
- 10.B.Kiran Bala, R.Sasikumar, Identification Of Cancer From The Mammogram Images By Using Frequency Domain Approaches,International Journal of ChemTech Research, April 2017, Volume 10 No.5.
- 11.B.Kiran Bala, T.m.nithya, Remedy For Disease Affected Iris In Iris Recognition, International Journal of Research in Engineering and Technology, November Issue 2012, ISSN: 2319 – 1163, page No. 332-334.
- 12.B. Kiran Bala and R. Sasi Kumar, Different Variety of Tomato Cultivation without Soil by Using Internet of Things Research, Biosci. Biotech. Res. Comm. 10(4): 802-804 (2017).
- 13.Bala B.K, Audithan S, Wavelet and curvelet analysis for the classification of micro calcification using mammogram images, 2 nd International Conference on Current Trends in Engineering and Technology, 2014.
- 14.Kiran Bala B, Audithan S, Kannan G and Raja K, Frequency Domain Approaches for Breast Cancer Diagnosis, Australian Journal of Basic and Applied Sciences, 10 (2), 2016, 93-96.
- 15.STUDY ON QUALITY OF WORK LIFE IN ADITYA TRADING SOLUTION PVT. LTD, B.Kiran Bala, IRACST- International Journal of Research in Management & Technology (IJRMT), ISSN: 2249-9563,Vol. 3, No.1, February 2013.
- 16.B.KIRAN BALA, ENHANCED EXPRESSIVITY USING DEONTIC LOGIC AND REUSE MEASURE OF ONTOLOGIES, Elsevier, Procedia Computer Science 54 ( 2015 ) 318 – 326.