



A

Cryptographic  
& Stegano-  
graphic  
system using  
Magic  
Rectangle &  
Genetic  
Algorithm

Monali Pawar  
Minal  
Chaudhari  
Ankita Wani  
Dhiraj  
Mahajan

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system

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Advantages

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# A Cryptographic & Steganographic system using Magic Rectangle & Genetic Algorithm

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# Outline

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- Existing System.
  - Limitations of Past Cryptographic System.
- Proposed System



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- It consists of 3 algorithms:
  - Magic Rectangle Algorithm
  - Genetic Algorithm
  - Fisher-Yates Shuffle Algorithm



# Architecture

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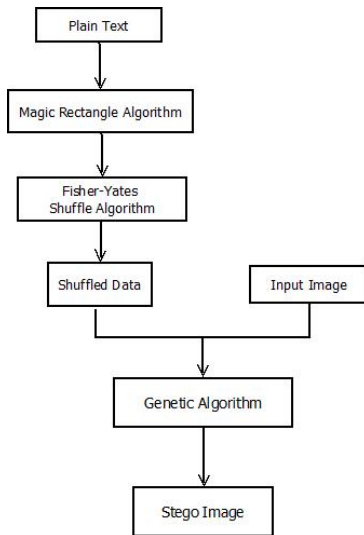
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Architecture of Proposed System



# System Design

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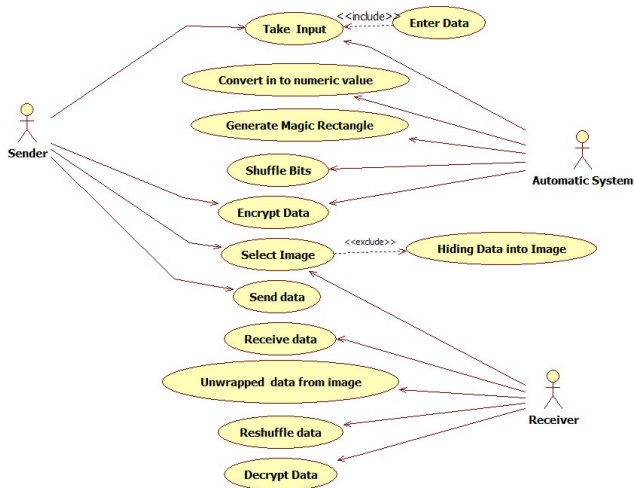


Figure: Usecase Diagram of Proposed System



# Advantages

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- 1 Enhances security of the existing system.
- 2 Increases the complexity of cipher text.
- 3 Improves efficiency.
- 4 Unbreakable cryptographic system.



# Conclusion

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- Increases the efficiency and security of the data.
- Makes a robust system, protective from different attacks.





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- Pratiksha Sethi,V. Kapoor,"A Secured System for Information Hiding in Image Steganography using Genetic Algorithm and Cryptography",International Journal of Computer Applications-June 2016.
- Dr. D.I. George Amalarethinam and J.Sai Geetha,K.Mani,"Add-on Security Level for Public Key Cryptosystem using Magic Rectangle with Column/Row Shifting",International Journal of Computer Applications (0975 8887)Volume 96 No.14, June 2014.
- "Novel Architecture for Data Shuffling Using Fisher Yates Shuffle Algorithm",C. Aishwarya, J. R. Beny,30 December 2015.
- Dr. D.I. George Amalarethinam and J.Sai Geetha,"Enhancing Security level for Public Key Cryptosystem using MRGA",IEEE 2014.



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Thank You

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