Abstract

Though security is nothing new, the way that security has become a part of our daily life is unprecedented. Attacks, misuse or unauthorized access of information is of great concern today which makes the protection of documents through digital media is a priority problem. This urges users to devise new data hiding techniques through steganography principle to protect and
secure the data of vital significance. Considerable amount of work has been carried out by
different researchers on steganography. In this work the authors propose a novel audio based
steganographic method for wav and mp3 format for hiding information. The proposed approach
works by selecting the embedding positions using some mathematical function and maps each
four bit of the secret message in each of the selected positions in a specified manner. A pseudo
random number generator is used here to locate the embedding positions of the message bits
randomly. This solution is independent of the nature of the data to be hidden and produces a
stego audio with minimum degradation.

Reference

- Gustavus J. Simmons, The Prisoners’ Problem and the Subliminal Channel, Proceedings
- RJ Anderson, Stretching the Limits of Steganography, Information Hiding, Springer
- Scott. Craver, On Public-key Steganography in the Presence of an Active Warden,
  Journal on Selected Areas in Communications (J-SAC), Special Issue on Copyright and Privacy
- N.F.Johnson. and S. Jajodia, Steganography: seeing the unseen, in IEEE Computer,
  16(1998) 26-34.
- T Mrkel., JHP Eloff and MS Olivier, An Overview of Image Steganography, in
- Souvik Bhattacharyya and Gautam Sanyal, Study of Secure Steganography model, in
  Proceedings of International Conference on Advanced Computing and
  CommunicationTechnologies,(2008).
- Souvik Bhattacharyya and Gautam Sanyal, Implementation and Design of an Image
  based Steganographic model, in Proceedings of IEEE International Advance Computing
  Conference,(2009).
- Souvik Bhattacharyya and Gautam Sanyal,An Image based Steganography model for
  promoting Global Cyber Security, in Proceedings of International Conference on Systemics,
  Cybernetics and Informatics,(2009).
- Arko Kundu, Kaushik Chakraborty and Souvik Bhattacharyya,Data Hiding in Images
- W. Bender. and D. Gruhl, Steganography: Techniques for data hiding, in IBM SYSTEMS
- Fabien A. P. Pettitcolas, Ross J. Anderson, and Markus G. Kuhn, Information Hiding-A
- Nedeljko Cvejic and Tapio Seppben, Increasing the capacity of LSB-based audio
- Samir Kumar Bandyopadhyay, Debnath Bhattacharyya, Poulami Das, Debashis Ganguly
  and Swarnendu Mukherjee,A tutorial review on Steganography, in the Proceedings of
- Souvik Bhattacharyya, Indradip Banerjee and Gautam Sanyal,A Survey of
  Steganography and Steganalysis Technique in Image, Text, Audio and Video as Cover Carrier,


**Index Terms**

Computer Science Security

**Key words**

Cover Audio Mod 16 Method for Audio (M16MA)

Stego Audio