

### **309. REVERSIBLE ENCRYPTED DATA HIDING FOR SECURED DATA COMMUNICATION**

E.Shobhika<sup>1</sup>, S.Caroline Kirupa Shiny<sup>2</sup>

ECE Department

Jerusalem College Of Engineering

Pallikarnai, Chennai, India

ishobhikaelango@gmail.com, [zcarolinesam88@gmail.com](mailto:zcarolinesam88@gmail.com)

This project proposes a reversible encrypted data hiding for secure data communication. Here, the RC4 encryption technique is used. In RC4, it generates a pseudo random keystream. It is called pseudo random because it generates sequence of numbers that approximates the properties of random numbers. Since, it uses random numbers, it will be very difficult for the hacker to get the data from the image using cryptography and steganographic techniques. On the receiving side, the hidden message can be extracted and the original image is perfectly restored. This is known as the reversible data hiding. In first stage of recovery involves only the data decryption and image decoding provides an approximated image with more distortion. In second stage, hidden bits are extracted without alteration of compressed original image contents and then decompression takes place to recover the original image.

**KEYWORDS:** Cryptography, Steganography, Reversible data hiding.

*Journal of Science and Innovative Engineering & Technology*