**M.Tech PRC-2**

**Proposed title:** Data Encryption Using Efficient Combination of AES Cryptography and Compression Steganography Techniques

**Area:** Network security and Cryptography

**Aim:**To design a hybrid encryption algorithm which compresses the given data thus reducing the time of sending data over the Internet with a complete guarantee of encrypting this data and hiding it from intruders.

**Objectives:**

To implement the proposed approach in Python software.

* Data compression scheme:

Huffman coding

* Data encryption scheme :

RSA+ Vigenere Cipher Algorithm.

* Data embedding scheme :

LSB(Least Significant Bit) Technique.

* To evaluate the performance of the proposed model based on criteria such as Compression time,Compression Ratio,Savings Percentage,SSIM.

**References:**

* O. F. A. Wahab, A. A. M. Khalaf, A. I. Hussein and H. F. A. Hamed, "Hiding Data Using Efficient Combination of RSA Cryptography, and Compression Steganography Techniques," in *IEEE Access*, vol. 9, pp. 31805-31815, 2021, doi: 10.1109/ACCESS.2021.3060317.
* A. Bose, A. Kumar, M. K. Hota and S. Sherki, "Steganography Method Using Effective Combination of RSA Cryptography and Data Compression," *2022 First International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT)*, 2022, pp. 1-5, doi: 10.1109/ICEEICT53079.2022.9768402.

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