**PROJECT STATUS REPORT FOR 8th Semester**

**Note: Please Specify NA if not applicable and AS if already submitted.**

**1. GROUP NO (If ANY):** CS-26

**2. Department/Program:** Computer Science and Engineering

**3.**

* **Date of Project Report Submission:** NA
* **Extended work of Last (7th) semester:** NA
* **New Project/Date of Change (Changed in 8th semester):** Yes, 15-03-2020

**4. MENTOR NAME:** Er. Rajesh Tripathi

**5. Status of the Project (Changes done with respect to your previous reports):** In progress, encryption steps being completed one by one

**6. Project Detail:**

* **Title:** Image Encryption using Feistel transformation and Hill encryption.
* **Title of Previous Project:** InterCode
* **Title of New Project:** Image Encryption using Feistel transformation and Hill encryption.

**7. Origin of the Project**

**(Technicality and motivation behind this work should be elaborated)**

This project was aimed at solving security issues in data transfer and to tackle different types of attacks like known plaintext attack, chosen plaintext attack, known cipher text attack, man in the middle attack etc.

We have used 3 rounds of Feistel network and Dynamic DNA encoding.

**8. Other Similar ideas available on internet (Please mention origin of sources like website addresses, ftp address etc):**

* **An Image Encryption Method Based on the Feistel Network and DNA Encoding – Xhang X., Zhou Z. and Niu Y**, for guidance on the methodology used in the project

**9. Importance of the proposed project in the context of current status and its relevance to computer science and engineering (Highlight what is the new area or gap which will be solved in the project in relating to what is already known.)**

The project brings together the power of DNA i.e. (high storage capacity and low energy consumption) together with the encryption. DNA encoding is combined with Feistel network for better and robust encryption.

*The project will eventually provide better security for data from outsiders and will surely encourage to the evolution of newer and better techniques for encryption.*

**10. Work Plan**

* **Methodology:**
* Feistel Network
* Dynamic DNA Encoding
* **Time Schedule of activities:**
* **January 2020:** Exploring possible extensions of the previous project
* **February 2020:** Exploring new technological domains to select one for our current project through research papers etc.
* **March 2020:** Analysis of available studies and paper works related to image encryption to find the procedure to implement it.
* **April 2020 - present:** Implementing the image encryption technique.
* **Outcome expected from the project and its relevance to computer science and engineering.**

Encryption of image for securely transferring image data between sender and receiver. It is necessary for today’s world where technologies have grown so fast with image data playing a vital role in it. The issue is security where the encryption of image comes into play.

The project helps us in understanding concepts of cryptography and various techniques of encryption that have a lot of potential

* **Summary of roles/responsibilities (proposed) of all students:**
* Feistel Network, Dynamic DNA Encoding & Documentation (Report): Siddharth Majumdar and Sunil Kumar
* Hill cipher encryption & Documentation (PPT) : Saurabh and Pradyumna Pandey

**Student's Information**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Registration Number** | **Name** |
| 1 | 20164044 | Siddharth Majumdar |
| 2 | 20164012 | Sunil Kumar |
| 3 | 20164104 | Saurabh |
| 4 | 20164159 | Pradyumna Pandey |

**Comments (if any):**

**Suggestions for improvement (if any): \_\_\_\_\_\_\_\_**

**Signature of Mentor**

**PANEL COMMENTS**

**Comments (if any):**

**Suggestions for improvement (if any): \_\_\_\_\_\_\_\_\_**

**Signature of Panel Representative**