**Biometric Authentication Framework Based on Genetic**

**Encryption Algorithm**

**DESCRIPTION OF THE PROJECT**

Different cancelable biometric techniques have been proposed to maintain user data security. In this project , a cancelable biometric framework is introduced to satisfy user data security and keeping the original biometric template safe away from intruders. Thus, our main contribution is presenting a novel authentication framework based on the evolutionary Genetic Algorithm (GA)-based encryption technique. The suggested framework produces an entirely unrecognized biometric template by hiding the whole discriminative features of biometric templates; this is with exploiting the outstanding characteristics of the employed Genetic operations of the utilized encryption technique. Firstly, the GA initiates its search froma population of templates, not a single template. Secondly, some statistical operators are used to exploit the resulting initial population to generate successive populations. Finally, the crossover and mutation operations are performed to produce the ultimate cancelable biometric templates.Biometric databases of the face templates are tested and analyzed.

**HARDWARE AND SOFTWARE**

The backend used is python and the server is a flask. UI is created using the HTML, CSS and JavaScript.

**PROJECT CURRENT STATUS**

After selecting the topic,the dataset was searched from kaggle.I selected olivetti dataset from kaggle.This dataset contains images.It has 40,000 distinct data in the dataset.I had completed the image preprocessing,1st level distortion,sub image selection.Now iam currently doing the 2nd level distortion using Genetic Algorithm.