

## Computer Security Folder with Image Processing

\*Bashir Omar Ali & \*\*Manasa K N  
Department of Computer Science  
St.philomena's college, Mysore.

[Bashkey2050@hotmail.com](mailto:Bashkey2050@hotmail.com) [manasakn1991@gmail.com](mailto:manasakn1991@gmail.com)

### Abstract

*Folder security protection is one of most important system that can save and protect your data. Folder security is the practice of preventing unauthorized access, use, disclosure, disruption, modification, inspection, recording or destruction of information , information security is the balanced protection of the Confidentiality, Integrity and Availability of data . folder security its allow to protect your sensitive information from unauthorized users using folder password and image comparison and detection (image processing) that allow to enhance the security of the system , when user is pass the password form it will display another form that check his/her image is recognized already if it match will display the files but if it not match it will capture the image of the un authentication user and send that image to authorized user using sms and also its provide locking, encryption decryption, and hidden the files. you will provide the method that allow to encrypt and decrypt the data , files , images and documents that allow to protect your data from un authorized users, this encrypt method we use AES algorithm that its strong and advanced other algorithm. The Advanced Encryption Standard, or AES, is a symmetric block cipher to protect classified information and is implemented in software and hardware throughout the world to encrypt sensitive data. The process of decryption of an AES cipher text is similar to the encryption process in the reverse order.*

**Keywords:** *Cryptography, Face Reorganization, Face Compression and Detection, Security*

### Introduction

Secure Folders provides protection for your sensitive files and documents by hiding them or locking them, and creating password-only access authorized user. No matter what you're trying to keep safe, this system gives you the tools to do it the way you want through its intuitive and streamlined interface and provide a good security system for computer folders. This proposed system provides various features like authorized face register or save , receive notification about un authorized access your folder via message, and keeping the un authorized image captured encryption decryption method and data hiding methods.

Image processing is a method to convert an image into digital form and perform some operations on it, in order to get an enhanced image or to extract some useful information from it.

This paper proposes a System to provide a security for folders. After passing the password will provide next form of image compression and image detection this image compression will need to detect the original image if it match the images you will get the file but if it's not match it will capture and recognize your face and send message to authorized user about someone tried to access your information. The face recognition is a good authentication system which makes your confidential files or folders more secured. Having the face recognition login system with the Windows computer folders ensures that no one can break into your system without you as there is no chance of stealing your log-in password. In the earlier of this decade, this was a myth for the general computer users since the use of webcams or any security camera with compute was rare.

But, from the last 2-3 years, the usage of webcam has been grown significantly. Almost every laptop or note book is now featured with an inbuilt webcam which can be used for not only communicating with your friends but also integrating the face recognition log-in system with Windows or other operating systems easily and costless. If you do not have any inbuilt webcam with your computer (Desktop PC or older laptops) you can always assemble a webcam (is not so much costly these days) with it.

## **Literature Review**

Studies so far shows that Folder Security by using Image processing is becoming popular.

**San Jose et.al [1]** proposed Fingerprint Authenticated Secure Android Notes. This System is Simple used to secure notes via Finger Print Authentication. This System can also be referred as Keyless Authentication unlike traditional way where it needed a password to enter. This System doesn't have any Registration but only the owner of the phone can access these notes as it searches for the owners print.

**Findphone.cmcm.com. [2]** implemented CM Security. It will ask you to set a CM Security password and you will be able to locate your phone on a map you can also lock your device to protect your privacy. If anyone tries to break into your phone and enters the incorrect password 3 or more times, the app will take a picture of the infiltrator and keep it.

**Raikoti Sharanabasappa1 et al.[3]** A Unique Document Security Technique using Face Biometric Template Human face is generally viewed as most flexible model when it comes to the field of biometric applications. A unique binary string generated out of facial features of a person is called a template. This template is used in several applications like network security, public key cryptography and so on. A framework needs users to register with the system along with their face instances. The instances are used for training samples. Once a user selects a folder for encryption, all the files of the folders are encrypted with the templates generated from users face data. A decryption request needs to be authenticated through the face data and the template generated at the time of decryption is used for decrypting the encrypted files.

**Ms. Achla Devi1 [4]:** Implemented an Iris Based Security System Using Matlab Based Image Processing, Biometrics is technology of identifying human subjects by means of measuring & analyzing more than one intrinsic behavioral / physical traits. Iris recognition is method of biometric to be identify its use mathematical recognition techniques on video images of one or both of irises of an individual eye, whose difficult random patterns are unique, stable, & could be seen from some distance.

**Mr. Saurabh Mitra2 [5]** proposed a Secure Data Hiding Technique Using Video Steganography Emergence of internet has made it possible to transfer the data from one place to another place

rapidly and accurately. This data when goes through the internet may become a victim of the hackers who can steal, modify and misuse the information. Therefore it is necessary to transfer the data with utmost security. Steganography is one such solution to this problem.

## Methodology

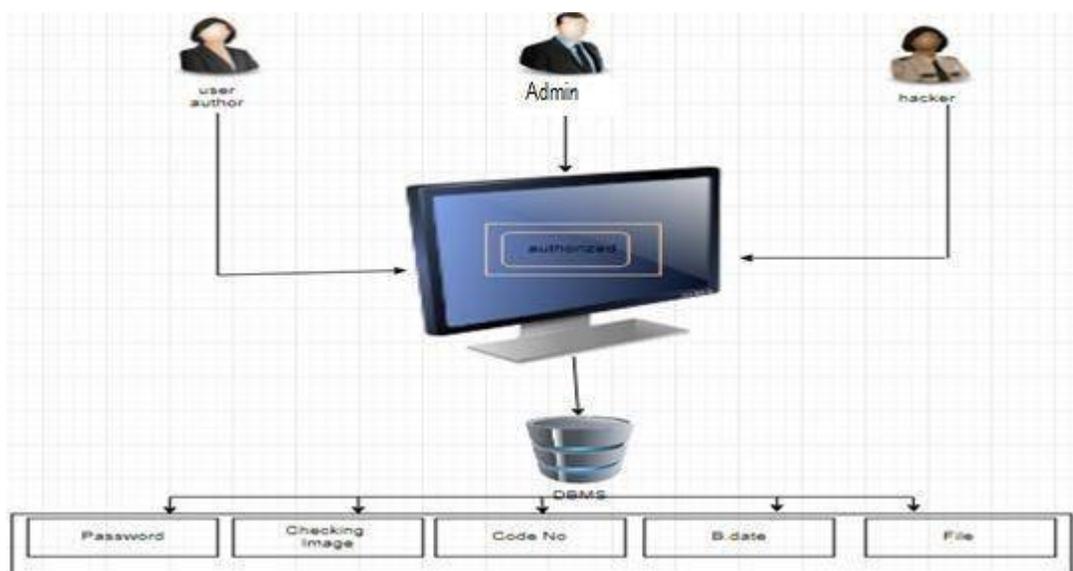


Figure 1: System Architecture

The new system provides to protection for your sensitive information and documents by locking of the faces, and provide to capture face from unauthorized user access . No matter what you're trying to keep safe, this app gives you the tools to manage your computer folder efficiency and integrity. In this system using simple service to take photo of when unauthorized user trying to access my sensitive information, the are two cases might take either

- [1] When the user insert the correct password will pass next face of the image compression and detection of the faces if it detect the face user will get the files and also user can lock , unlock, hidden, un hidden ,encrypt and decrypt the files, but if the user insert wrong

password can't pass the password phase and web camera will be turned on and capture the face of the unauthorized user that tried to access your files, and it will send you the text message about someone tried to access your information

[1] When the user insert the correct password and pass this phase it will provide another phase of image compression and detection that allow to detect the faces if the face is registered already, but if the user is not registered his face already he/she will get another forms that check the code no and birth date of the user if it match the birth date and code no the user will get the files but the web camera will capture his face and store.

For this activity you will provide the high and strong security because we are used for the face reorganization and detection that can allow your system can not open unless your face only , in the password security can break and guess but in this method no one can break and guess your face unless for you only.

And this systems will provide a lot of services that is allow to lock your folder using your password and your face, and also you can unlock your information and hidden , un hidden , encryption and decryption your files for you only ,no one can open your files because its require your face except some user that provide permission for you , for those they will get extra security for checking the code no and birth date. Also, provide SMS services that allow to notification about accessing your information from un authorized user and also it will capture the face of the un authorized user that can allow to know who accessed your files.

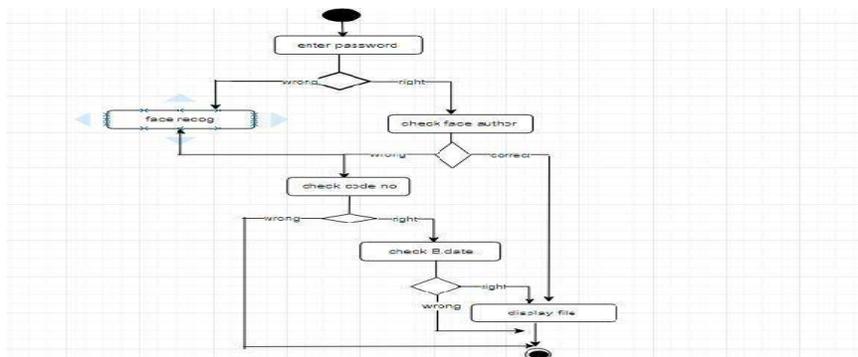


Figure 2: Activity diagram

## Conclusion and Future Work

This system provide high security protection using the password and image processing that it allow the user to keep his information safely and reliability , if the unauthorized user pass the logging form he/she cannot pass the image detection form because its required image of the user authentication

This application provides various features like an authorized face recognition, receive notification about an authorized access your folder via message, and keeping the authorized image captured and encryption decryption method and data hiding methods.

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