**Chapter 2**

**Introduction:**

The ability to control the information one reveals about oneself over the Internet, and who can access that information, has become a growing concern. In order not to give away too much personal information, data should be encrypted.

Many of the computer user wants to send such type of data that can be only seen by the person i.e. in his/her presence only, this leads to a different idea of implementing cryptographic techniques to do so.

In this project I’ve implemented different cryptographic and Steganography techniques to get data secure, and also text modification and data transfer techniques are also implemented.

**2.1 Software Basis:**

Basis of my project is to implement simple to advance cryptographic techniques and also some other simple data hiding techniques to get a user friendly generic software.

**2.2 Implementation:**

* Algorithms: about all common type of encryption algorithms can be implemented.
* Wi-Fi: Encrypted data sending through WiFi that will be fully secured.
* Email Security: Emails can be now secured.
* Different Password: Passwords and Keys for every encryption process.
* Drive Hiding: Drive, Folder and secure wallet can be made hidden.
* Drive Encryption: Fully drive security, it may be hard-drive or Flash drive.
* Message Hiding: Message hiding techniques will be used.
* Other: Many other features will be implemented during the project development, i.e. graceful up-gradation.

**2.3Modules:**

* Splash Screen: Live Working Splash screen.
* Password: Asking for the Master password for authenticating a valid user.
* Set Password: Used in case of changing new password.
* Encryptor: To encrypt different files with different encryption algorithm as per selected by the user.
* Decryptor: To decrypt different files into its original form with different decryption algorithm as per selected by the user.
* Hidden Message: Stegnographic technique implementation for both message hiding and un-hiding from different files.
* Folder Compression: Module to compress files in a folder.
* Wi-Fi Sender: A Module by which one can send any type of file (text, multimedia, system file, execution file, etc.) through proper encryption through Wi-Fi.
* Email Sender: Desktop client of email server to encrypted send email through SMTP.

**2.4 Future Plans:**

The modules can be upgraded as per technology implementation and also it can be made available for all people via internet and also many other techniques can be implemented as per requirements.