­­­­­VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“JNANA SANGAMA”, BELGAUM – 590018, KARNATAKA



A Project Synopsis on

“StegMate – Android based Steganography Application”

Submitted in Partial Fulfilment of the Requirement of the Award of the Degree of

Bachelor of Engineering in Computer Science and Engineering

Submitted by

RAJEEV LAXMANRAO MAHENDRAKAR [4UB20CS034]

S. NETRA [4UB20CS035]

SAHANA S.N [4UB20CS036]

SANKETH KUMAR [4UB20CS037]

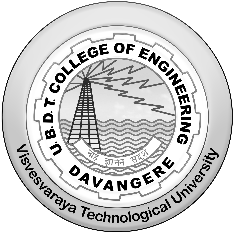
Under the Guidance of

Dr. Shreedhara K. S.

Chairman and HOD

DOS in Computer Science & Engineering

UBDTCE



­­

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

University B.D.T. College of Engineering, Davanagere – 577004

AIM:

The primary aim of the project is to implement the Steganography Application. And to test for its advantages and disadvantages adhering to discover them and make necessary improvements.

INTRODUCTION:

Steganography is a fascinating process that involves hiding secret information within an unsuspecting graphic. The word "steganos" comes from the Greek language, meaning "hidden" or "covered," while "graph" means "to write." It's a domain of Computer Science that often goes hand-in-hand with Cryptography. Steganography can be implemented in many different ways, and simple Cryptographic Algorithms can be used to achieve it.

One of the most common applications of Steganography is the concealment of information within computer files. Digital steganography involves embedding steganographic coding within a document file, image file, program, or protocol. Media files are beneficial for steganographic transmission due to their large size.

Steganography can take many forms, including Text Steganography, Image Steganography, Audio Steganography, Video Steganography, and Network Steganography. When compared to Cryptography, the primary goal of Steganography is to hide data or information, whereas Cryptography is focused on making the information unreadable or unintelligible.

One of the significant advantages of Steganography is that the information is so well-hidden that it's virtually unidentifiable.

Android is one of the most widely used mobile operating systems in the world. With its user-friendly interface, customizable features, and open-source platform, it has become a popular choice for mobile app development.

Android app development has several advantages over other platforms. For starters, Android has a vast user base, which means that there is a high demand for Android apps. Additionally, Android apps can be developed using a wide range of programming languages, including Java, Kotlin, and C++. This offers developers the flexibility to choose the language that they are most comfortable with.

Furthermore, Android provides a comprehensive set of tools and libraries that make the app development process more efficient. Overall, Android app development is an excellent choice for building robust, scalable, and user-friendly mobile applications.

Our project focuses on identifying different existing applications, testing them, and building more efficient, bug-free software that can be incorporated into many different industrial solutions.

OBJECTIVES:

* To learn about the different algorithms used in the process of Steganography.
* Discover and test the existing Steganography Applications and learn the technologies behind them.
* Identify the different Algorithms used for it.
* Implement our own Steganography Application using the learned techniques.

TECHNOLOGIES USED:

OS : Android

Programming Language : XML, Java

Algorithms Used : RSA, DES, AES

DIAGRAM:

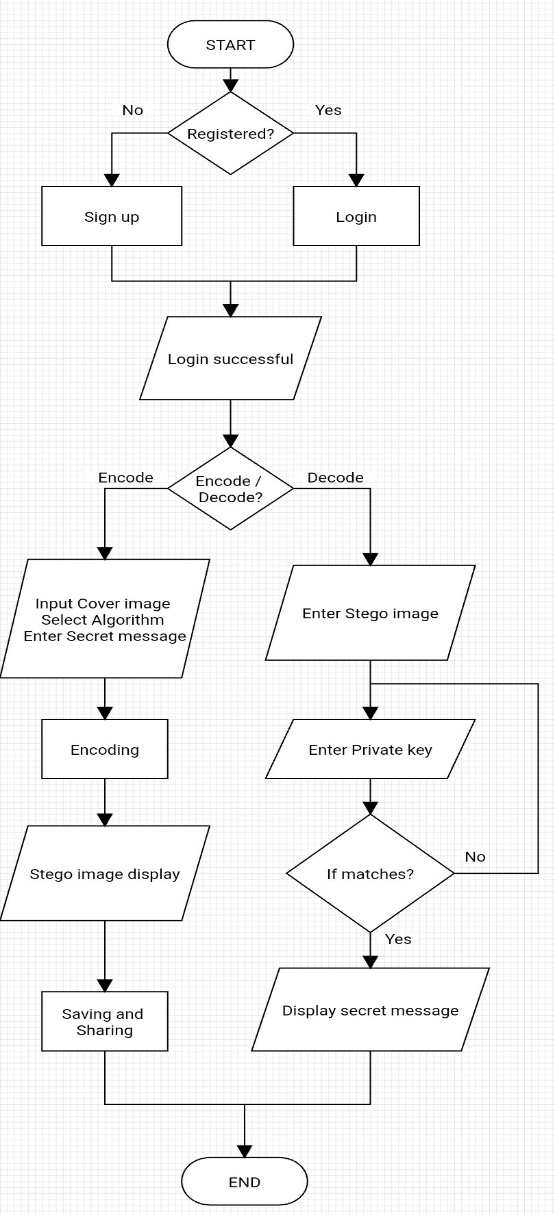


Fig 1: Flowchart of Application working

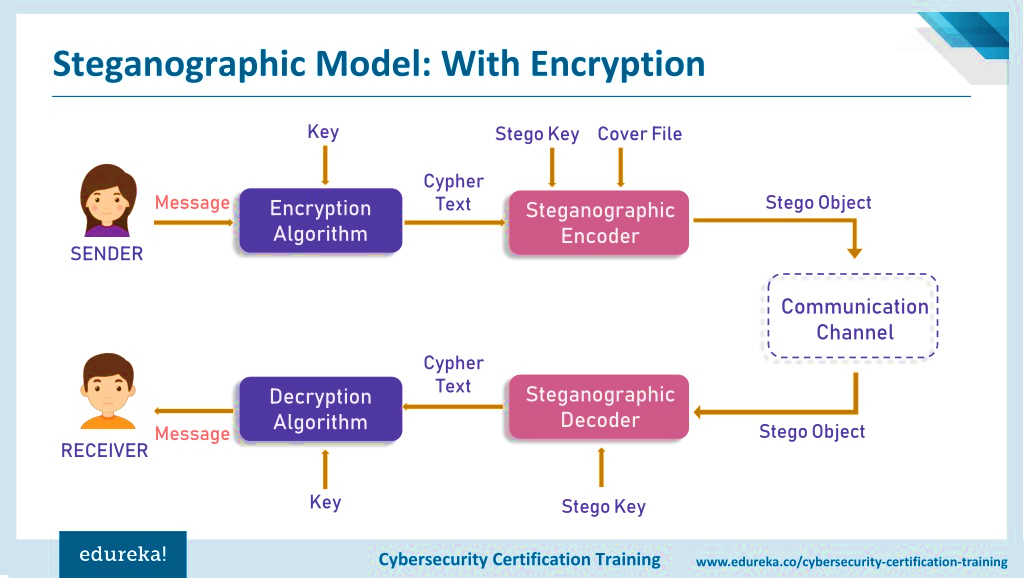


Fig 2: Process of Steganography

EXPECTED OUTCOME:

* Android Application with User Interaction – Registration and Login.
* It also includes – Encoding and Decoding of Secret messages within Images.
* Sharing of the images is also included.

REFERENCES:

[1] Zavrak, Sultan, Seyhmus Yilmaz, and Huseyin Bodur. "An Implementation of Android-based Steganography Application." International Journal of Computer Science and Information Security 13.12 (2015): 73.

[2] Ullah, Azmat, and Mohsin Ijaz. "Stego App: Android based Image Steganography Application using LSB Algorithm." Int. Res. J. Eng. Technol 5.9 (2018): 862-865.

[3] Bucerzan, Dominic, Crina Ratiu, and Misu-Jan Manolescu. "SmartSteg: A new android based steganography application." Int. J. Comput. Commun. Control 8.5 (2013): 681-688.

[4] Apau, Richard, and Clement Adomako. "Design of image steganography based on RSA algorithm and LSB insertion for android smartphones." International Journal of Computer Applications 164.1 (2017): 0975-8887.