

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“JNANA SANGAMA”, BELGAVI-590018



A Project Report on

“ENIGMA – A TOOL FOR CYBERSECURITY”

Submitted in partial fulfilment of the requirements for the award of degree of

BACHELOR OF ENGINEERING

IN

INFORMATION SCIENCE AND ENGINEERING

Submitted by:

**SUMANTH N [1JT18IS057]
SHRINIDHI HOLLA [1JT18IS054]
PRAJWAL VS [1JT18IS044]**

Under the Guidance of

Ms. RAKSHATHA S
Assistant Professor, Dept. of ISE,
Jyothy Institute of Technology,
Bengaluru.



DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

JYOTHY INSTITUTE OF TECHNOLOGY, BENGALURU-560082

2021-2022

JYOTHY INSTITUTE OF TECHNOLOGY

Off Kanakapura road, Tataguni, Bangalore-560082.

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING



CERTIFICATE

Certified that the Project work entitled **“ENIGMA – A TOOL FOR CYBER-SECURITY”** carried out by **SUMANTH N [1JT18IS057]**, **SHRINIDHI HOLLA [1JT18IS057]**, **PRAJWAL VS [1JT18IS044]** are bonafide students of **JYOTHY INSTITUTE OF TECHNOLOGY** in partial fulfilment for the award of **“BACHELOR OF ENGINEERING”** in **INFORMATION SCIENCE AND ENGINEERING** as prescribed by **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the academic year **2021-2022**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the Departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Ms. Rakshatha S
Assistant Professor
Dept. of ISE

Dr. Harshvardhan Tiwai
Assoc. Professor & Head
Dept. of ISE

Dr. Gopala Krishna KN
Principal
JIT, Bangalore

EXTERNAL VIVA

Name of the examiners

Signature with date

1. _____

2. _____

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Regards,

SUMANTH N [1JT18IS057]

SHRINIDHI HOLLA [1JT18IS054]

PRAJWAL VS [1JT18IS044]

DECLARATION

We, the students of final semester of **Information Science and Engineering, Jyothy Institute of Technology, Tataguni-560082** declare that the work entitled “**ENIGMA - A TOOL FOR CYBERSECURITY**” has been successfully completed under the guidance of **Ms. RAKSHATHA S**, Asst. Professor, Department of Information Science and Engineering, Jyothy Institute of technology, Tataguni. This dissertation work is submitted to **Visvesvaraya Technological University** in partial fulfilment of the requirements for the award of **Degree of Bachelor of Engineering in Information Science and Engineering during the academic year 2021 - 2022**. Further the matter embodied in the project report has not been submitted previously by anybody for the award of any degree or diploma to any university.

Place:

Date:

SUMANTH N [1JT18IS057]

SHRINIDHI HOLLA [1JT18IS054]

PRAJWAL VS [1JT18IS044]

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ABSTRACT

The present web world is overwhelmed with gigantic measure of information which is coming about information spillage and robbery of data. Therefore, it is necessary to build a powerful algorithm which ensures the data security and prevents cyber-attacks.

This project intends to create a tool/ system application “Enigma” that hides the cipher text within the given image, the cipher text is generated with the help of a 3-D PythoCrypt algorithm. This PythoCrypt technique transforms the Plain text into a non-interpretable Cipher text. This approach yields a secure and powerful methodology which is difficult to intercept.

Steganography is a form of security technique through obscurity, the science and art of hiding the existence of a message between sender and intended recipient. Steganography has been used to hide secret messages in various types of files, including digital images, audio and video. The three most important parameters for audio steganography are imperceptibility, payload, and robustness. Different applications have different requirements of the steganography technique used. Image Steganography is technique which is used to hide the hide the information inside the pixels of an image.

CHAPTER 1

INTRODUCTION

CHAPTER 2

LITERATURE SURVEY

CHAPTER 3

DEVELOPING ENIGMA

CHAPTER 4
SOFTWARE REQUIREMENTS
AND
SPECIFICATIONS

CHAPTER 5

DESIGN AND ARCHITECTURE

CHAPTER 6

IMPLEMENTATION

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RESULTS AND SNAPSHOTS

CHAPTER 9

SCOPE AND FUTURE WORK