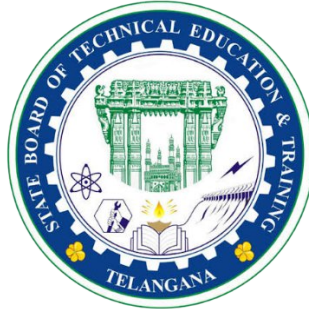A PROJECT REPORT

ON

IMAGE STEGANOGRAPHY

A dissertation submitted to TS SBTET in Partial fulfillment of the requirement

for the award of

DIPLOMA IN COMPUTER ENGINEERING

<u>SUBMITTED BY</u>

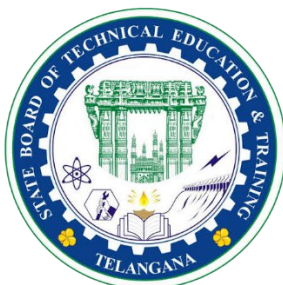|	
KURAKULA ANUSHA	**20189-CM-010**
POTHUGANTI NAVANITHA	**20189-CM-013**
THOTA ESHWAR	**20189-CM-017**
AVADHUTHA PREMSAI	**20189-CM-020**
ELKARI SREEJA	**20189-CM-023**
ARIGE SRI RAM TEJA	**20189-CM-037**
PENDAM SAHRUDAY	**20189-CM-038**
GAJULA ABHISHEK	**20189-CM-049**
REDDY LEELA VENKATA KRISHNA PRASAD	**20189-CM-041**

Under the esteemed guidance **Mr. NITIN PAWAR,** **M.S(BITS, PILANI) , (M.TECH, OU)**

DEPARTMENT OF COMPUTER   ENGINEERING
GOVERNMENT POLYTECHNIC, SIDDIPET
SIDDIPET DISTRICT, TELANGANA
(Affiliated to SBTET, Hyderabad)
2022-2023

GOVERNMENT POLYTECHNIC, SIDDIPET

(Affiliated to SBTET-TS, Hyderabad)
(Village: Rajgopalpet, Mandal: Nangunoor, District: Siddipet)

CERTIFICATE

This is to certify that the dissertation work entitled **"IMAGE STEGANOGRAPHY"** are the work done by

KURAKULA ANUSHA	**20189-CM-010**
POTHUGANTI NAVANITHA	**20189-CM-013**
THOTA ESHWAR	**20189-CM-017**
AVADHUTHA PREMSAI	**20189-CM-020**
ELKARI SREEJA	**20189-CM-023**
ARIGE SRI RAM TEJA	**20189-CM-037**
PENDAM SAHRUDAY	**20189-CM-038**
GAJULA ABHISHEK	**20189-CM-049**
REDDY LEELA VENKATA KRISHNA PRASAD	**20189-CM-041**

submitted in partial fulfillment for the award of **DIPLOMA IN COMPUTER ENGINEERING** and submitted to the State Board of Technical Education and Training (TS), Hyderabad. It is record of bonafide work carried out by them under our guidance and supervision. The results embodied in this project report have not been submitted to any other institutions for the award of Diploma.

INTERNAL GUIDE
Mr. NITIN PAWAR, M.S (BITS, PILANI) , (M.TECH, OU)

HEAD OF THE DEPARTMENT
Mr. NITIN PAWAR, M.S (BITS, PILANI) , (M.TECH, OU)

EXTERNAL EXAMINER

PRINCIPAL
Mr. G. SURYANARAYANA, M. TECH

DECLARATION

We students of Diploma in **"Computer Science and Engineering"** hereby declare that the results in this dissertation work entitled **"IMAGE STEGANOGRAPHY"** is the bonafide work done and carried out during the year 2022-2023 in partial fulfillment of the academic requirements for the award of **"Diploma in Computer Science and Engineering"** from **GOVERNMENT POLYTECHNIC, SIDDIPET**. This project was done under the supervision of **Sri Mr. NITIN PAWAR, M.S (BITS, PILANI), (M.TECH, OU),** Head of **Computer Science and Engineering** Department. Further, we declare that the report has not been submitted to any other institute or university for award of any other degree.

KURAKULA ANUSHA	**20189-CM-010**
POTHUGANTI NAVANITHA	**20189-CM-013**
THOTA ESHWAR	**20189-CM-017**
AVADHUTHA PREMSAI	**20189-CM-020**
ELKARI SREEJA	**20189-CM-023**
ARIGE SRI RAM TEJA	**20189-CM-037**
PENDAM SAHRUDAY	**20189-CM-038**
GAJULA ABHISHEK	**20189-CM-049**
REDDY LEELA VENKATA KRISHNA PRASAD	**20189-CM-041**

ACKNOWLEDGMENT

This is an acknowledgment of the intensive drive and technical competence of many individuals who have contributed to the success of our project.

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of the people who made it possible and whose encouragement and guidance has been a source of inspiration throughout the course project.

We would like to express our deep sense of gratitude and whole-hearted thanks to our project guide, **Mr. NITIN PAWAR, M.S (BITS, PILANI), (M.TECH, OU)**, Head of **Computer Science and Engineering** Department**, Government Polytechnic Siddipet**, for giving us privilege of working under his guidance with tremendous support and cogent discussion, constructive criticism and encouragement throughout this dissertation work carrying out project work. We thank to our respected principal, **Mr. G. SURYANARAYANA, M. TECH** for the support to complete our project work and allowing us to make all the resources available to us students.

We also extend our thanks to the entire faculty of the Department of Computer Science and Engineering, Government Polytechnic who encourages us throughout the course of our Diploma and allowing us to use the many resources present in the Department.

My sincere thanks to our parents and friends for their valuable suggestions, morals, strength and support for the completion of our project.

KURAKULA ANUSHA	**20189-CM-010**
POTHUGANTI NAVANITHA	**20189-CM-013**
THOTA ESHWAR	**20189-CM-017**
AVADHUTHA PREMSAI	**20189-CM-020**
ELKARI SREEJA	**20189-CM-023**
ARIGE SRI RAM TEJA	**20189-CM-037**
PENDAM SAHRUDAY	**20189-CM-038**
GAJULA ABHISHEK	**20189-CM-049**
REDDY LEELA VENKATA KRISHNA PRASAD	**20189-CM-041**

ABSTRACT

In this modern era, one of the major issues is to protect the secrecy of confidential data during their transmission over a public channel. So, we need a security over the data which is being transmitted. To achieve this the powerful security, Steganography is needed.

Steganography is the practice of concealing the secret message with digital images, audio and video files. The main objective of our project is to hide the data with an image which is the collection of pixels usually stored in 24bit, it is nothing but image steganography based on GUI.

Our Project aims to use the technique is LSB (Least Significant Bit) and the algorithm is spatial domain method, so, that the human eye would not notice the hidden messages within it. RGB is the color model in which each pixel is 3 bytes, uses LSB to hide the data in three color channels. RGB images where each pixel is represented by three bytes indicating the intensity of red, green and blue in which each primary color represented 8 bits. We use bmp image format as it contains uncompressed data while pixels are chosen as random rather than in order.

For implementing our project, the interactive language python with some packages is used. Robustness, hiding capacity, Perceptual Transparency are important features of steganography which made it strong, can transfer data more securely.