

A  
Project Report  
On  
**OBJECT DETECTION USING DEEP LEARNING**  
*Submitted to*  
Department of  
**Computer Science and Engineering**

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**SUMATHI REDDY INSTITUTE OF TECHNOLOGY for WOMEN**

*(Approved by AICTE, New Delhi; Affiliated to JNTU, Hyderabad)*

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



### CERTIFICATE

This is to certify that the project entitled “**OBJECT DETECTION USING DEEP LEARNING**” is submitted by S.LAKSHMI PRASANNA (206Y1A0592), NANGUNURI SUDHARANI(216Y5A0511), BAIROJU GAYATHRI(216Y5A0501) And NANNAPURAJU SAADHVINIKA(206Y1A0567) to the department of Computer Science and Engineering during academic year 2022-23.

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## ABSTRACT

Steganography is a data concealing technique which encrypts information inside an image or an audio or video file. Unlike traditional data encryption, image steganography doesn't jeopardize the information to cryptanalysis. We encrypt the plain text with a randomly generated key using the XOR and One Time Pad (OTP) algorithms, then insert this text in the Least Significant Bit(LSB) of the cover image. Image scrambling is the method of rearranging the pixels randomly to make the image visually unreadable and break the correlation between the neighboring pixels. Visual cryptography is a type of encryption that hides text data in image in such a way that it can only be decrypted by using the correct combination of key and the image. Using both of these increases the security of the system while also making it more difficult to decipher.

It is the technique of concealing the simple fact that communication is occurring in the first place by concealing information or data in a picture. There are more advanced approaches for hiding information in photographs, each with its own set of strengths and weaknesses. Varying applications have different steganography needs, for example, some incorporate small hidden messages while others utilize extremely complex messages. This project aims to provide a comprehensive overview of the topic of image steganography and its prominent applications in various sectors of technology.



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