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**DEPARTMENT OF
INFORMATION SCIENCE AND ENGINEERING**

A PROJECT REPORT ON

**“ENHANCED STEGANOGRAPHIC SCHEME
FOR GRAY LEVEL IMAGES USING DUAL
COVER IMAGES”**

(SPONSORED BY KSCST)

Submitted in partial fulfillment of the requirement for the award of degree of

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ABSTRACT

As the multimedia and internet technologies are growing fast, the transmission of digital data plays an important role in communication. The various digital data like audio, video and images are being transferred through the Internet. There are a lot of threats for digital data. To counter these threats, a number of security techniques have been employed to protect the data that is transferred through the Internet. We propose such a security technique, which efficiently hides secret data into an image. For a successful steganographic scheme for hiding secret data, the crucial keys are: Visual quality of stego-image, Embedding capacity and Security. An information hiding scheme with low image distortion is more secure than the one with high distortion because it does not raise any suspicions of adversaries. The other important factor is embedding capacity. Also, it is crucial that the technique should provide considerable level of security for secret data. In our project, we propose a dual-steganographic technique in spatial domain for digital images. The proposed technique basically involves the use of a look-up table, designed for embedding and extracting the secret data bits. Secret bits are embedded in pixels that are selected alternatively from both the cover images. The pixel values, resulting after embedding secret bits using look-up table, are adaptively adjusted to make them nearer to their original values. A stego-key is maintained to reflect the manipulations thus made. The technique provides high embedding capacity with good visual quality of stego-images with a sound level of security. The embedding capacity is more than that of several existing schemes.