# Digital Image hiding using curvelet transform

## ABSTRACT:

This paper presents a digital image hiding technology by using the curvelet transform. Firstly, apply Arnold transform to original image; Secondly, apply curvelet Transform to the original image and the open image, gaining their curvelet coefficients; Thirdly, interpolate their curvelet coefficients; Finally, reconstruct the image by using Inverse curvelet Transform, and thus get the result image. Simulation results show that this approach is easy to use and safety.

## EXISTING SYSTEM:

Embedding images into other images has applications in data hiding and digital watermarking. During the last few years, much progress has been made in developing watermarking techniques that are robust to signal processing operations, such as compression. Image encryption schemes have been increasingly studied to meet the demand for real-time secure image transmission over the Internet and through wireless networks. Traditional image encryption algorithm such as data encryption standard has the weakness of low-level efficiency when the image is large.

## PROPOSED SYSTEM:

- The technique makes use of curvelet transform which represents the latest research result on multi-resolution analysis.
- The proposed system, converts the image into curvelet transform numerical representation and then the vice-versa operation is made to get the original image.

## HARDWARE REQUIREMENTS

Processor            : Any Processor above 500 MHz.

Ram                  : 128Mb.

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| Hard Disk | : 10 GB. |
| Compact Disk | : 650 Mb. |
| Input device | : Standard Keyboard and Mouse. |
| Output device | : VGA and High Resolution Monitor |

## SOFTWARE REQUIREMENTS

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|---|---|
| Operating System | : Windows XP. |
| Coding Language | : DOTNET (VB.NET) |
| Simulation | : MATLAB (for checking Histogram of Original & Stegno image) |

## MODULE:

- **Image Hiding**
- **Image Recovering**

## REFERENCE:

YongHong Zhang, "Digital Image hiding using curvelet transform", IEEE Conference 2011.