

A

Major Project Report

On

## **Wavelet Based Image Fusion**

Submitted in Partial fulfilment of the requirement

For the award of the degree of

**MASTER OF TECHNOLOGY**

In

**(Signal Processing and Digital Design)**



Submitted by

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## **DECLARATION BY THE CANDIDATE**

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I hereby declare that the work presented in this dissertation entitled “**Wavelet Based Image Fusion**” has been carried out by me under the guidance of Dr. Sudipta Majumdar, Assistant Professor, Department of Electronics & Communication Engineering, Delhi Technological University, Delhi and hereby submitted for the partial fulfillment for the award of degree of Master of Technology in Signal Processing & Digital Design at Electronics & Communication Department, Delhi Technological University, Delhi.

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## **CERTIFICATE**

It is to certify that the above statement made by the candidate is true to the best of my knowledge and belief.

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## **Abstract**

A method for feature level image fusion for multimodal images in second generation wavelet domain ,that is lifting wavelet transform domain is proposed. The features fused are edge and boundary information of input images that is extracted using wavelet transform modulus maxima criterion. The image Fusion performance is evaluated by standard deviation, entropy and gradient parameters. Results shows that the purposed method gives better results for image fusion as image contrast, average information content and detail information of fused image are increased. This method has advantages of flexibility, saving of auxiliary memory, property of perfect reconstruction and simplicity.

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