A NOVEL APPROACH FOR MOSAIC IMAGE TRANSMISSION USING VARIOUS TRANSFORMS

A Project report submitted in Partial fulfillment of the requirements

For the Award of the Degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

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BONAFIDE CERTIFICATE

This is to certify that the project work entitled "A NOVEL APPROACH FOR MOSAIC IMAGE TRANSMISSION USING VARIOUS TRANSFORMS" submitted by K.KUMARI (14811A0425), A.VEERRAJU (14811A0402), B.SRI LATHA (14811A0409), CH.RAMU (14811A0410) to Avanthi Institute of Engineering and Technology, Makavarapalem, Visakhapatnam in partial fulfillment for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering, is a bonafide work carried out by them, under guidance and supervision during 2017-2018.

The results embodied in this project work have not been submitted to any other university or institute for the award of any degree.

Project guide

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EXTERNAL EXAMINAR

ABSTRACT

A novel approach to transmit images in a secure manner is proposed, in which the secret image is transformed into a same sized meaningful mosaic image. The obtained mosaic image, which is identical to the cover image and used as disguise of secret image, is obtained by segmenting the secret image into tiles and their colour characteristics are transformed to that of the cover image blocks. Noise may affect the mosaic image while transmitting it to receiver in free space. In this article, we propose a skillful approach where the external noise is suppressed using various effective transformation techniques. The secret image recovery is based on the information embedded in the transmitted mosaic image using different data hiding approaches. The proposed algorithm achieves effective de-noising and de-mosaicing in terms of peak signal to noise ratio (PSNR), root mean square error (RMSE) and visual quality at low computational cost.This provides better clarity in the retrieved secret image. It also reduces the computational complexity. The quality of the original target image remains preserved while embedding the secret image. Therefore better security and robustness is assured.

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