

Our Faculty members Dr. K. Vasanth, Dr. P. Ganesan, Dr. Harikrishna Kamatham has Published his research work titled “ An Adaptive Decision Based Interpolation scheme for the removal of high density salt and pepper noise in Images” in Eurasip journal on Image and Video Processing with impact factor 1.74.

EURASIP Journal on Image and Video Processing

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An adaptive decision based interpolation scheme for the removal of high density salt and pepper noise in images

Vasanth Kishorebabu, Ganesan Packyanathan, Harikrishna Kamatham and Vishnu Shankar

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Our Faculty Dr. K.Vasanth has Published his research work titled “ An Adaptive Decision Based Kriging Interpolation for the removal of high density salt and pepper noise in Images” in computers and Electrical engineering journal with impact factor 1.57.

An International Journal
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5-Year Impact Factor: 1.485

Source Normalized Impact per Paper (SNIP): 1.323

SCImago Journal Rank (SJR): 0.490

Computers & Electrical Engineering

Available online 4 September 2017
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An adaptive decision based kriging interpolation algorithm for the removal of high density salt and pepper noise in images ☆

K. Vasanth, R. Varatharajan, M. Gunasekaran, M. Priyan, X.Z. Gao

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Our Faculty members Dr. K. Vasanth has Published his research work titled “ Decision Based Detail Preserving Algorithm for the removal of Equal and Un Equal Probability Salt and pepper noise in Images and Video” in The International Arab Journal of Information Technology with impact factor 0.724.



The International Arab Journal of Information Technology

Decision Based Detail Preserving Algorithm for the Removal of Equal and Unequal Probability Salt and Pepper Noise in Images and Videos

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Abstract: A novel vicinity based algorithm for the elimination of equal and unequal probability salt and pepper noise with a fixed 3x3 kernel is proposed. The proposed method uses a free based matching mechanism for the replacement of corrupted pixel. The processed pixel is checked for 0 or 255, if found true then the pixel is considered as noisy else termed non-noisy and left unaltered. If the pixel is noisy then it checks for the 4 neighbors of the processed pixel. If all the 4 neighbors are noisy then mean of the 4 neighbors are replaced. If any of the 4 neighbors are not noisy then the corrupted pixel is replaced by asymmetrical trimmed mean. Under high noisy conditions if all the elements of the current processing window is noisy then global mean replaces the corrupted pixel. The proposed algorithm exhibits better performance both quantitatively and qualitatively over the standard and existing algorithms at very high noise densities. The performance of the existing non-linear filters are outclassed by the proposed algorithm in terms of PSNR, IEP, MSE, and SSIM and also preserves fine details of an image even at high noise densities. The algorithm works well even for gray scale, color images and videos.

Keywords: Unequal probability salt and pepper noise, asymmetrical trimmed mean, edge preservation.

Received July 5, 2014; accepted December 16, 2014

K.Vasanth , “Electroencephalograph (EEG) Based Emotion Recognition System” published a book chapter on Innovations in Electronics and communication Engineering.

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