Abstract

Image fusion produces a single composite image from a set of input images, which is more suitable for visual perception and computer processing. This paper proposes Singular Value Decomposition (SVD) based fusion, which yields better results. The variation of data can be captured by SVD and is used to perform the fusion by varying singular values. This approach is implemented and compared with image fusion based on PCA (Principal component analysis) and performance is evaluated using various image quality measures such as PSNR, Normalized cross correlation, Structured content, MSE, Normalized absolute error. Simulation results of proposed approach shows significant performance improvement when compared with
PCA based fusion.

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Index Terms

Computer Science

Image Processing
**Keywords**

Image fusion  PCA  SVD