COMPARISON OF MULTISOURCE IMAGE FUSION METHODS

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ABSTRACT: The main purpose of this study is to explore the performances of different data fusion techniques for the enhancement of natural features and evaluate the features obtained by the fusion techniques. The image fusion can integrate the spatial detail of panchromatic image and the spectral information of a low resolution multispectral image to obtain a fused multispectral image with high resolution. The result of image fusion is a new image which is more suitable for human and machine interpretation or image-processing tasks such as feature extraction and object recognition. For the data fusion of this research, multiplicative method, Brovey transform, principal component analysis (PCA), Gram–Schmidt fusion, wavelet-based fusion and Elhers fusion techniques are used and the results are compared.