An Approach for Object Detection in Multi Temporal Aerial Images

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Abstract

In this paper an image fusion technique is developed to detect manmade structures from multi-temporal images. Proposed method is a hybrid approach. Histogram based spectral analysis is used to remove contamination of clouds and their shadows recursively that integrates complimentary information to form a composite image from multi temporal images. Then the algorithm tries to extract edge information using discrete wavelet approach. In this work a recursive threshold based segmentation approach is used for removal of clouds and their shadows but wavelet transform is adopted for the image fusion to reduce artifacts in the fused image. Further a feature-based fusion rule is used to reduce the computing time. The proposed method is used for building detection and results show that the proposed method performs well.

References

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Index Terms

Computer Science  Image Processing
Keywords

Histogram, Wavelet Transform, Recursive