Abstract

In this work a novel technique for automatic edge enhancement and detection in synthetic aperture radar (SAR) images is proposed. The edge enhancement phase has been proven to be critical in heterogeneous SAR images, and the method proposed is a good solution that can be used to deal with this type of data. The method proposes a robust edge enhancement directly in the wavelet transformed domain based on a combination of wavelet coefficients at different scales. It does not require any type of pre filtering of input data, and is independent of the statistics of the input image. The adaptation capability of the method to very diverse scenarios with no need of a priori knowledge or settings is a useful feature in view of its integration in an unsupervised segmentation.

References

- J. M. S. Prewitt, "Object enhancement and extraction," in Picture Processing

**Index Terms**

Computer Science  
Artificial Intelligence
Keywords
   Edge detection  synthetic aperture radar (SAR)  stationary wavelet transform