Abstract

This paper presents remote sensing image matching using sift algorithm and affine transformation. The novelty in our approach is to find the features in the reference image and then match the input image with that of reference image using Affine Transformation. Both synthetic and real data have been considered in this work for the evaluation of the proposed methodology. After registering the image, the outliers are removed. A speeded up affine invariant detector is proposed in this paper for local feature extraction. The experimental results show that the proposed algorithm decreases the redundancy of key points and speeds up the implementation. It is able to account for differences in spectral content, rotation, scale, translation, different viewpoint, and change in illumination. The proposed technique improves the computational efficiency and decrease the storage requirement.

References

Remote Sensing Image Matching using Sift And Affine Transformation


Index Terms

Computer Science
Image Processing
Keywords

Image segmentation  scale invariant feature transform  affine transformation  remote sensing.