

Abstract

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Automatic Selection of Control Points for Remote Sensing Image Registration Based on Multi- Scale SIFT

In this paper, we present an automated image registration algorithm, which combines the multi-scale wavelet transform (WT) with Scale Invariant Feature Transform (SIFT). The control points are Selected using three levels WT. First, the image is decomposed into multi-scale levels using WT, then low frequency (approximation) images are input to SIFT algorithm for automatically obtaining control points. Experimental results show the efficiency and the accuracy of the proposed technique for Selecting enough and correct control points.