Abstract

Panoramic photo stitching is the process of combining multiple photographic images with overlapping fields of view to produce a panorama. The process to generate a panoramic view can be divided into three main components - image acquisition, image registration, and blending. In this paper, a robust algorithm called Scale Invariant Feature Transform (SIFT) used to extract the features from the images and matching them which is a part of image registration. SIFT features are invariant to rotation, translation, image scaling and partially invariant to 3D viewpoint, illumination changes and image noise. Image transformation is estimated using homography. Image blending technique is used to blend the images together to get a panoramic view. Main applications of panoramic view include creating virtual environment for virtual reality, modeling the 3D environment using images acquired from the real world.
Reference

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Index Terms

Computer Science  
Artificial Intelligence
Key words

Panoramic view  SIFT

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