Abstract

This research paper describes an image change detection method based upon the Discrete Fractional Fourier transform (DFrFT) along with intensity normalization and thresholding. DFrFT is used as it provides extra degree of freedom to detect accurate changed regions. The use of intensity normalization and thresholding ensure that change is based on appearance or disappearance of objects only, with removal of artifacts like illumination variations, partial translation, large daylight change and shadowing effect etc. In this paper using precision as parameter of evaluation DFrFT along with intensity normalization and thresholding produces better results than DFrFT only method.

Index Terms
Computer Science
Image Processing
Keywords

Image change detection  Discrete Fractional Fourier Transform  artifacts  intensity normalization

thresholding