Abstract

Recovering lost part of an image plays a great role in image processing. Inpainting is a technique that helps in recovering lost pixels from an image. From the existing techniques of Inpainting, Exemplar Inpainting is one of the fast and better techniques that help in restoring the lost part of an image. Exemplar based method chooses a patch similar to the lost patch from the known area to fill in the occluded surface. This paper proposes a modified exemplar based Inpainting algorithm for restoring the unknown pixels in a lost region in an image. In the proposed work, the pixel at the contour of the missing region is prioritized by taking into consideration the most known pixels around. In order to find the strength of a pixel in this proposed approach, a Sobel detector is used and the magnitude of the pixel is found. Further the most similar patch to the unknown region is searched in the known area using structural similarity index. The experimental result shows that this method shows an improvement in filling the lost region by finding the exact match from the known area of the given image.

Index Terms

Computer Science

Algorithms
Keywords

Inpainting, Exemplar Inpainting, Image inpainting, Patch based.