A Novel Image Inpainting Technique Based on Isotropic Diffusion

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ABSTRACT

Using the isotropic diffusion model as a foundation, a novel method for image inpainting was suggested. To restore various missing areas of diverse natural images, a modified version of the original isotropic model is used. When employing the original isotropic model, the results of the suggested technique are compared to those obtained results. Regarding building texture in the missing area and restoring significant missing sections, the results of the suggested model performed better than the results of the obtained isotropic model. The performance of the suggested model in comparison to the original isotropic model is examined using a number of picture quality measures, including MSE, PSNR, and SSIM. In comparation to the widely used isotropic model, the improved model performs better and provides better measures of quality assessment for a greater number of natural photos.

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