

ABSTRACT

Diminished Reality is one of the technologies that proposed for removing real world content when being visualized on screen. The need of removing unwanted content of a photo or even video, encourage people to enforces many research in building Diminished Reality application. Some of basic component that is required to build the application are the removing process of object from original image (object removal) and the filling process of the missing part (region filling). The challenge is how to fill the hole that is left behind in a visually plausible way.

This final project paper presents Object Removal and Region Filling application as a basic component for Diminished Reality application. If there is a removal (object removal) applied to an image, this application is able to fill the missing part (region filling) match with the surrounding removed area. The filling technique used in this final project is known as image inpainting.

The parameters used in this final project are SSIM, MSE, PSNR and MOS. Based on objective parameter trial result, manipulated image quality is good enough with the SSIM highest value is 0,981423, the highest PSNR value is 43.4355 dB and the lowest MSE value is 2,94802. While based on subjective parameter trial result using MOS, the average MOS criteria is varied from Fair to Excellent for some different image samples.

Key words:

Diminished Reality, Object removal, Region filling, Image inpainting