ABSTRACT

In photography, the quality of an image that is got can be sharpen image and also blurred image. A blur on an image based on the region can be divided into two kinds, they are blur in the entire of an image and blur in the spesific area on an image. A blurred image can be caused by the moving object or lack of brightness. Blur that caused by the moving object is belong to a non uniform blur. In this final project, the writer build a program that can reduce the blur on an image and then sharpen the detail of the image.

This system is designed with Matlab software version 7.8.0. The process that is done in this program are take a blurred image on the human face and the sharpen one with the same position and expression and then do preprocessing to the image, reduce the blur with blind deconvolution, and sharpen the image using laplacian kernel.

The output of the system are blurred image that has been deblurred and sharpened and the value of peak signal to noise ratio (PSNR) between sharpen image with the image that has been sharpened and between blurred image with the image that has been sharpened. The system that has been built have the average PSNR value is 73.24 dB for sharpen image with the image that has been sharpened and 89.59 dB for blurred image with the image that has been sharpened.