

امیر شکری

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تصاویر :

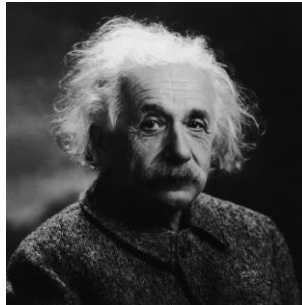


Image refrence : einstein.bmp

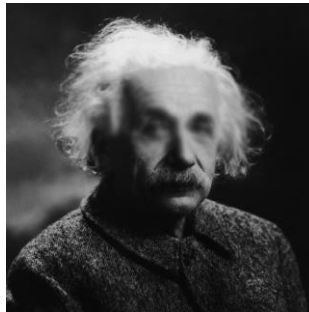


Image two (blur eye) : einstein_blur_eye.bmp

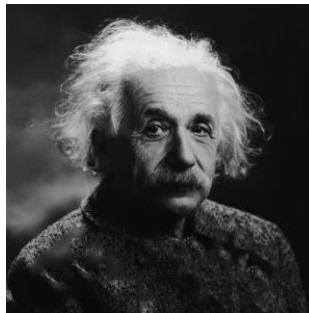


Image two (coat damage) : einstein_coat_damage.bmp

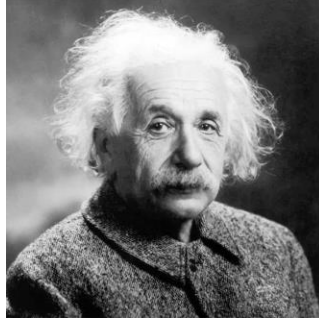


Image two (histogram change) : einstein_histogram_change.bmp

فرمول :

$$mse = \frac{\sum_{i=1}^{x_{bound}} \sum_{j=1}^{y_{bound}} (image_{ref} - image_{tow})^2}{x_{bound} * y_{bound}}$$

$$(w)mse = \frac{\sum_{i=1}^{x_{bound}} \sum_{j=1}^{y_{bound}} w_i (image_{ref} - image_{tow})^2}{x_{bound} * y_{bound}}, \quad w_i = \sum_{i=1}^{x_{bound}} \sum_{j=1}^{y_{bound}} \log(image_{ref} + 1) + 1$$

$$PSNR = 10 * \log\left(\frac{L^2}{mse}\right)$$

نتیجه ی MSE و PSNR :

Image ref :	Image ref :	Image ref :
Einstein .bmp	Einstein .bmp	Einstein .bmp
Image two :	Image two :	Image two :
einstein_histogram_change.bmp	einstein_coat_damage.nmp	einstein_blur_eye.bmp
MSE : 4505	MSE : 95	MSE : 28
PSNR : 11.6279	PSNR : 28.3876	PSNR : 33.6932

نتیجه ی WMSE و PSNR :

Image ref :	Image ref :	Image ref :
Einstein .bmp	Einstein .bmp	Einstein .bmp
Image two :	Image two :	Image two :
einstein_histogram_change.bmp	einstein_coat_damage.nmp	einstein_blur_eye.bmp
MSE : 12112	MSE : 256	MSE : 82
PSNR : 7.3326	PSNR : 24.0824	PSNR : 29.0267