

LAB_ASSIGNMENT_4

Results:



Table:

	PSNR	SSIM
Min_Filter	14.32246091323	0.4016052761096
Max_Filter	13.71815495362	0.3880592866240
Median_Filter	26.98498806360	0.8766799237931

Minimum Filter:

In minimum filter transformation the pixels are replaced with the dark pixels. we applied noise to the image but we see only dark noise this is because minimum filter picks 0 values in the image.

So the minimum filter removes just white circles from the image and dark circles remain as it is. From the above table PSNR and SSIM values for minimum filter are low. By this we understood that a minimum filter does not remove noise completely.

Maximum Filter:

In maximum filter transformation the pixels are replaced with the white pixels. we applied noise to the image but we see only white noise this is because maximum filter picks 255 values in the image.

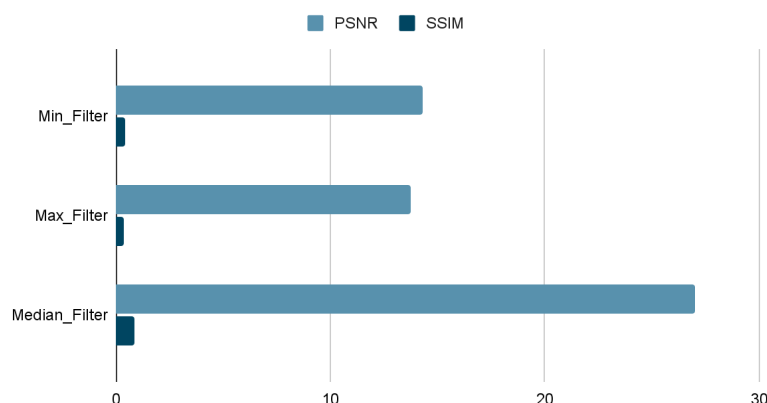
So the minimum filter removes just dark circles from the image and white circles remain as it is. From the above table PSNR and SSIM values for maximum filter are also low. By this we understood that a maximum filter does not remove noise completely.

Median Filter:

In median filter transformation the pixels are replaced with the middle values from the sorted 3x3 matrix of the pixels. when we applied noise to the image we see that noise (SALT & PEPPER) is completely removed and median filter does not pick brighter pixels and darker pixels because those pixels will be at start and end of the sorted array.

From the above table PSNR and SSIM values for median filter are high. By this we understood that a median filter removes noise completely.

Analysis:



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