**Computer Vision HW8: Noise Removal**

**R10741015 鄭傑鴻**

**Nov. 13, 2022**

|  |  |
| --- | --- |
| Gaussian Noise, Amplitude=10, SNR=13.599920550678796 | |
| Box 3x3, SNR=17.73264765621448 | Box 5x5, SNR=14.866501570632295 |
| Median 3x3, SNR=17.653337556582926 | Median 5x5, SNR=16.025808368377653 |
| Opening Then Closing, SNR=13.252348650471575 | Closing Then Opening, SNR=13.58421863680454 |

|  |  |
| --- | --- |
| Gaussian Noise, Amplitude=30, SNR=4.174460613969036 | |
| Box 3x3, SNR=12.602908789079365 | Box 5x5, SNR=13.289038440161846 |
| Median 3x3, SNR=11.07384441018871 | Median 5x5, SNR=12.88482148245749 |
| Opening Then Closing, SNR=11.12833991109291 | Closing Then Opening, SNR=11.18962807305495 |

|  |  |
| --- | --- |
| Salt and Pepper, Threshold=0.05, SNR=0.967009526036654 | |
| Box 3x3, SNR=6.332491101157763 | Box 5x5, SNR=8.506684280903068 |
| Median 3x3, SNR=14.824391857769527 | Median 5x5, SNR=15.754176559943051 |
| Opening Then Closing,  SNR=-2.17878065911415 | Closing Then Opening,  SNR=-2.6830361898574075 |

|  |  |
| --- | --- |
| Salt and Pepper, Threshold=0.1, SNR=-2.10788765565936 | |
| Box 3x3, SNR=6.332491101157763 | Box 5x5, SNR=8.506684280903068 |
| Median 3x3, SNR=14.824391857769527 | Median 5x5, SNR=15.754176559943051 |
| Opening Then Closing,  SNR=-2.17878065911415 | Closing Then Opening,  SNR=-2.6830361898574075 |