**Lab week 09 Restoration**

1. Make noise functions :
   1. **Gaussian**
   2. **Impulse (salt & pepper)**
   3. Rayleigh
   4. Erlang (Gamma)
   5. Exponential
   6. Uniform
2. Apply it (noise) to image A
3. **Display the histogram of noised image A**
4. Make a filter function or use filter function provided by OpenCV using kernel 3, 5, 7, and 9 (trackbar function)
   1. Arithmetic mean filter
   2. Geometric Mean
   3. Harmonic Mean
   4. Contra harmonic Mean
   5. Alpha trimmed mean filter

Spatial

1. Median filter
2. Max and min filter
3. Midpoint filter
4. Alpha trimmed mean filterImages
5. Restore the noised image in (no.1) using filter (no.3) that sufficient with.
6. Make the code and capture all the result here.

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| a. Gaussian noise | b. Salt & pepper noise | No. c. to f. list Noise on no. 1 |
| Capture noise by gaussian | Capture noise by salt&pepper | Capture noise by other noise |
| Restored by ….. list no. 3 | Restored by ….. | Restored image by ….. |
| Capture of restored image | Capture of restored image | Capture of restored image |