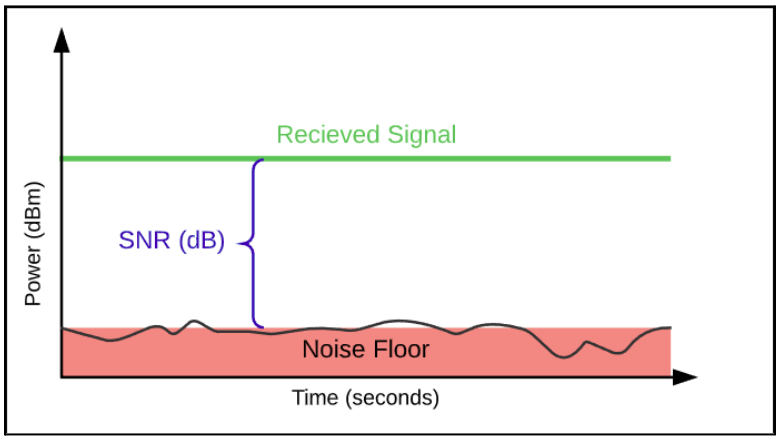
Noise

- Degrades the image
- Affects the image



Noise power should be very less compared to power of received signal

Types:

- Salt and pepper noise - either max or min
- Gaussian Noise - distributed noise

Smoothing

Technique to remove noise in an image
Linear smoothing:

- Image averaging
- Local averaging
- Gaussian averaging

Non linear smoothing:

- Rotating mask
- Median filter

Image averaging:
Take 21 images and find the average of the pixel.

Median smoothing:

- Doesn't get affected by very high values like outliers.
- Thin lines will appear in the outcome.

Mat A;

Mat B=A; // points to same memory location as A

Mat A;

B=A.clone() // different memory locations

```
string path="/home/suhas/Desktop/cpp_test/resources/noise.jpeg";
Mat image=imread(path);
Mat medianBlurImage,gaussianBlurImage;
medianBlur(image,medianBlurImage,9);
GaussianBlur(image,gaussianBlurImage,Size(5,5),9,9);
```