

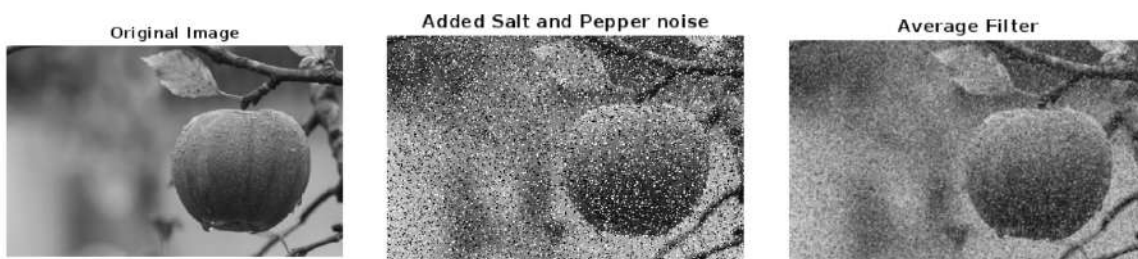
Image : [apple.png](#)

D = 0.1



Image : [apple.png](#)

D = 0.2



Median Filter



Image filtered using wiener2 filter

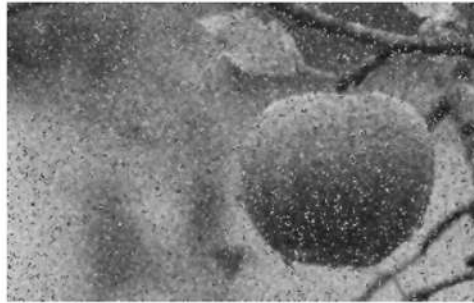


Image : [apple.png](#)

$D = 0.3$

Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter



Image : [apple.png](#)

$D = 0.4$

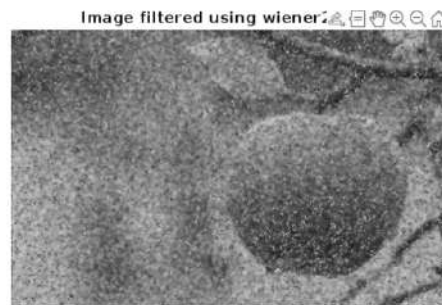
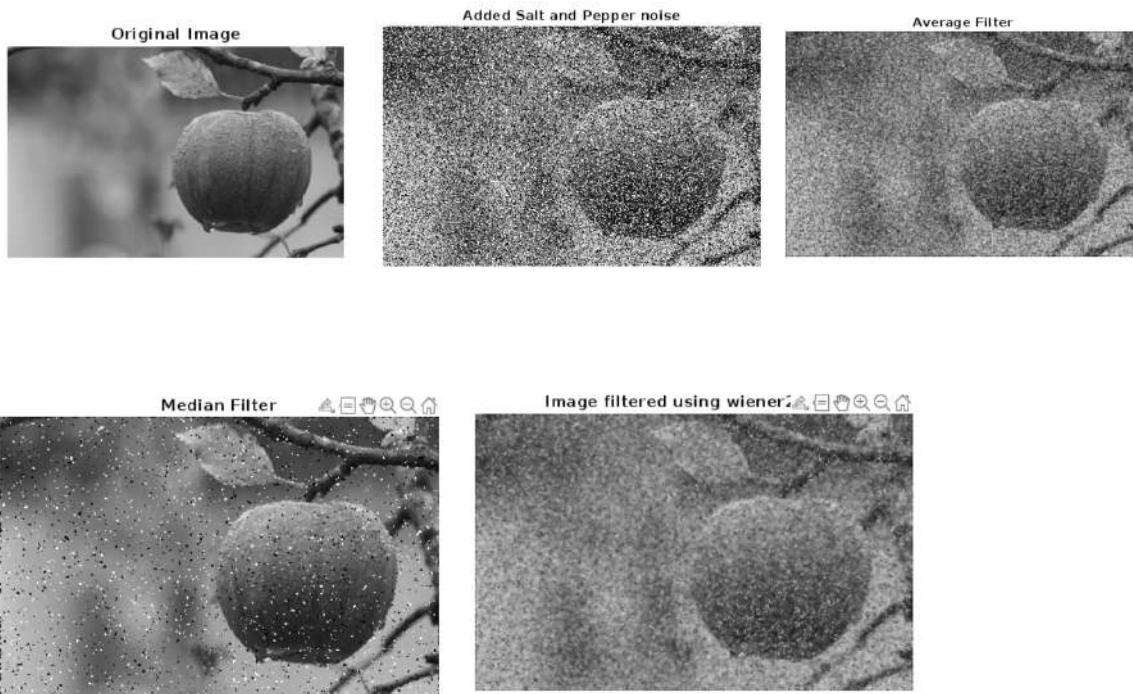
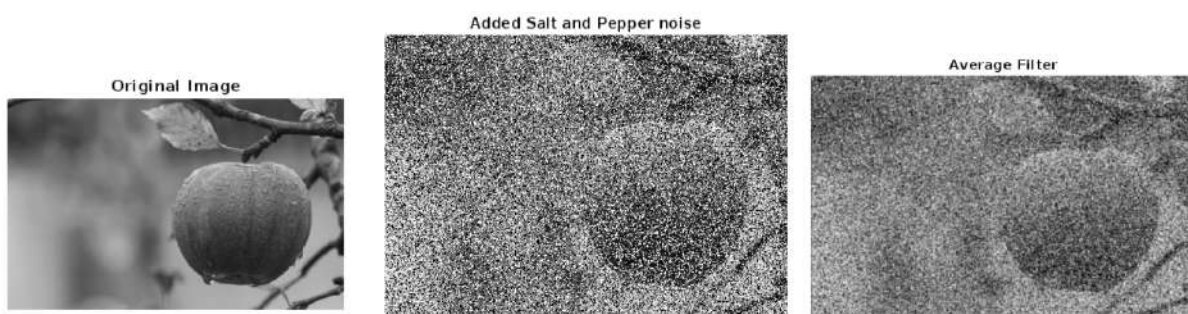


Image : [apple.png](#)

$D = 0.5$





Median Filter



Image filtered using wiener2 filter

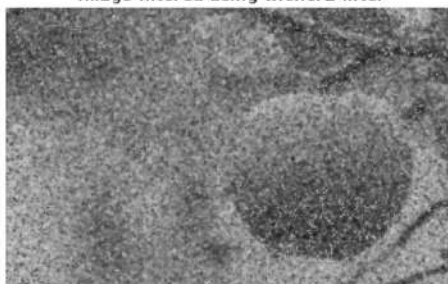
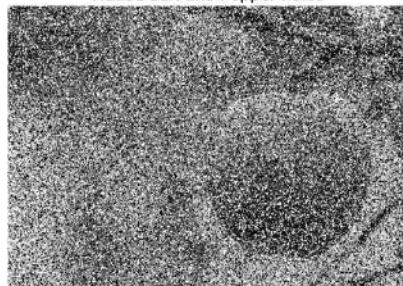


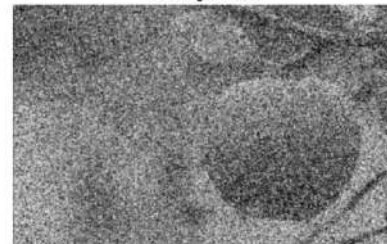
Image : [apple.png](#)

$D = 0.5$

Added Salt and Pepper noise



Average Filter



Original Image



Median Filter

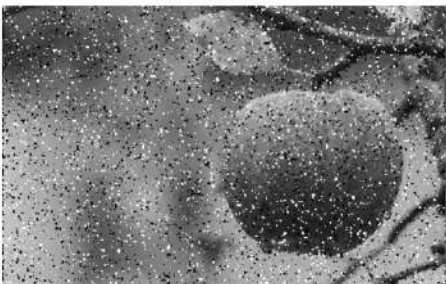


Image filtered using wiener2 filter

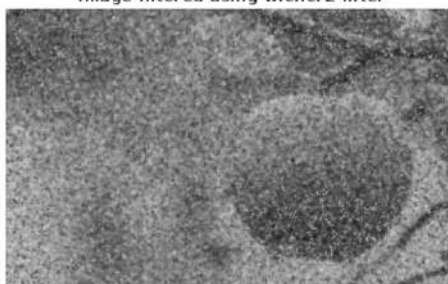


Image : [dog.jpg](#)

$D = 0.1$

Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter



Image : [dog.jpg](#)

$D = 0.2$

Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter



Image : [dog.jpg](#)

$D = 0.3$





Added Salt and Pepper noise



Image filtered using wiener2 filter



Image : [dog.jpg](#)

$D = 0.4$

Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter



Image : [dog.jpg](#)

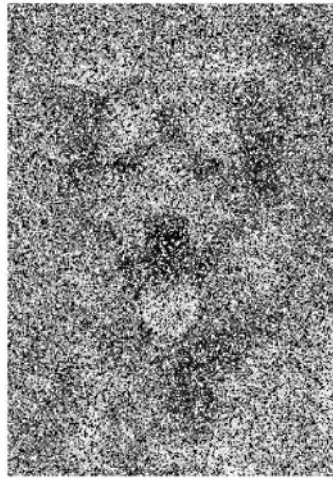
D = 0.5



Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter

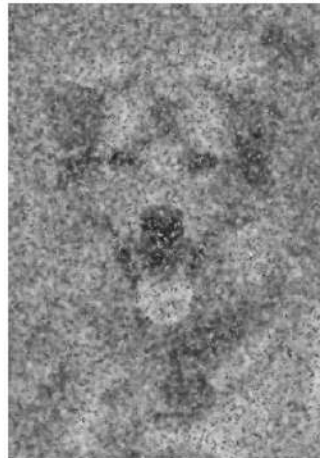


Image : [city.jpg](#)

$D = 0.1$

Original Image



Added Salt and Pepper noise



Average Filter



Image filtered using wiener2 filter



Median Filter



Image : `city.jpg`

$D = 0.2$

Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter

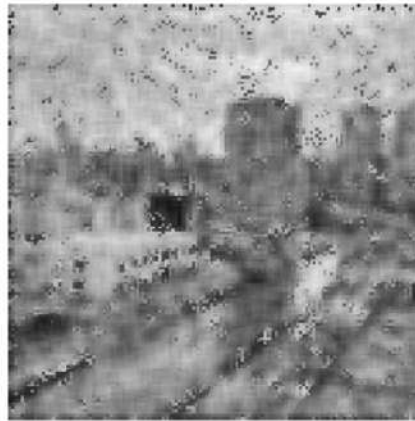


Image : [city.jpg](#)

D = 0.3



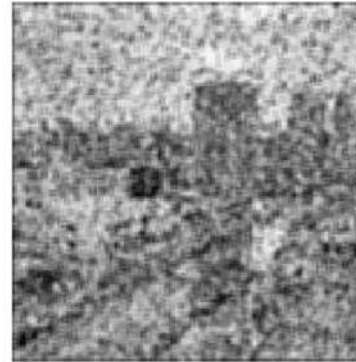
Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter

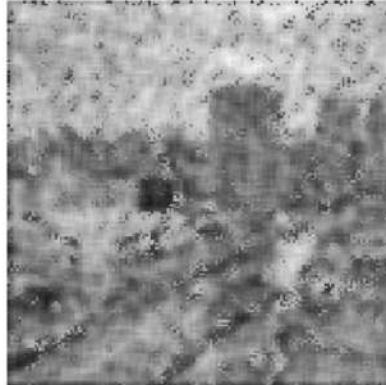


Image : [city.jpg](#)

D = 0.4

Original Image



Added Salt and Pepper noise



Average Filter



Image filtered using wiener2 filter

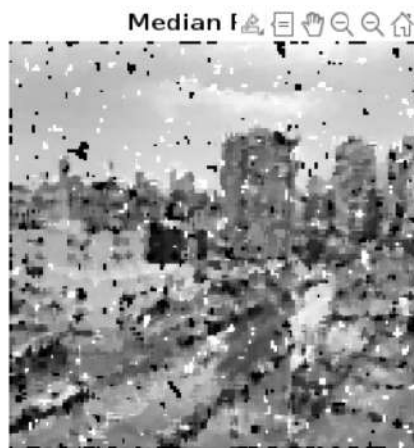
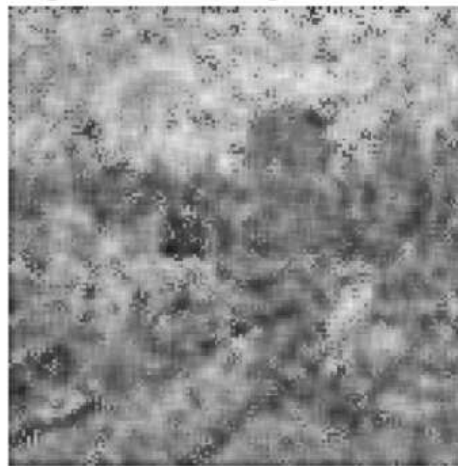


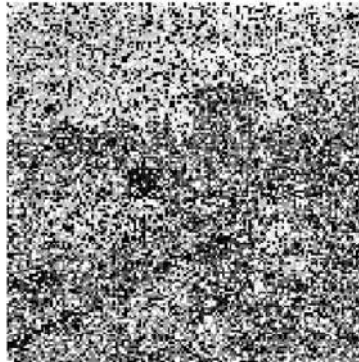
Image : [city.jpg](#)

$D = 0.5$

Original Image



Added Salt and Pepper Noise



Average



Median Filter

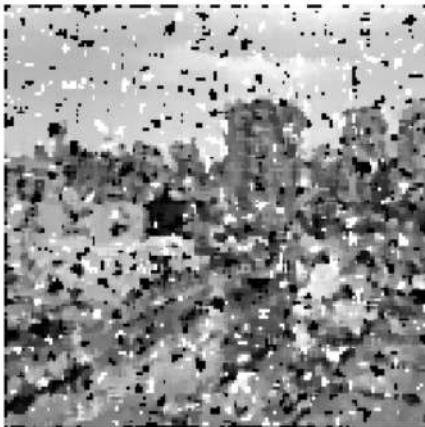


Image filtered using a Gaussian filter



Image : [flower.png](#)

$D = 0.1$



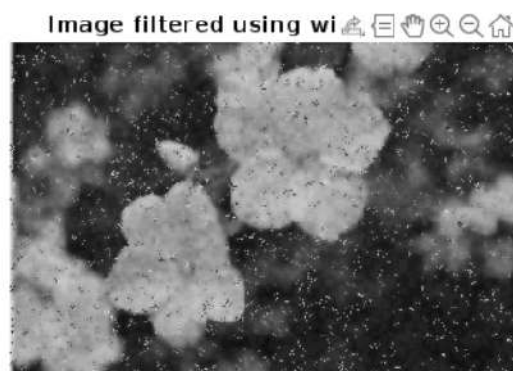
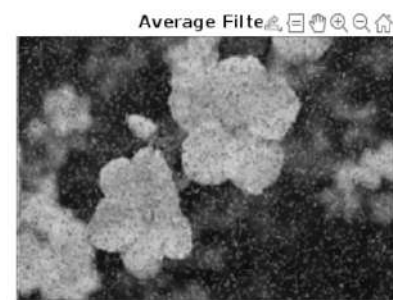
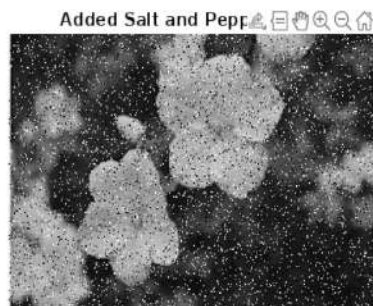


Image : [flower.png](#)

$D = 0.2$

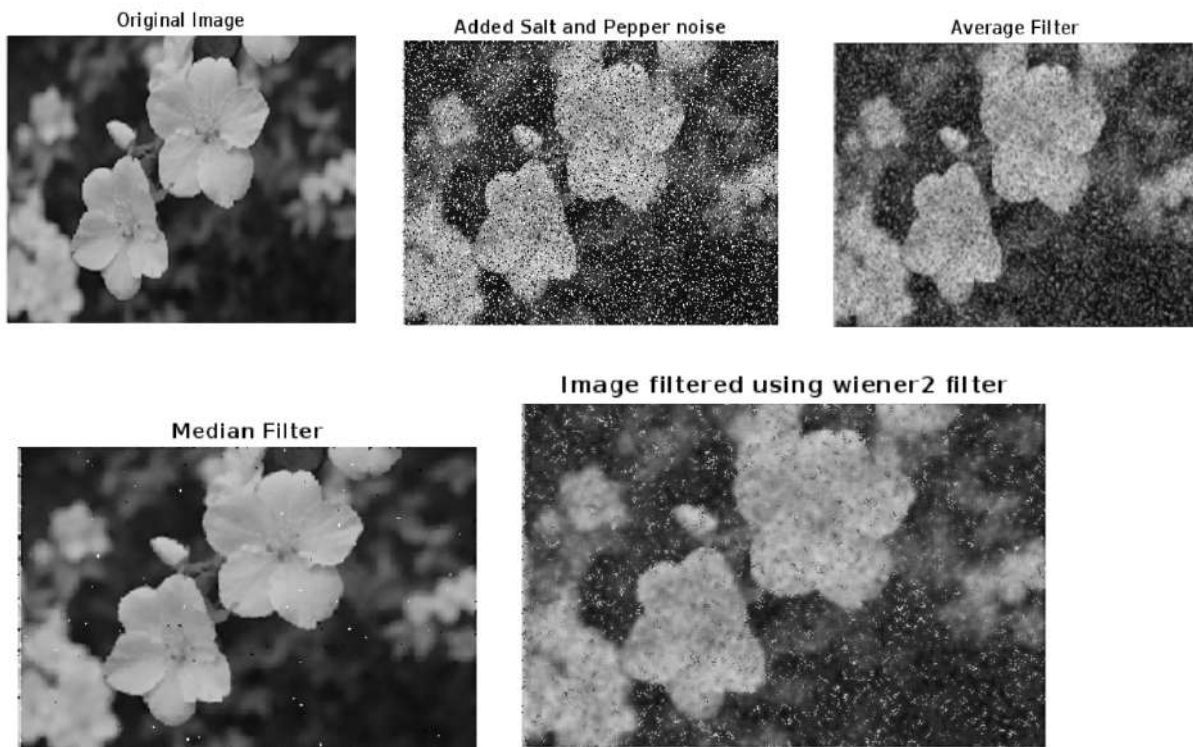


Image : [flower.png](#)

$D = 0.3$

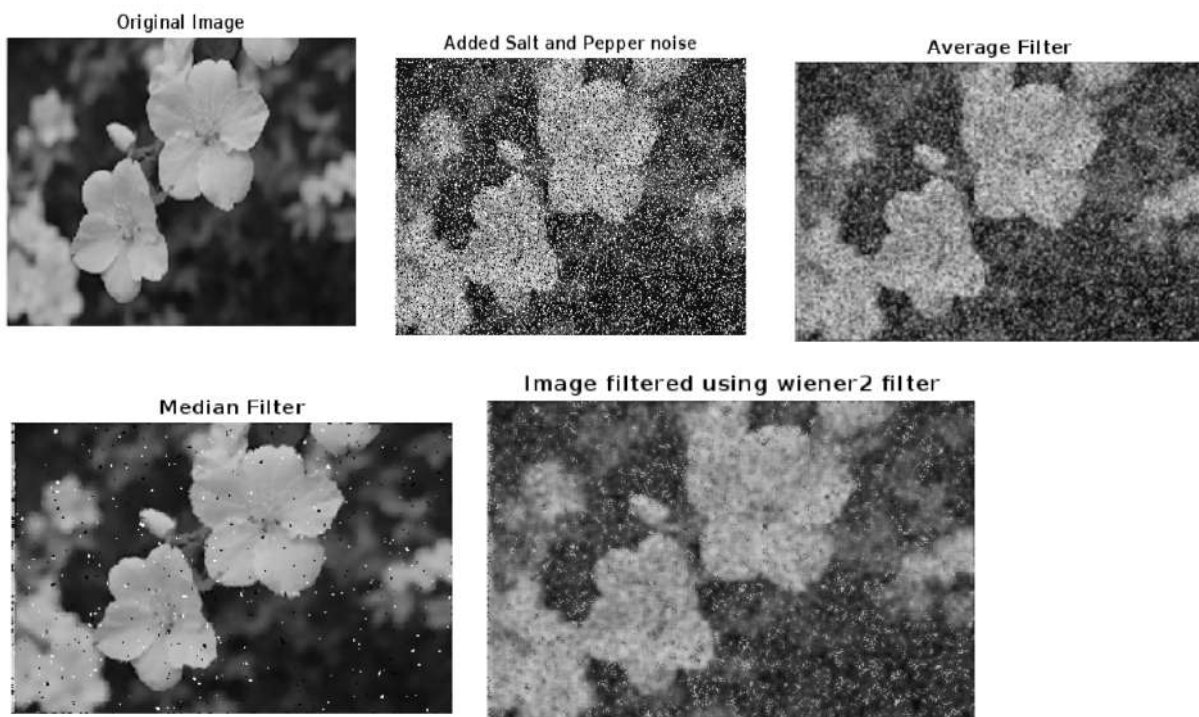


Image : [flower.png](#)

$D = 0.4$

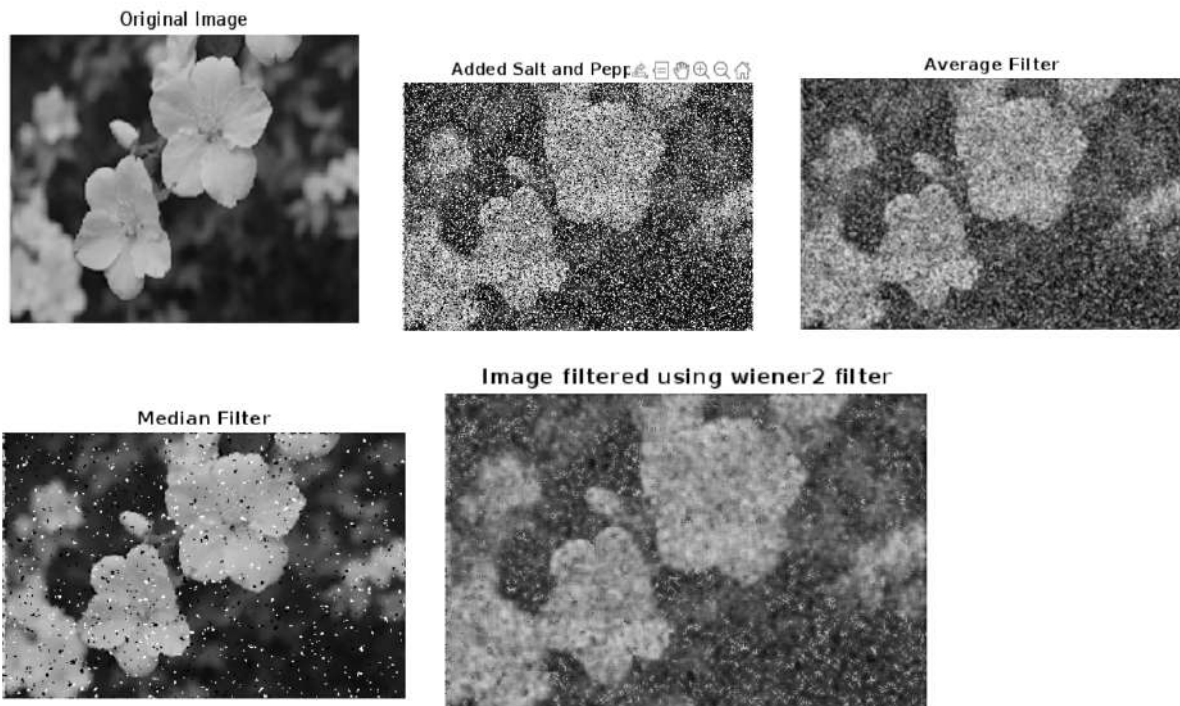





Image : [flower.png](#)

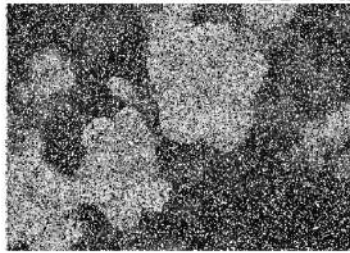
$D = 0.5$






Original Image



Added Salt and Pepp  



Average Filter  

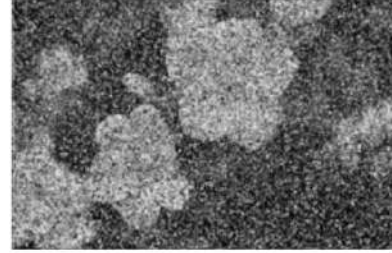
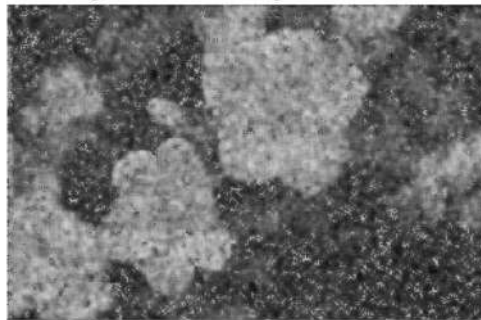


Image filtered using wiener2 filter



Median Filter

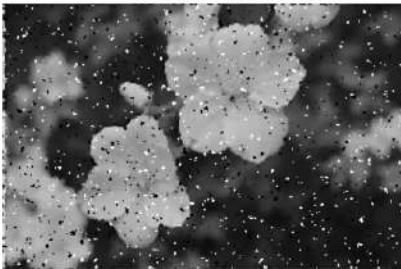





Image : [calc.bmp](#)

$D = 0.1$

Original Image



Added Salt and Pepp  



Average Filter  



Median Filter  



Image filtered using wiener2 filter



Image : [calc.bmp](#)

$D = 0.2$

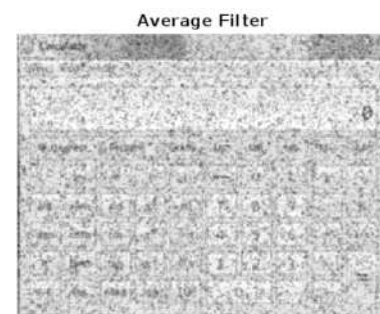
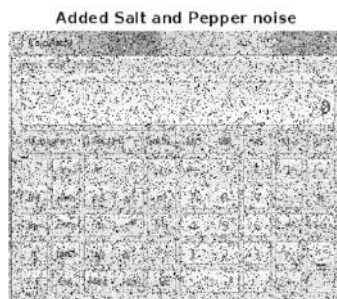


Image : [calc.bmp](#)

$D = 0.3$

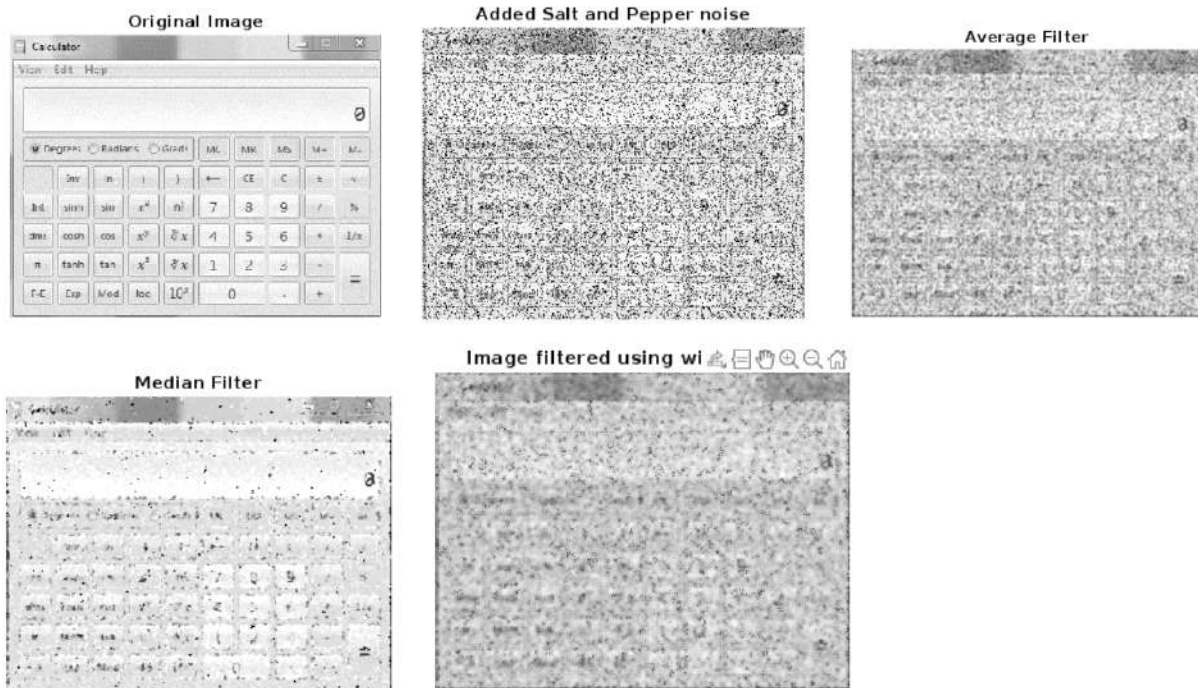


Image : [calc.bmp](#)

$D = 0.4$

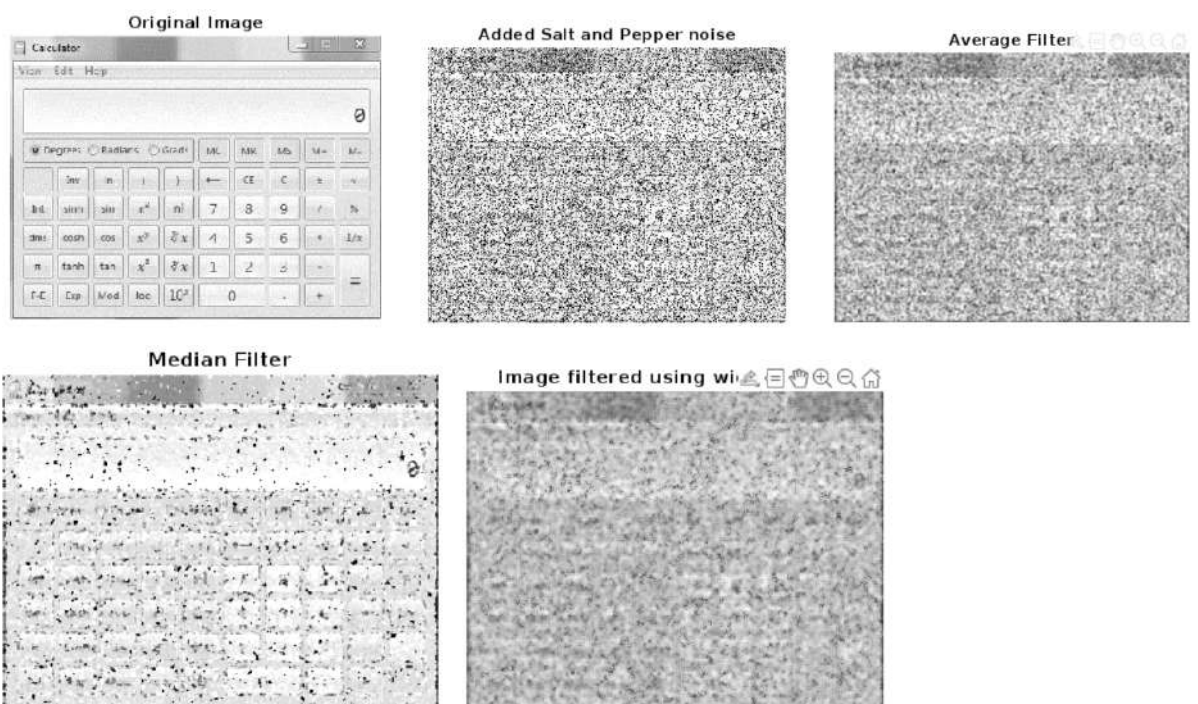




Image : [calc.bmp](#)

$D = 0.5$

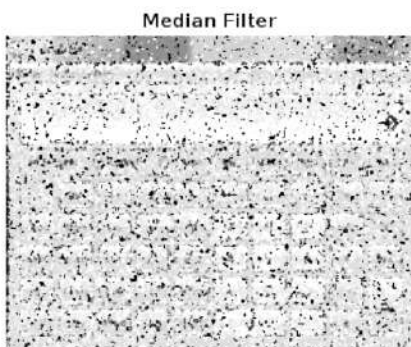
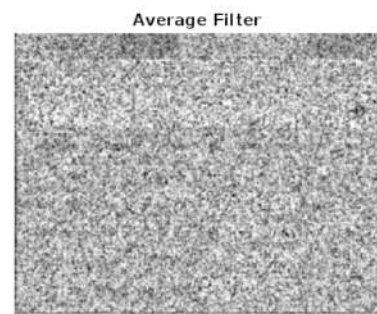
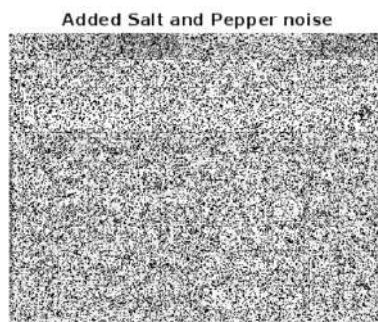


Image : [cameraman.png](#)

$D = 0.1$

Original Image



Added Salt and Pepper noise



Average 



Median 




Image filtered using 



Image : [cameraman.png](#)

$D = 0.2$

Added Salt and Pepper noise

Original Image



Average Filter



Image filtered using

Median Filter



Image : [cameraman.png](#)

$D = 0.3$





Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using



Image : [cameraman.png](#)

$D = 0.4$



Added Salt and Pepper noise



Image filtered using



Image : [cameraman.png](#)

$D = 0.5$



Added Salt and Pepper noise



Image filtered using



Image : [coin.png](#)

$D = 0.1$



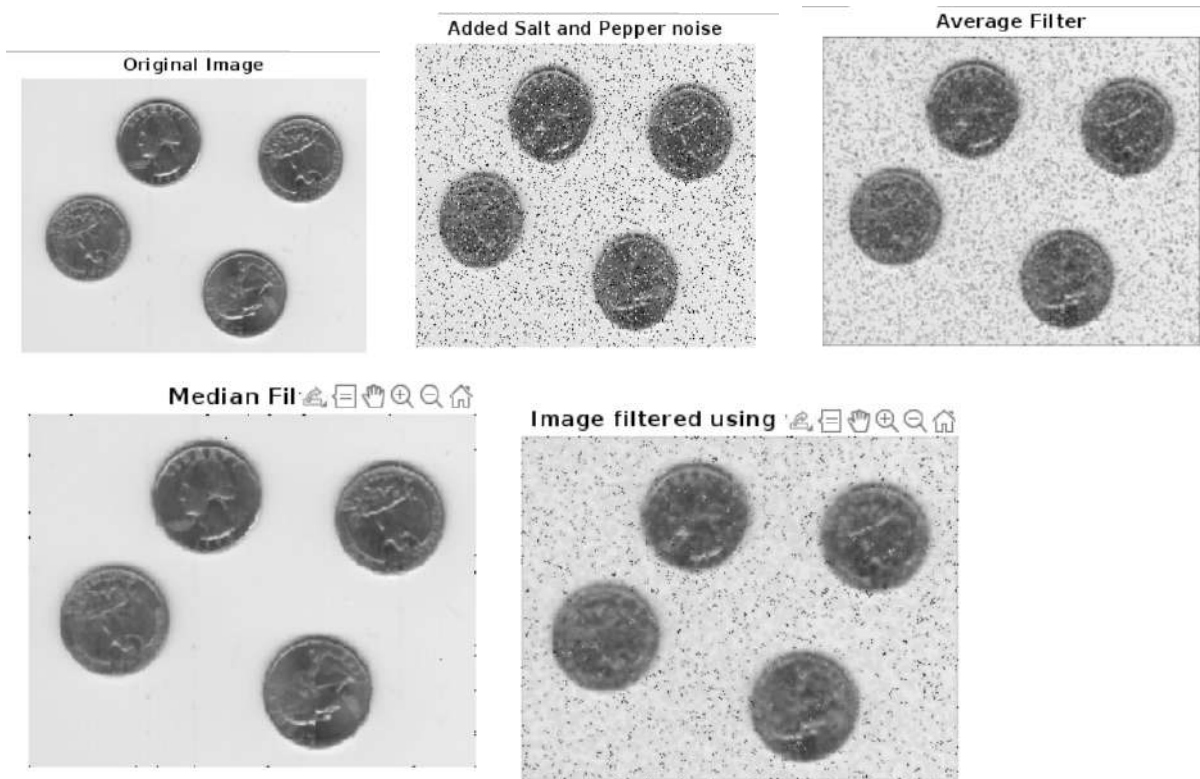


Image : [coin.png](#)

$D = 0.2$

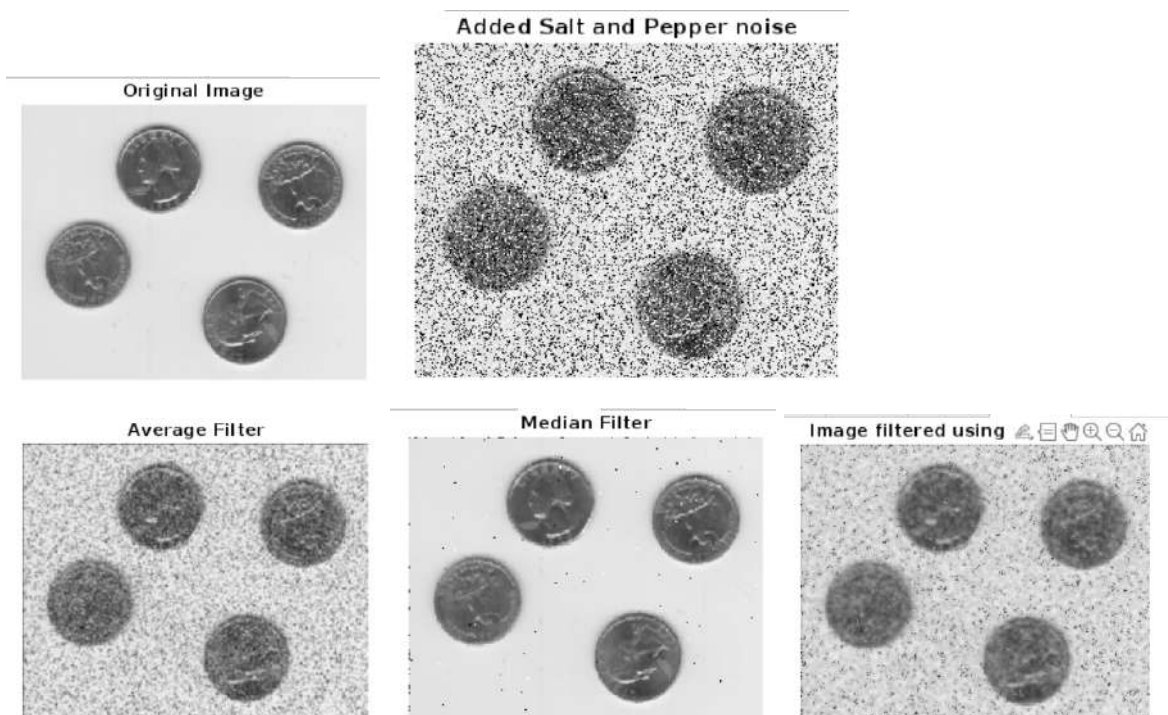


Image : [coin.png](#)

$D = 0.3$

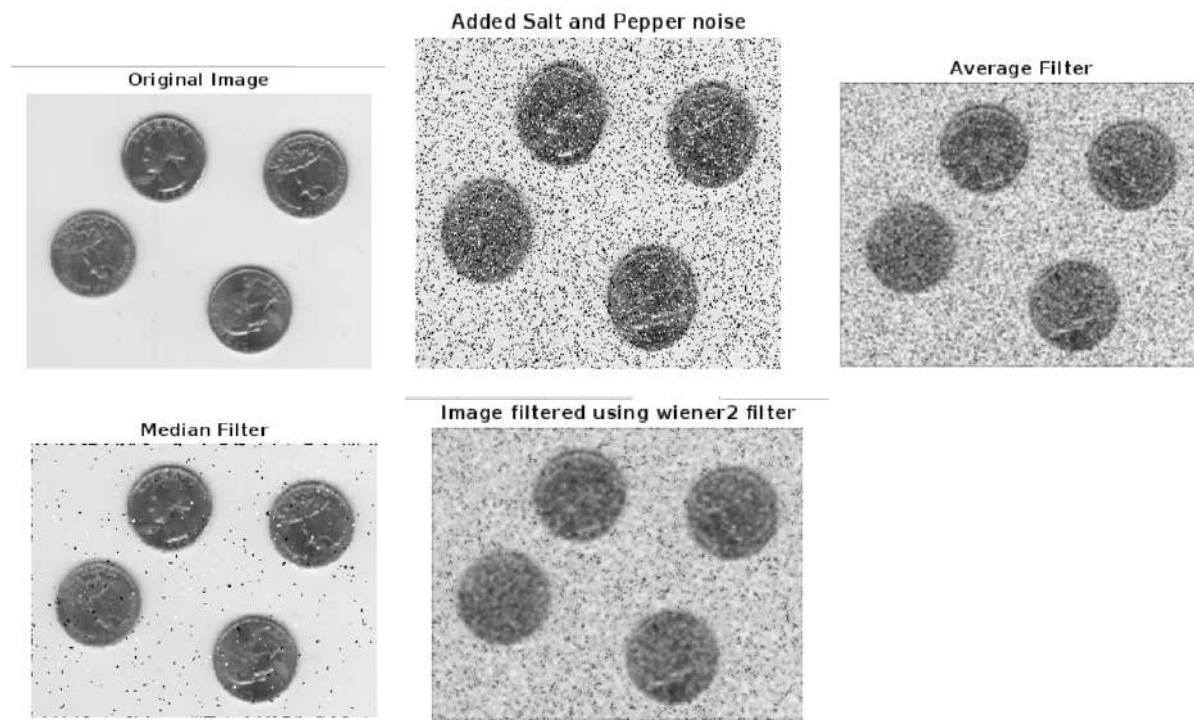


Image : [coin.png](#)

$D = 0.4$

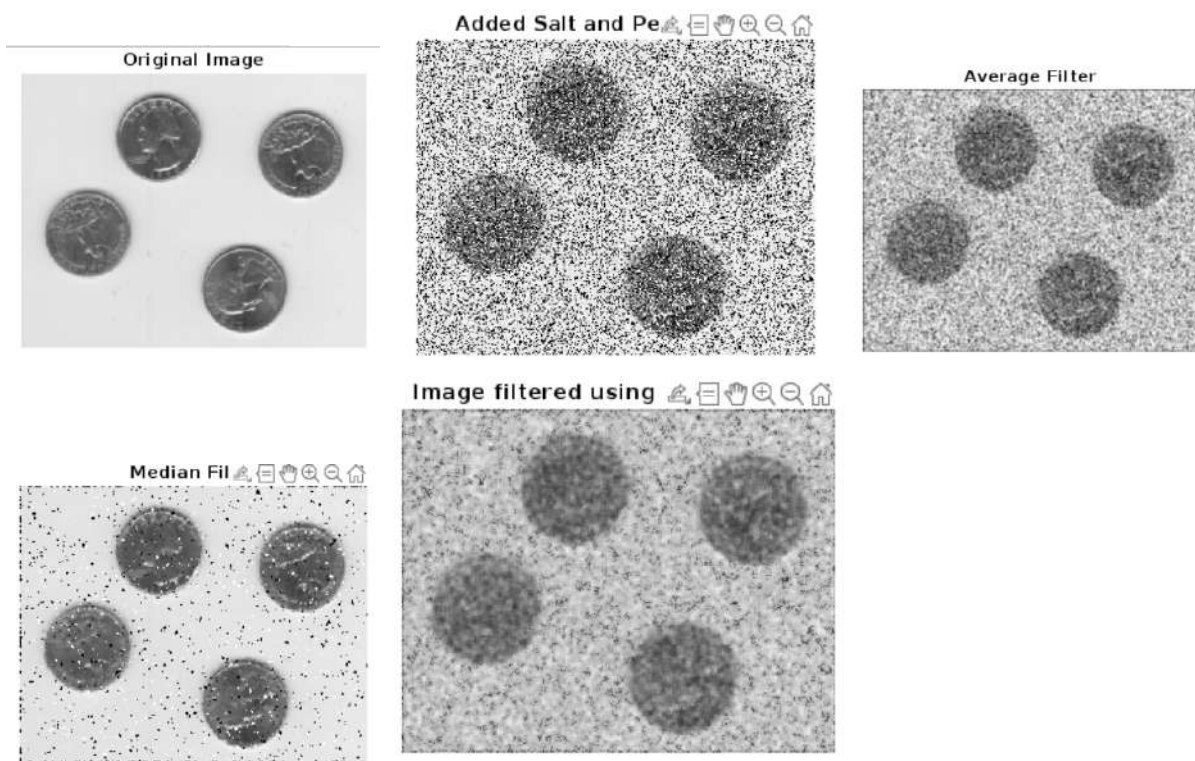


Image : [coin.png](#)

$D = 0.5$

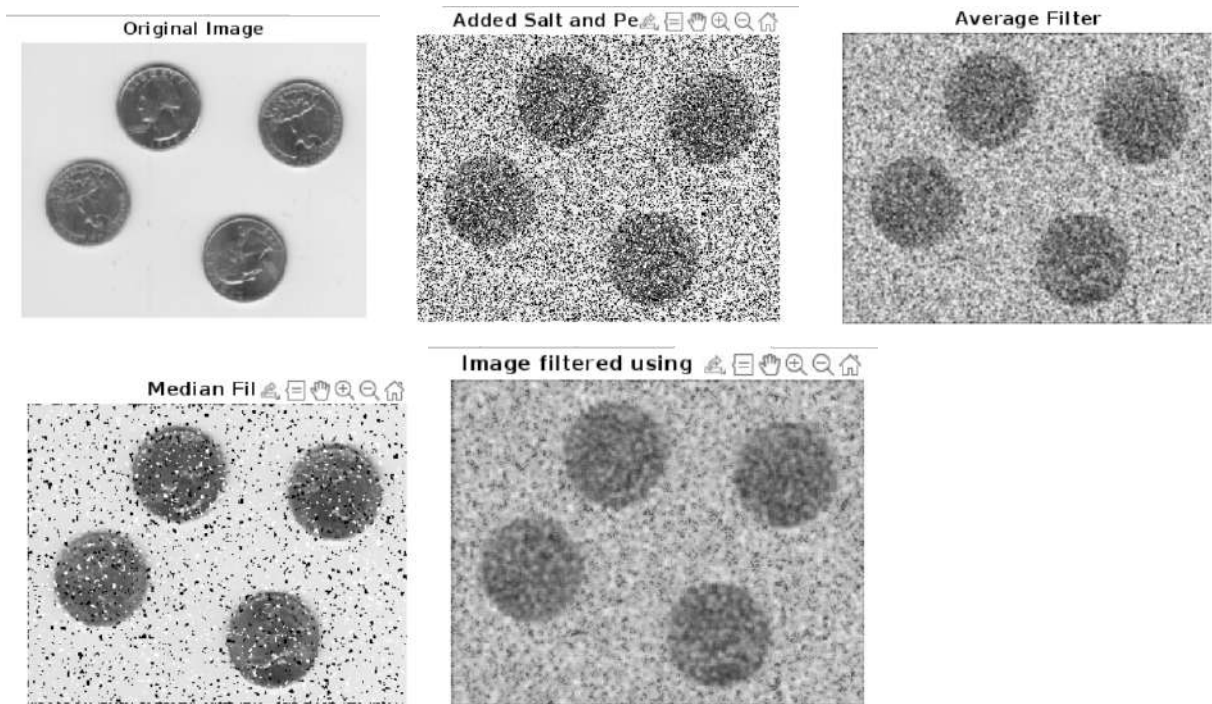




Image : [fruits.png](#)

$D = 0.1$

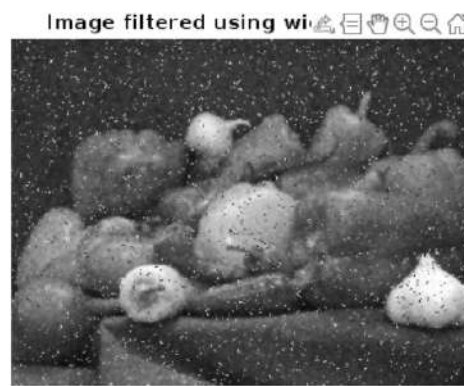
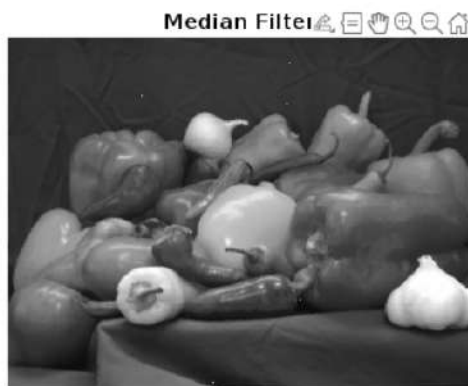
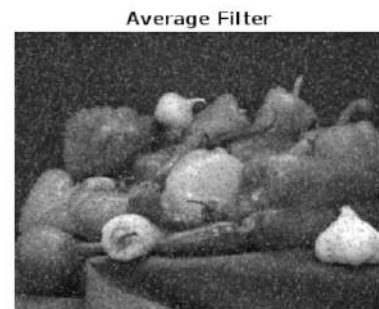
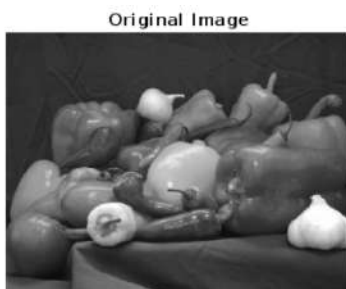


Image : [fruits.png](#)

$D = 0.2$

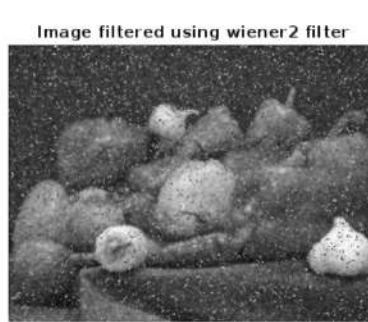
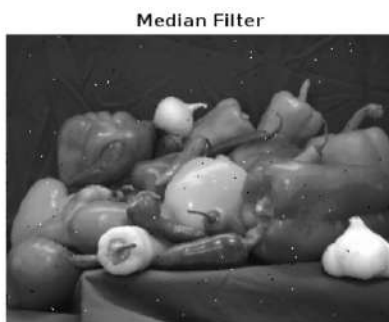
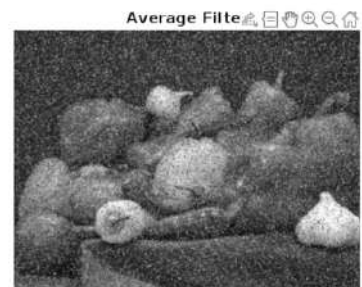
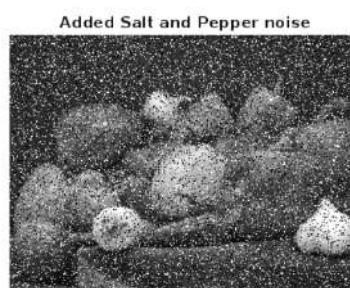
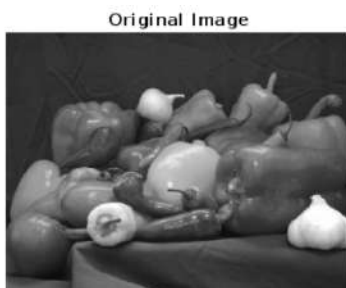


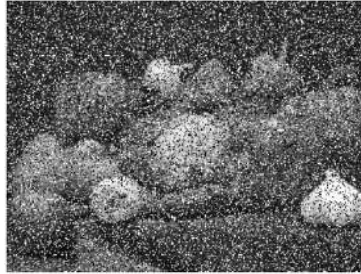
Image : [fruits.png](#)

$D = 0.3$

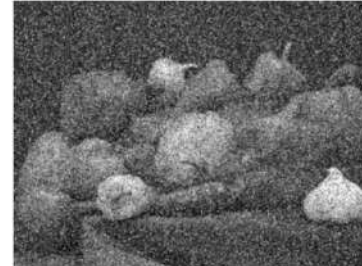
Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2

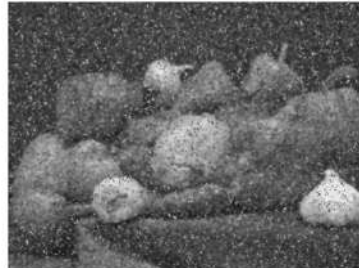


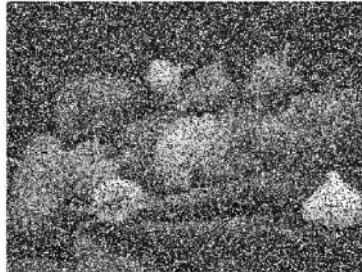
Image : [fruits.png](#)

$D = 0.4$

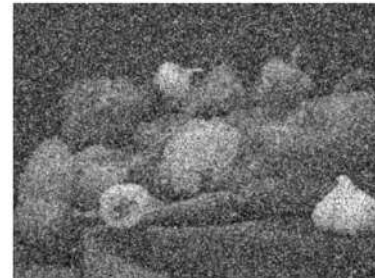
Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter

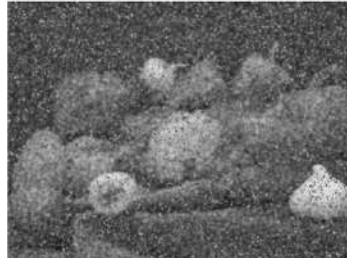


Image : [fruits.png](#)

D = 0.5

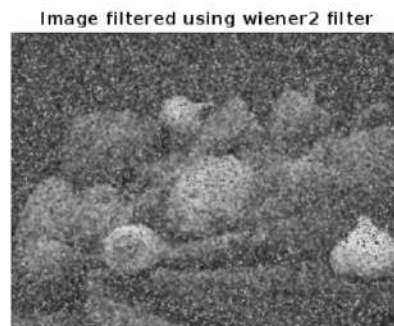
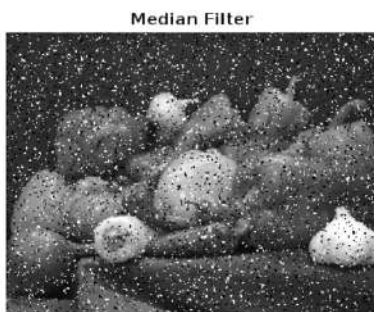
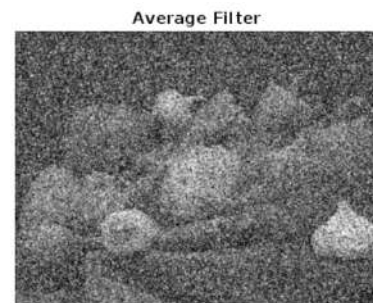
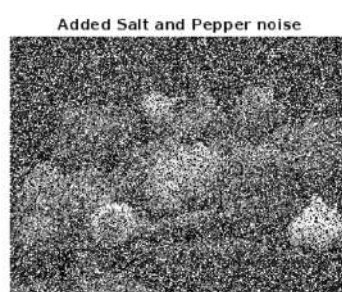
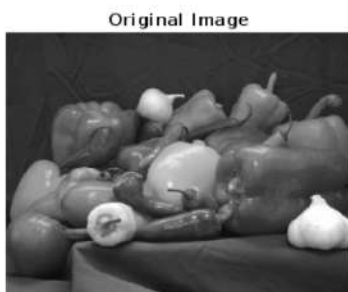


Image : [girl.png](#)

D = 0.1



Original Image



Added Salt and Pepper noise



Average     



Median f     



Image filtered using wiener2 filter



Image : [girl.png](#)

$D = 0.2$



Image : `girl.png`

$D = 0.3$

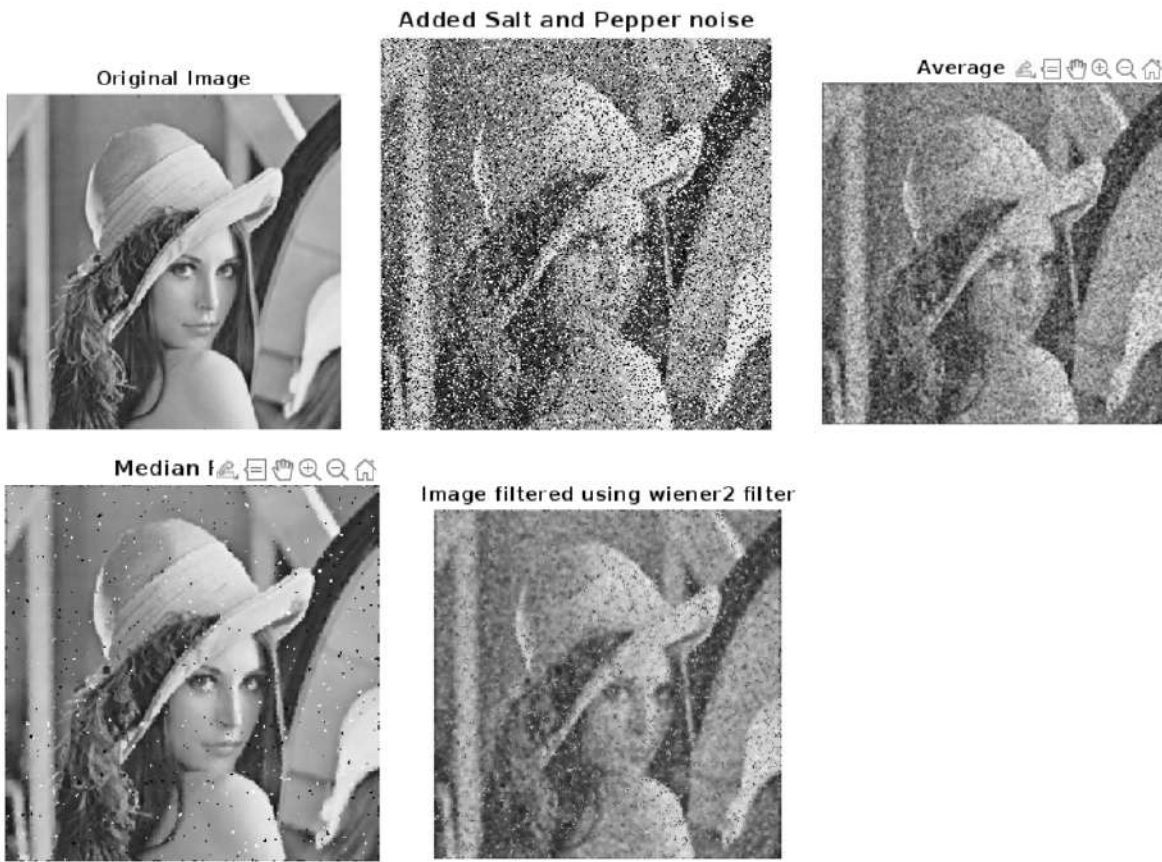


Image : `girl.png`

$D = 0.4$



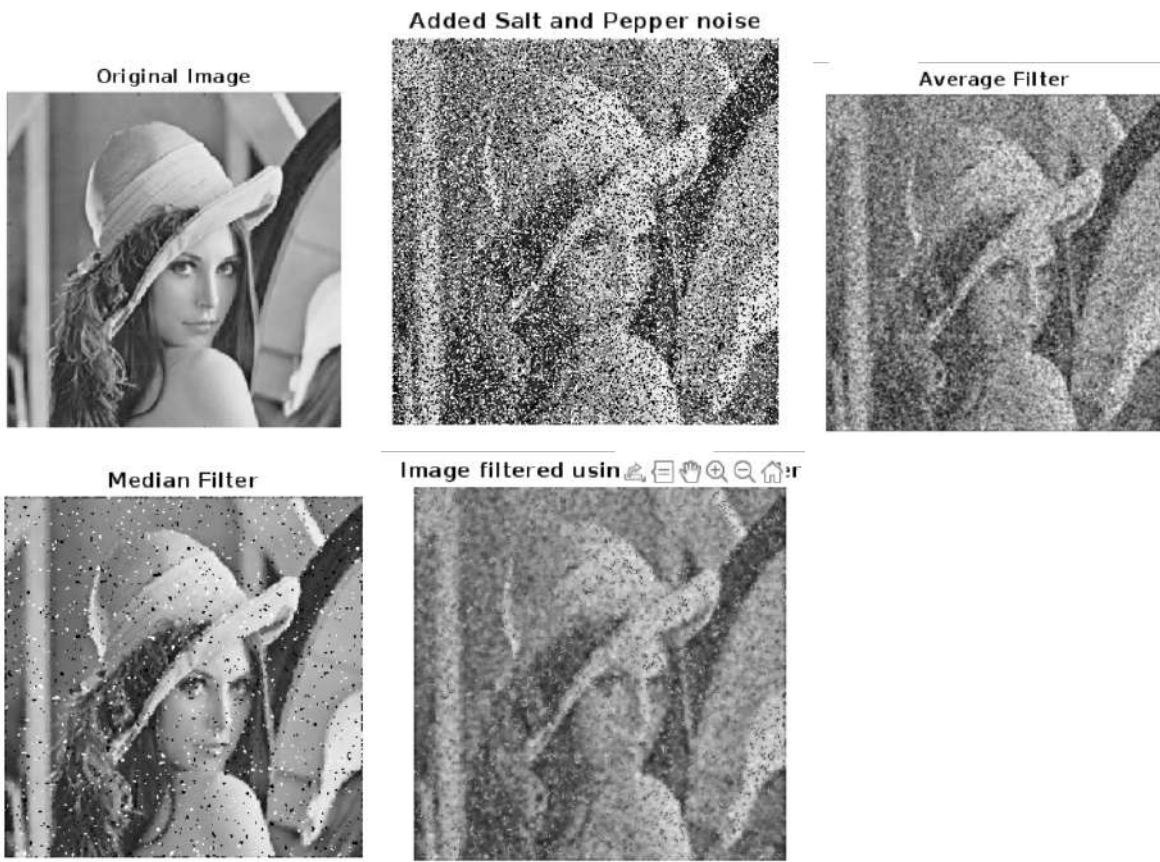


Image : [girl.png](#)

$D = 0.5$

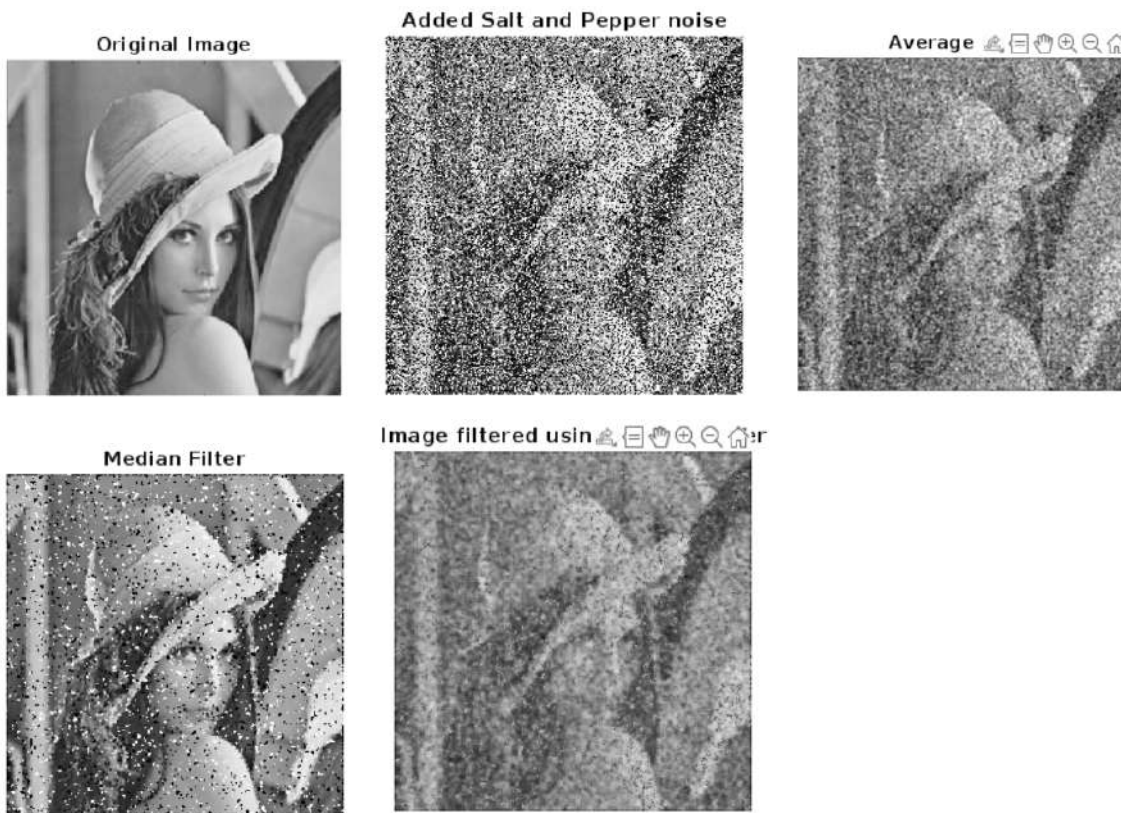


Image : [teddy.png](#)

$D = 0.1$

Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filters      r2 filter



Image : [teddy.png](#)

D = 0.2



Original Image



Added Salt and Pepper noise



Av 



Median Filter



Image filter  r2 filter



Image : [teddy.png](#)

D = 0.3

Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter

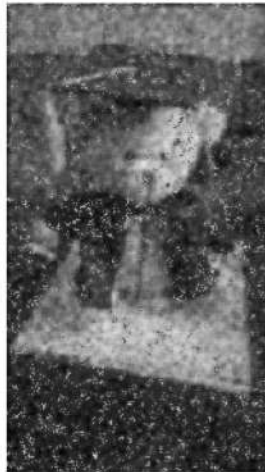


Image : [teddy.png](#)

$D = 0.4$

Original Image



Added Salt and Pepper noise



Average Filter



Median Filter



Image filtered using wiener2 filter

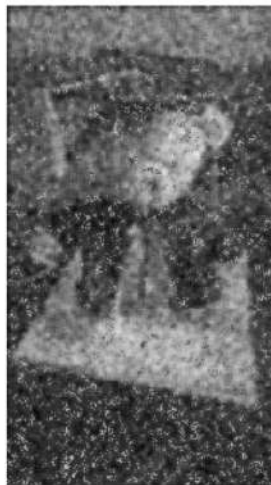


Image : [teddy.png](#)

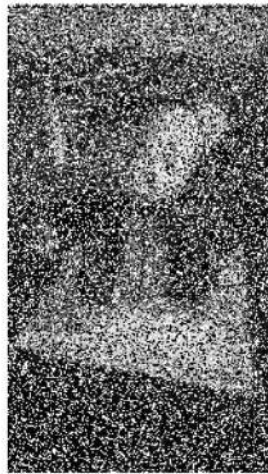
$D = 0.5$



Original Image



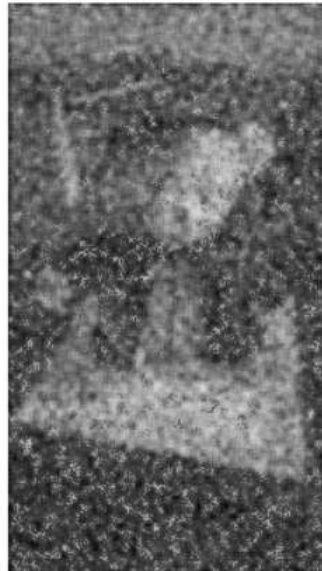
Added Salt and Pepper noise



Average Filter



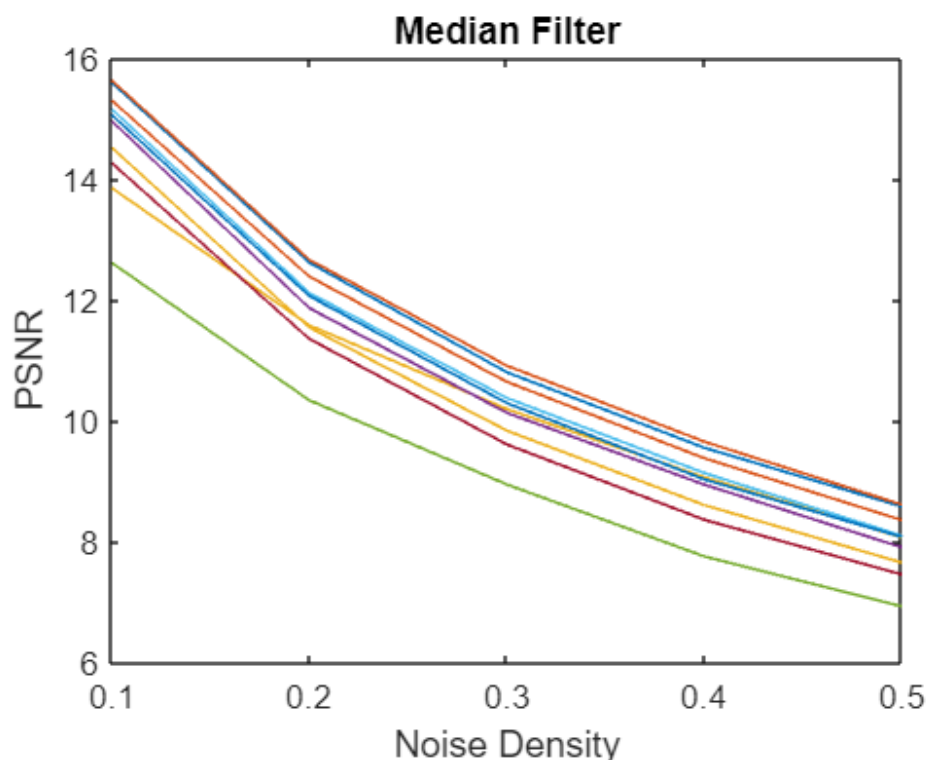
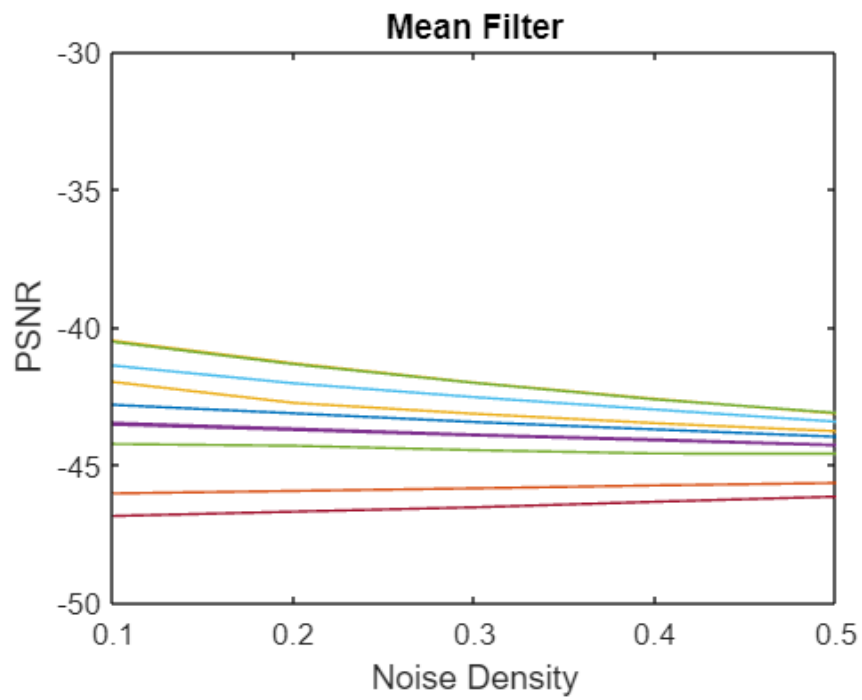
Image filtered using wiener2 filter

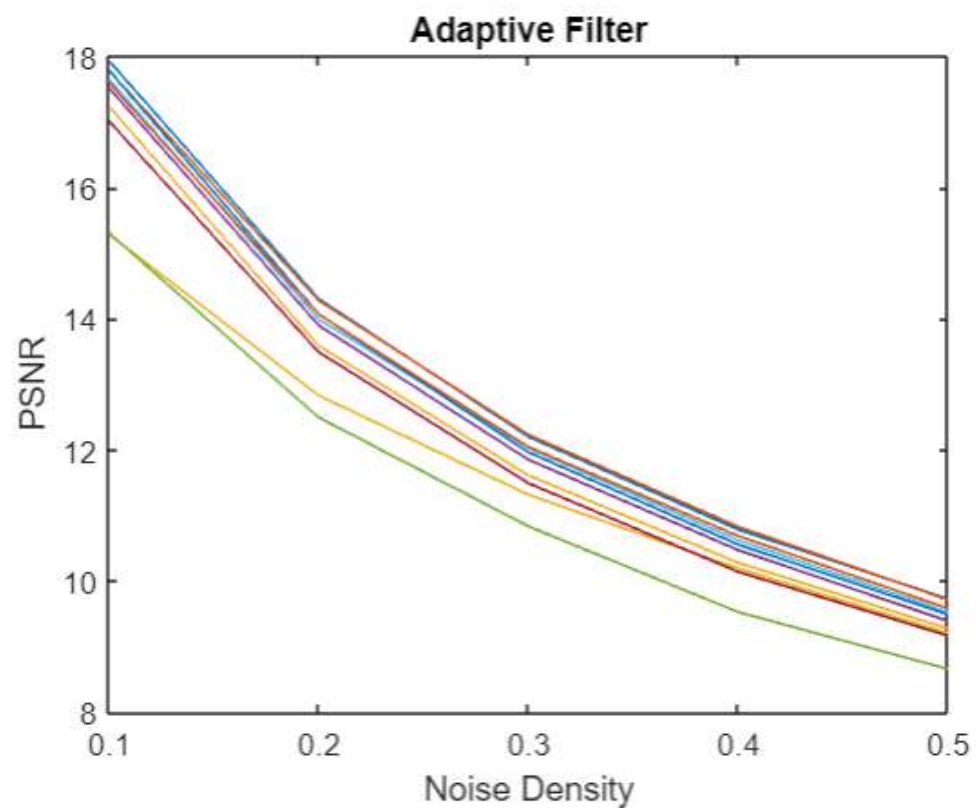


Median Filter



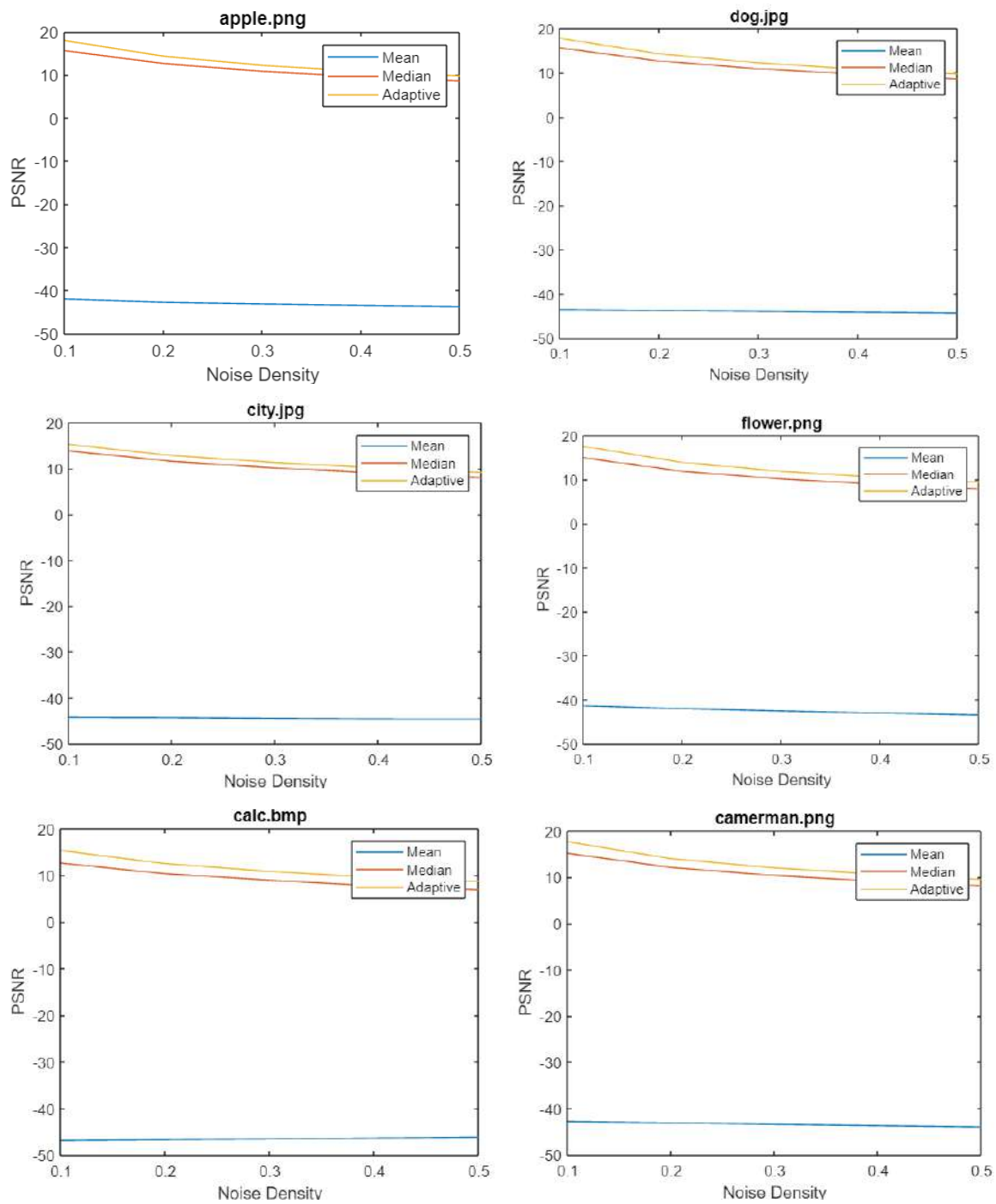
## PSNR vs Noise Density for Individual Filters

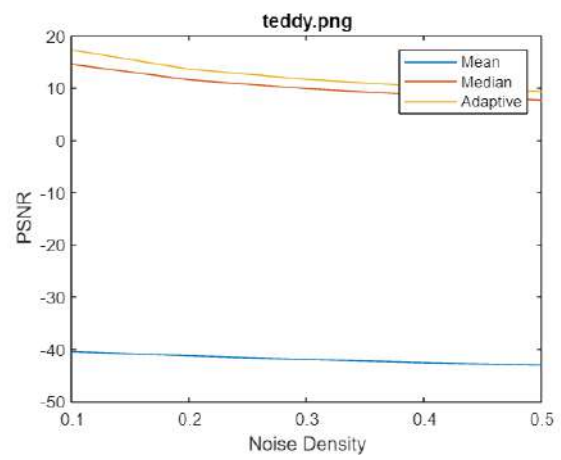
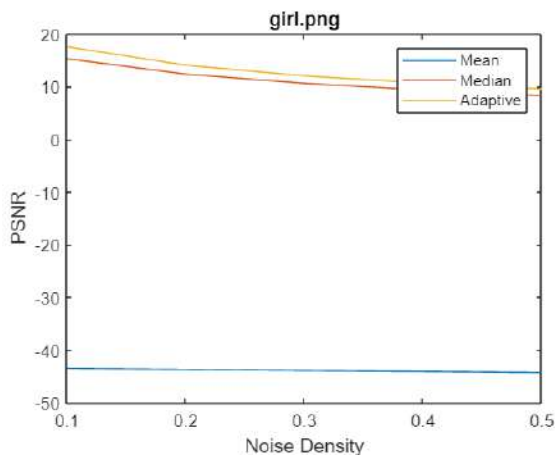
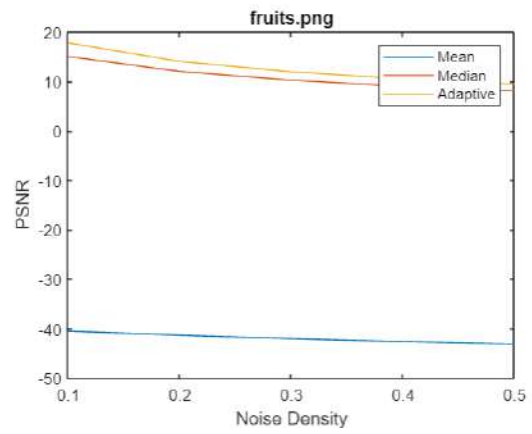
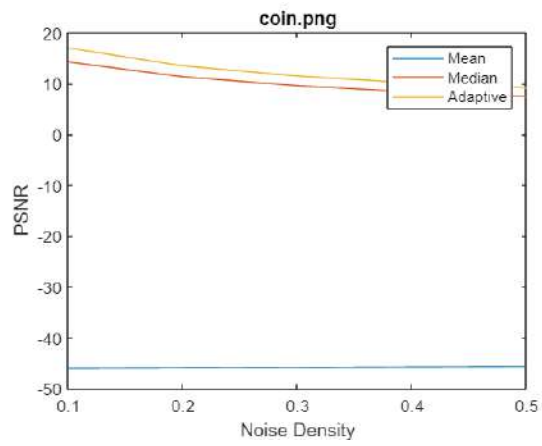




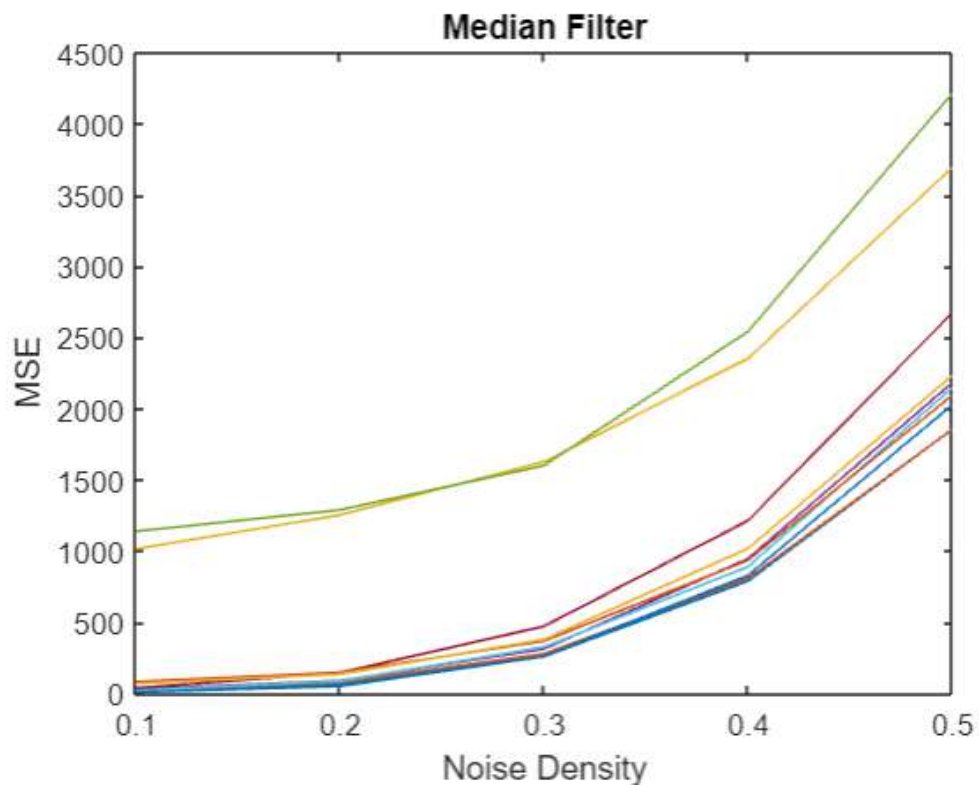
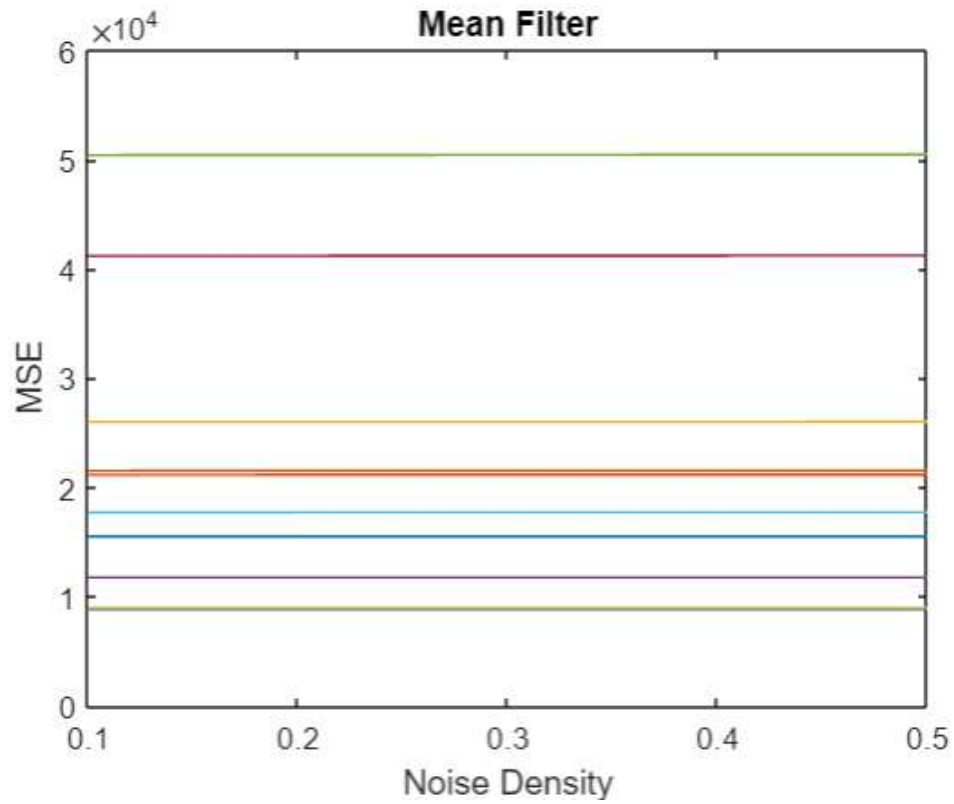


## PSNR vs Noise Density for Individual Images

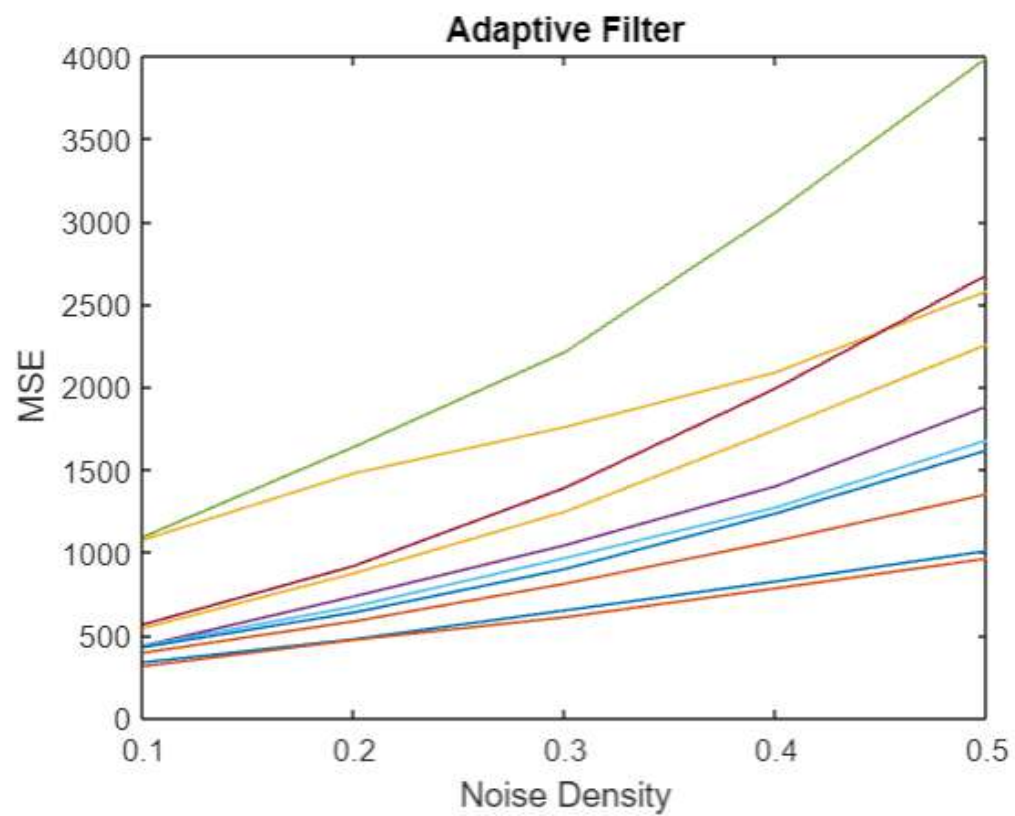




## MSE vs Noise Density for Individual Filters







## MSE vs Noise Density for Individual Images

