```
%Applying Edge Detection Techniques on Images
%-----------------------------------------------------------------

%
%
%Read an image
%_____________________________________________________
RBG = imread('random.jpg', 'jpg')
```

```
RBG = 1280×1280×3 uint8 array
RBG(:,:,1) =

   255   255   254   253   253   253   254   254   255   254   253   252   252   254   255   255   255   2
   255   255   254   253   253   253   254   254   255   254   253   252   253   254   255   255   254   2
   255   254   254   253   253   254   254   254   255   255   254   253   254   255   255   254   253   2
   254   254   254   253   253   254   254   255   255   255   254   254   254   255   255   254   252   2
   254   254   253   253   253   254   255   255   255   255   255   254   254   255   255   254   252   2
   254   254   253   253   254   254   255   255   255   255   255   254   254   255   255   254   253   2
   254   253   253   253   254   255   255   255   255   255   254   253   254   255   254   253   254   2
     ⋮
```

```
%Convert it to grayscale
%_____________________________________________________
I = rgb2gray(RBG)
```

```
I = 1280×1280 uint8 matrix
   235   235   234   233   233   233   234   234   235   234   233   232   232···
   235   235   234   233   233   233   234   234   235   234   233   232   233
   235   234   234   233   233   234   234   234   235   235   234   233   234
   234   234   234   233   233   234   234   235   235   235   234   234   234
   234   234   233   233   233   234   235   235   235   235   235   234   234
   234   234   233   233   234   234   235   236   235   235   235   234   234
   234   233   233   233   234   235   235   236   235   235   234   233   234
   234   233   233   233   234   235   236   236   235   235   234   233   233
   233   233   234   234   235   235   235   235   236   235   234   233   233
   233   233   234   234   234   235   235   235   235   234   234   233   233
     ⋮
```

```
%
%Edge Detection
%_____________________________________________________________________
%Sobel mask

subplot(2,2,1), imshow(~edge(I, 'sobel'))
title('Sobel')
subplot(2,2,2),imshow(I)
title('Original')
```


```
figure
%_____________________________________________________________________

%Prewit
subplot(2,2,1), imshow(~edge(I, 'prewitt'))
title('Prewitt')
subplot(2,2,2),imshow(I)
title('Original')
```


```
figure
%_____________________________________________________________________

%Roberts
subplot(2,2,1), imshow(~edge(I, 'roberts'))
title('Robert')
subplot(2,2,2),imshow(I)
title('Original')
```


```
figure
%_____________________________________________________________________________
```