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Edge Detection

Detection edge of a image using different edge detection method.

Read image from the link

```
rgb = imread('C:\Users\nishi_000\Desktop\Extra\simul2.jpg');
```

Convert RGB to Grayscale

```
a = rgb2gray(rgb);
```

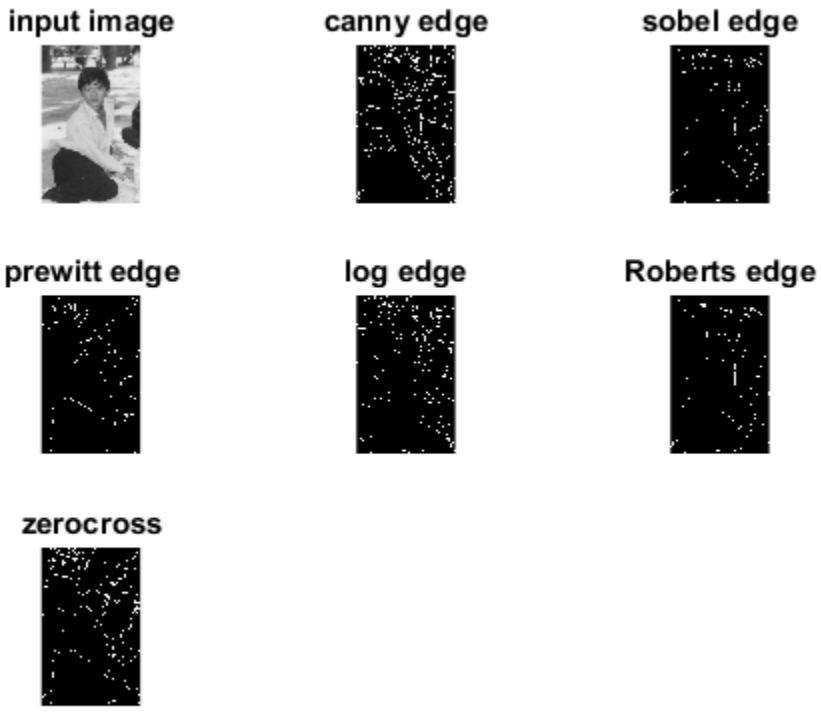
Detecting Edge using different operator : edge() method hass been use for detecting age. It takes two parameter.A gray scale image and a operator. There six different kinds of oparetor is used in this image. Here canny operator give the best result for edge detection of a image. Because its give good result with the both normal and noisy image. others are sensitive to noisy images.

```
b = edge(a, 'canny');
c = edge(a, 'sobel');
d = edge(a, 'prewitt');
e = edge(a, 'log');
f = edge(a, 'Roberts');
g = edge(a, 'zerocross');
```

*Show image to a 3*3 grid*

```
subplot(3,3,1);
imshow(a);
title('input image');

subplot(3,3,2);
imshow(b);
title('canny edge');

subplot(3,3,3);
imshow(c);
title('sobel edge');

subplot(3,3,4);
imshow(d);
title('prewitt edge');

subplot(3,3,5);
imshow(e);
title('log edge');

subplot(3,3,6);
imshow(f);
title('Roberts edge');
```

```
subplot(3,3,7);
imshow(g);
title('zerocross');
```



Algorithm Performance : Edge detection is a basic tool used in image processing, basically for feature detection and extraction, which aim to identify points in a digital image where brightness of image changes sharply and find discontinuities. The purpose of edge detection is significantly reducing the amount of data in an image and preserves the structural properties for further image processing.

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