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**HomeWork 6**

**6.a**

function rbg2grayscale(image)

I = imread(image);

red = I(:,:,1);

green = I(:,:,2);

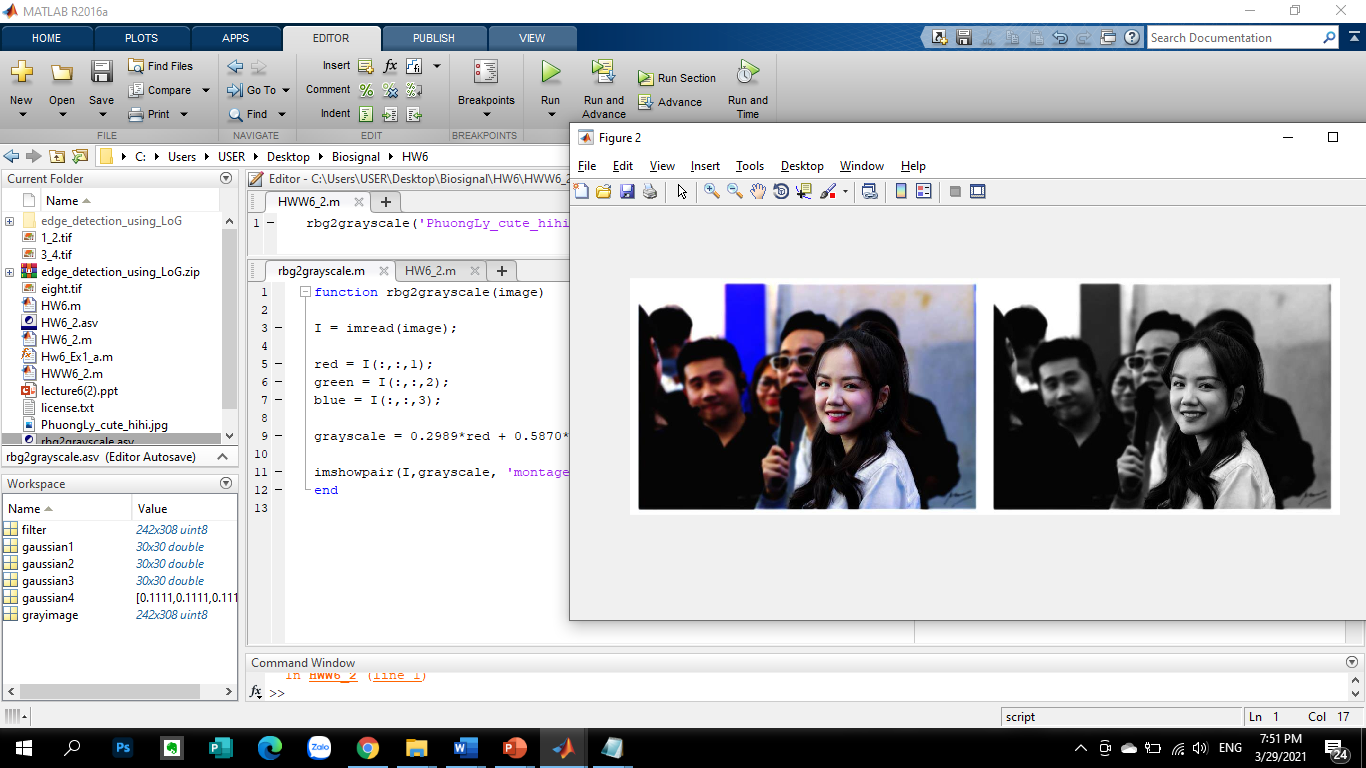
blue = I(:,:,3);

grayscale = 0.2989\*red + 0.5870\*green + 0.1140\*blue;

imshowpair(I,grayscale, 'montage');

end

rbg2grayscale('PhuongLy\_cute\_hihi.jpg')



**6.b**

grayimage = imread('eight.tif');

figure(1);

subplot(2,3,2);

imshow(grayimage);

gaussian1 = fspecial('Gaussian',30,90);

filter = conv2(double(grayimage), gaussian1, 'same');

filter = uint8(filter);

subplot(2,3,4);

imshow(filter);

gaussian2 = fspecial('Gaussian', 30, 1);

filter = conv2(double(grayimage), gaussian2, 'same');

filter = uint8(filter);

subplot(2,3,5);

imshow(filter);

gaussian3 = gaussian1 - gaussian2;

filter = conv2(double(grayimage), gaussian3, 'same');

filter = uint8(filter);

subplot(2,3,6);

imshow(filter);

gaussian4 = fspecial('Average',3);

filter = conv2(double(grayimage), gaussian4, 'same');

filter = uint8(filter);

figure(2);

imshowpair(grayimage,filter,'montage');

