

KENNESAW STATE U N I V E R S I T Y

CS 4732
MACHINE VISION

PROJECT 1
IMAGE RESOLUTION

<u>INSTRUCTOR</u>

Dr. Sanghoon Lee

Your Name:

KSU ID: 000123456

1. ABSTRACT

In this project
2. TEST RESULTS
2. TEST RESULTS 2.1 Test Results for Image Negative
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2.1 Test Results for Image Negative Figure 1(a),

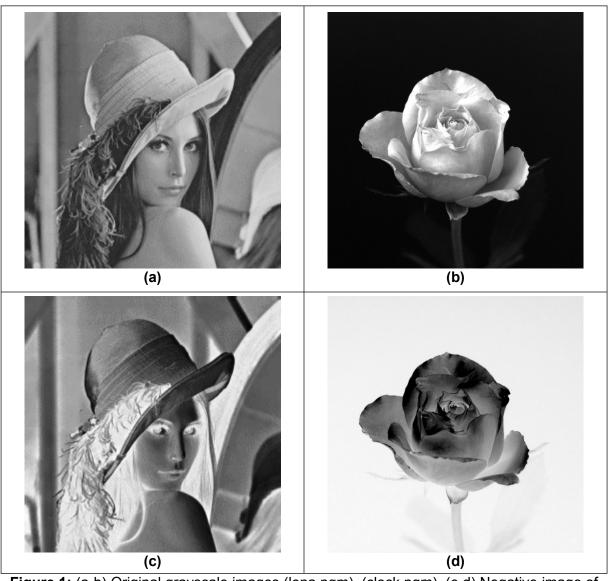


Figure 1: (a-b) Original grayscale images (lena.pgm), (clock.pgm), (c-d) Negative image of original grayscale images.

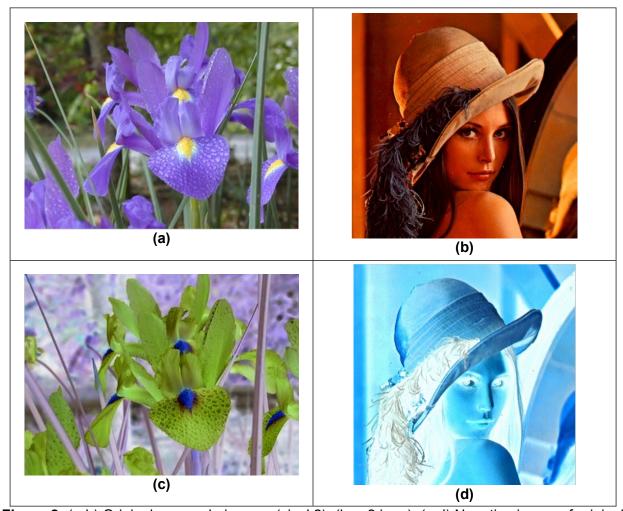


Figure 2: (a-b) Original grayscale images (cicek2), (lena2.jpeg), (c-d) Negative image of original grayscale images.

2.2 Test Results for image opside-down

3. CODES

3.1 Code for Image Negative

```
% Name:
% KSU Number:
% Project 1
close all;
clear;
clc;
% read the input image as input image
inimage = imread(flower.jpg');
% Show input image
figure, imshow(inimage,[]);
% Get the size of input image
[row,col,chan] = size(inimage);
% Predefine the output image
outimage = zeros(row, col,chan);
% Compute the effect pixel by pixel
for y = 1:1:row
    for x = 1:1:col
        for z=1:chan
            % Get the negative of the pixel value
            outimage (y, x, z) = 255 - inimage(y, x, z);
        end
    end
end
% Change the image format to uint8 before saving the result.
outimage = uint8(outimage);
% Show output image
figure (2), imshow (outimage, []);
% Save the output image as image file.
imwrite(outimage, 'output.jpg', 'jpeg');
```

3.2 Code for Image Upside-Down

```
% Name:
% KSU Number:
% Project 1
close all;
clear;
clc;
% read the input image as input image
inimage = imread('lena.jpg');
% Show input image
figure,imshow(inimage,[]);
% Get the size of input image
[row,col,chan] = size(inimage);
% Predefine the output image
```

```
outimage = zeros(row, col,chan);
% Compute the effect pixel by pixel
for y = 1:1:row
    for x = 1:1:col
        for z=1:chan
            % Get the upside down image
            outimage(y,x,z) = inimage(row-y+1,x,z);
        end
    end
end
% Change the image format to uint8 before saving the result.
outimage = uint8(outimage);
% Show output image
figure(2),imshow(outimage,[]);
\ensuremath{\%} Save the output image as image file.
imwrite(outimage, 'output.jpg', 'jpeg');
```