Indian Institute of Information Technology, Nagpur

Digital Image Processing
Lab Report

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```
clc; close all; clear ;

image = imread('C:Nehal.jpg');

figure(1)

histogram(image)

image1 = histeq(image);

figure(2)

subplot(1,2,1)

imshow(image)

subplot(1,2,2)

imshow(image1)
```

```
clc;
clear ;
close all;
Image = imread('C:Nehal.png');
figure(1)
subplot(2,2,1)
```

$\text{Image}_bw = rgb2gray(Image);$

```
imshow(Image_bw);
title('Black and White')
subplot(2,2,2)
```

$\text{image}_r = Image;$

$\text{image}_r(:,:,2) = 0;$

$\text{image}_r(:,:,3) = 0;$

```
imshow(image_r)
title('Red')
subplot(2,2,3)
```

$\text{image}_g = Image(:,:,:);$

$\text{image}_g(:,:,3) = 0;$

$\text{image}_g(:,:,1) = 0;$

```
imshow(image_g)
title('Green')
subplot(2,2,4)
```

$\text{image}_b = Image;$

$\text{image}_b(:,:,2) = 0;$

$\text{image}_b(:,:,1) = 0;$

```
imshow(image_b)
title('Blue')
```

figure(2)

[a,b] = size(Image);

I = zeros(a,b,8);

for i=1:a

for j = 1:b

I(i,j,:) = de2bi(Image(i,j),8,'left-msb');

end

end

$Image_comp = I(:,:,1) + I(:,:,2) + I(:,:,3) + I(:,:,4) + I(:,:,5) + I(:,:,6) + I(:,:,7) + I(:,:,8);$

subplot(1,2,1)

imshow($Image_bw$)

title('Uncompressed Image')

subplot(1,2,2)

imshow($Image_comp$)

title('Compressed Image')