EE5351\_DIGITAL VIDEO CODING

DIGITAL WATER MARKING ASSIGNMENT

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MATLAB PROGRAM:

clc;

close all;

clear all;

lenaimage=imread('lena512.bmp');

uta\_logo=imread('uta\_logo.gif');

vis\_logo=lenaimage;

alpha=[.25,.5,.75,1];

figure;

for i=1:4

Visible=((1-alpha(i)).\*abs(lenaimage(425:512,213:512)))+(alpha(i).\*uta\_logo);

vis\_logo(425:512,213:512)=Visible;

Ret\_logo= (vis\_logo-((1-alpha(i))\*lenaimage))./alpha(i);

subplot(2,4,i);

imshow(vis\_logo);

title({'IMAGE FOR RVC= ',num2str(alpha(i))});

subplot(2,4,i+4);

imshow(Ret\_logo(425:512,213:512),[]);

title({'IMAGE FOR RVC= ',num2str(alpha(i))});

end

inv\_logo=lenaimage;

Invisible=(4\*uint8(lenaimage(425:512,213:512)/4))+(uta\_logo/64);

inv\_logo(425:512,213:512)=Invisible;

fid=fopen('C:\Users\WATER\Desktop\d\_watermarkimage.img','w');

fwrite(fid,inv\_logo);

fid=fopen('dec\_image.img');

Dec=fread(fid);

Dec=double(reshape(Dec,512,512));

r\_logo=(uint8(Dec)-uint8(lenaimage))\*64;

figure;

subplot(2,2,1);

imshow(lenaimage);

title('ACTUAL IMAGE OF LENA');

subplot(2,2,2);

imshow(uta\_logo);

title('ACTUAL IMAGE OF UTA LOGO');

subplot(2,2,3);

imshow(inv\_logo);

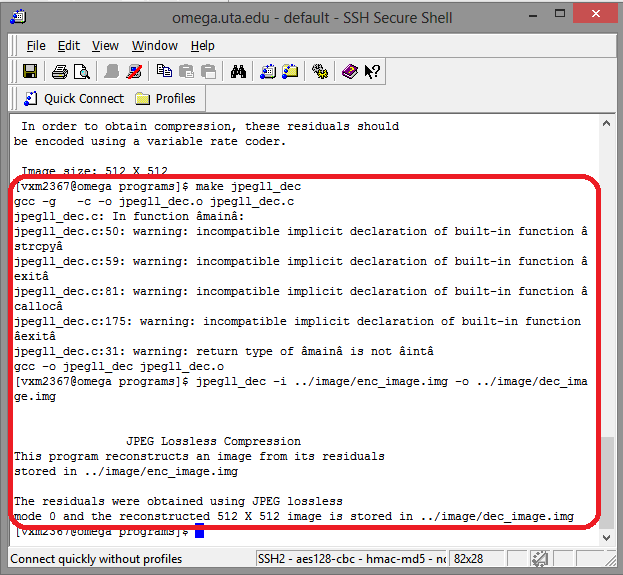
title('IMAGE OF DIGITAL INVISIBLE WATERMARK');

subplot(2,2,4);

imshow(uint8(r\_logo(425:512,213:512)));

title('RETRIVED LOGO FROM INVISIBLE WATERMARK');

OMEGA SERVER:

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OUTPUT:

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