clc

clear all

close all

[filename,pathname]=uigetfile('\*.avi');

str2='.jpg';

file=aviinfo(filename); % to get inforamtaion abt video file

frm\_cnt=file.NumFrames ; % No.of frames in the video file

for i=1:frm\_cnt

frm(i)=aviread(filename,i); % read the Video file

frm\_name=frame2im(frm(i));

% frm\_name=rgb2gray(frm\_name); % Convert Frame to image file

filename1=strcat(strcat(num2str(i)),str2);

imwrite(frm\_name,filename1);

end

%fprintf('Please wait....');

filebase = dir('\*.jpg'); % If you are using a continous frame of images, start from here.

num\_files = numel(filebase);

images = cell(1, num\_files);

AS=cell(1,num\_files);

for k = 1:num\_files

images{k} = imread(filebase(k).name);

[rows columns color]=size(images{1});

if (color==3)

AS{k}=rgb2hsv(images{k});

A(k)=im2frame(AS{k});

else

AS{k}=gray\_level\_images(images{k});

end

end

MS=cell(1,num\_files);

for j=1:frm\_cnt

filename\_1=strcat(strcat(num2str(j)),str2);

X=imread(filename\_1);

S=size(X);

k=1;

l=1;

for m=1:S(1)

for n=1:S(2)

if X(m,n)<=60

% X(m,n)=0;

Y(k,l)=X(m,n);

end

end

end

for k=1:frm\_cnt

cimg=strcat(num2str(k),str2);

v=imread(cimg);

[Y, map] = rgb2ind(v,255);

F(:,:,k)=im2frame(flipud(Y),map);

end

end

for k = 1:num\_files

images{k} = imread(filebase(k).name);

[rows columns color]=size(images{1});

if (color==3)

MS{k}=image\_enhancement\_sw(images{k});

M(k)=im2frame(MS{k});

else

MS{k}=gray\_level\_images(images{k});

end

end

%movie(M)

mov=aviread(filename);

%movie(mov)

%figure;

%movie(F)

[h, w, p] = size(mov(1).cdata);

hf = figure;

set(hf, 'position', [150 150 w h]);

movie(gcf,mov);

[h, w, p] = size(A(1).cdata);

hf = figure;

set(hf, 'position', [150 150 w h]);

movie(gcf,A);

[h, w, p] = size(M(1).cdata);

hf = figure;

set(hf, 'position', [150 150 w h]);

movie(gcf,M);

input\_file\_size = frm\_cnt \* size(frm(1).cdata,1)\* size(frm(1).cdata,2) \* size(frm(1).cdata,3)

%output\_file\_size=frm\_cnt \* size(F(1).cdata,1)\* size(F(1).cdata,2) \* size(F(1).cdata,3)

mse=(sum(mov(1).cdata(:,:,1)-F(1).cdata).\*sum(mov(1).cdata(:,:,1)-F(1).cdata))/input\_file\_size

psnr=20\*log10(255/sqrt(min(mse)))