

```

clc;

clear all;

close all;

% Read files form pc.

[FileName,PathName] = uigetfile('./Input_Image/*.tif;*.jpg;*.png;*.bmp',...
                                'Select an Input Image File');

[file_path,name,ext] = fileparts(FileName);

info = imfinfo([PathName '\' FileName]);

W = info.Width;

H = info.Height;

% Input Image Read

In_Img = (imread([PathName '\' FileName]));

figure;

imshow(In_Img);

% title('Input Image');

title(sprintf('Input Image Size %d X %d ',H,W));


[rows, columns, no_of_band] = size(In_Img);

if isequal (no_of_band,3)

    % Convert it to gray scale

    gray = rgb2gray(In_Img);

else

    gray = In_Img;

end

figure;

imshow(gray);

title('Gray Image');

```

```

% Filter - Preprocessing
InImg = gray;
Gs=fspecial('gaussian');
[rows1, columns1, no_of_band1] = size(InImg);
if isequal (no_of_band1,3)
    % Convert it to gray scale
    In_fil(:, :, 1)=medfilt2(double(InImg(:, :, 1)));
    In_fil(:, :, 2)=medfilt2(double(InImg(:, :, 2)));
    In_fil(:, :, 3)=medfilt2(double(InImg(:, :, 3)));

else
    In_fil=medfilt2(double(InImg));
end
figure; imshow(uint8(In_fil)); title('Preprocessed Image');

```

```

% Feature Extraction
originalImage=In_img;
corners = detectHarrisFeatures(gray);

figure;
imshow(originalImage); hold on;
plot(corners.selectStrongest(1000));
title('Input Features Image');
points = detectBRISKFeatures(originalImage);
figure;

imshow(originalImage); hold on;
plot(points.selectStrongest(20));
I_thresh = im2bw(gray,graythresh(gray));

```

```
figure;  
imshow(I_thresh);title('Threshold Segmentation');
```

```
load 'Train_Data.mat';
```

```
addpath(genpath('Functions'));  
Train = mean(sign_feat,2);  
Test = cnn(imresize(In_Img,[256 256]));  
Test = mean(Test);  
CNN_Mem = ismember(Train, Test);  
X = find(CNN_Mem(:,1)>0)  
X = mean(X);
```

```
if (X >1 && X < 150)  
    disp('Detected Status: Forgery')  
    helpdlg(' Detected Author: Forgery ');
```

```
elseif (X >=151 && X <= 300)  
    disp('Detected Status: Original')  
    helpdlg(' Detected Status: Original ');
```

```
end
```