

```
function [ TrainingSet] = FeatureExtractorFunction(imdsTrain)
```

Feature Extraction form GLCM Texture Method and storing all the result in feature variable

```
numImagesTrain = numel(imdsTrain.Labels);

feature=nan(numImagesTrain,4);
for i = 1:numImagesTrain
    RGB=readimage(imdsTrain,i);
    I=rgb2gray(RGB);
    % I=histeq(I);
    imshow(I );
    % offsets0 = [zeros(40,1) (1:40)'];
    % [glcms,SI] = graycomatrix(I,'Offset',offsets);
    [glcms,SI] = graycomatrix(I);
    stats = graycoprops(glcms,'Contrast Correlation Energy Homogeneity');
    feature(i,:)= [stats.Contrast, stats.Correlation, stats.Energy, stats.Homogeneity];
end
```

Add R , G, B average value and standard deviation too as a feature for true color of flower

```
Colorfeature=nan(numImagesTrain,6);
for i = 1:numImagesTrain
    RGB=readimage(imdsTrain,i);
    r=RGB(:,:,1);
    g=RGB(:,:,2);
    b=RGB(:,:,3);
    mr= mean(r(r>10))/255;
    stdr=std(double(r(r>10)));
    mg= mean(g(g>10))/255;
    stdg=std(double(g(g>10)));
    mb= mean(b(b>10))/255;
    stdb=std(double(b(b>10)));
    Colorfeature(i,:)= [mr stdr mg stdg mb stdb];
end
```

Output response

```
TrainingSet = array2table([feature,Colorfeature],...
    'VariableNames',{'Contrast','Correlation','Energy','Homogeneity','Red','std r','green','std g','std b'});
end
```