

30.11.2020

Report - Guest lecture and Hands -on Program on

"Digital Image Enhancement and Restoration Techniques using MATLAB"

Under SDG goal no.4 "Equal Education", Department of Electronics and communication engineering organized a "**Digital Image Enhancement and Restoration Techniques using MATLAB**" session digitally through Zoom meeting for the students of 7th semester ECE on 28th November (Saturday) 2020 successfully.

The session started at 10:00am and was extended till 12:00pm in the Zoom meeting. The students along with ECE Faculty members joined and taken part in the session. The session started by welcoming the guests who took the session. Nearly 60 Students have attended the session .

In the session, Guest Speaker -**Prof. Keerthi Kukarni**, Asst.prof. Dept of ECE -BNMIT, explained in breif about the Digital Image Enhancement and Restoration Techniques theoretically as well as hands-on using MATLAB (few programs in MATLAB with brightness, contrast, what will be the clearance level and so on). The session was very interesting & useful to the students. They explained about the advantages of Enhancement and Restoration Techniques by their own with real life examples, that made students to understand in much better way. They taught the participants few basic programs which can be understood easily.

The session was free to ask queries and those were cleared by the speaker and winded up with vote of thanks. The vote of thanks was given by Anand Shaw of II-year ECE.

Co-Ordinator

Aruna R

Head of the Department

C.Sivapraksh

Principal

Dr.B.Shadaksharappa



Guest lecture and Hands-on "Digital Image Enhancement and Restoration Techniques using MATLAB"

Organized by



Department of
Electronics & Communication Engineering



Schedule: 28th November 2020
10.00AM to 12.00PM



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Guest Speaker



Keerthi Kulkarni
Asst. Prof. Dept. of ECE
BNMIT

Prof. Aruna R
Coordinator

Prof. C Sivaprakash
HOD-ECE

Dr. B. Shadaksharappa
Principal

Sri. Sai Prakash LeoMuthu
Chairman & CEO, Sairam Institutions



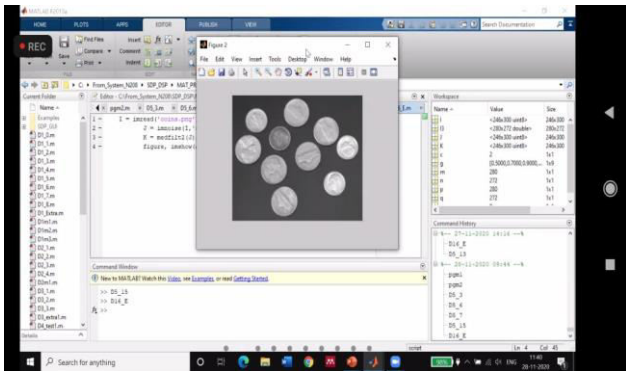
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1 Image Enhancement

```

% HSI Converting
HSI = rgb2hsv(I);
subplot(2,2,1);imshow(I);title('original Image');
subplot(2,2,2);imshow(HSI(:,:,1));title('H');
subplot(2,2,3);imshow(HSI(:,:,2));title('S');
subplot(2,2,4);imshow(HSI(:,:,3));title('I');
% Converting from HSI to RGB
RGB = hsv2rgb(HSI);figure, imshow(I);
  
```

Keerti Kulkarni's screen

10:05 22%

Zoom Leave

Unmute Start Video Share Participants More

2 Image Restoration

```

I=imread('coins.png');
M=0;
V=0.01;
imshow(I);
title('Original Image');
J = imnoise(I,'gaussian',M,V);
figure,imshow(J);
title('Gaussian Noise');
denoisedImage = conv2(double(J), ones(3)/9, 'same');
denoisedImage = uint8(denoisedImage);
figure;
imshow(denoisedImage);
title('Denoised Image');
  
```

$$\begin{matrix} 3 \times 3 \\ 5 \times 5 \end{matrix}$$

```

1 - I = imread('rice.png');imshow(I); figure;
2 - J = imread('cameraman.tif');imshow(J); figure;
3 - K= imadd(I,J);
4 - imshow(K);
5 - figure;
6 - K1 = imadd(I,50);imshow(K1);
7 - figure;
8 - K2 = imsubtract(I,J); imshow(K2);
9 - figure;
10 - K3 = imsubtract(I,5); imshow(K3);
11 - figure;
12 - K5 = imcomplement(I); imshow(K5);
13 - figure;
14 - K6 = immultiply(I, 0.5); imshow(K6);
15
  
```

Command Window

New to MATLAB? Watch this [Video](#), see [Examples](#), or read [Getting Started](#).

folder =

C:\Program Files\MATLAB\R2013a\toolbox\images\imdemos

>> D5_3

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