

# Lecture 3: Digital Image Fundamentals

## Part 3: Interpolation

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Notes:

- Sample images are available in both Matlab IPT *imdata* folder and *images* folder in the current directory. (You may need to add images folder into your path.)
- Related lecture: Lecture3 - Digital Image Fundamentals
- pdf versions of the .mlx files are also available for those using GNU Octave

```
% clear workspace variables and close windows  
clc, clearvars, close all;
```

```
I = imread('cameraman.tif');  
imshow(I)
```



```
I1 = imresize(I,0.2);  
imshow(I1)
```



```
I2 = imresize(I1,5,'nearest');  
I3 = imresize(I1,5,'bilinear');  
I4 = imresize(I1,5,'bicubic');
```

```
figure, subplot(1,3,1)  
imshow(I2)  
subplot(1,3,2)  
imshow(I3)  
subplot(1,3,3)  
imshow(I4)
```

