

## IMAGE PROCESSING WITH PYTHON



### ABOUT THE COURSE :

Imagine, if you can create an application of auto-tagging a photograph as that of Facebook. Interesting?? This Course, Image Processing with Python is designed to provide insights on fundamentals of Image Processing in Python to the students. Image Processing nowadays has become an essential part of computer vision, machine learning, IoT, Automation, Robotics and Artificial Intelligence. The theory sessions are assisted by hands on implementations on ARM Beagle bone and Raspberry-Pi. Come and Join, Visualize your Image Processed Future...



### COURSE CONTENTS :

- ▶ Installation of Python and OpenCV
- ▶ Integration of Python and OpenCV
- ▶ Basics of Image
- ▶ Reading and Writing of Images
- ▶ Accessing Pixel values
- ▶ Arithmetic and Logical Operations on Image
- ▶ Display images in window
- ▶ Getting started with video capturing
- ▶ Scaling, Translation, Rotation
- ▶ Changing Brightness and Contrast
- ▶ Plotting and Equalization of Histogram
- ▶ Image Thresholding
- ▶ Average, Gaussian and Median Filtering
- ▶ Smoothing and Sharpening Filters
- ▶ Canny, Sobel and Laplacian Edge Detectors.
- ▶ Erosion, Dilation, Opening and Closing

### PROJECTS :

- 1) Appearance based Object Detection
- 2) Image Gradients and Edge Detection
- 3) Counting of Coins

The Complete Solution to Projects including Algorithms and Working Codes will be shared with Course Participants.

**COMMENCEMENT DATE:**  
19<sup>th</sup> January, 2018

**CONCLUSION DATE:**  
30<sup>th</sup> January, 2018

**BATCH 1**  
6:00 PM to 7:30 PM  
(Monday to Friday)

**BATCH 2**  
2:30 PM to 4:00 PM  
(Monday to Friday)

**COURSE FEE: RS. 1534/- (INCLUDING SERVICE TAX)**

### Course Instructors

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