# **Image Processing in OpenCV**

#### • Changing Colorspaces

Learn to change images between different color spaces. Plus learn to track a colored object in a video.

#### • Geometric Transformations of Images

Learn to apply different geometric transformations to images like rotation, translation etc.

### • Image Thresholding

Learn to convert images to binary images using global thresholding, Adaptive thresholding, Otsu's binarization etc

#### • Smoothing Images

Learn to blur the images, filter the images with custom kernels etc.

#### • Morphological Transformations

Learn about morphological transformations like Erosion, Dilation, Opening, Closing etc

#### • Image Gradients

Learn to find image gradients, edges etc.

### • Canny Edge Detection

Learn to find edges with Canny Edge Detection

#### • Image Pyramids

Learn about image pyramids and how to use them for image blending

#### Contours in OpenCV

All about Contours in OpenCV

# • Histograms in OpenCV

All about histograms in OpenCV

### • Image Transforms in OpenCV

Meet different Image Transforms in OpenCV like Fourier Transform, Cosine Transform etc.

## • Template Matching

Learn to search for an object in an image using Template Matching

#### • Hough Line Transform

Learn to detect lines in an image

# • Hough Circle Transform

Learn to detect circles in an image

### • Image Segmentation with Watershed Algorithm

Learn to segment images with watershed segmentation

# • Interactive Foreground Extraction using GrabCut Algorithm

Learn to extract foreground with GrabCut algorithm