

Computer Vision with MATLAB

OEM: MathWorks • Duration: 1 Day (8 hrs) • Code: MW-COMPUTER-VISION-WITH-MATLAB

COURSE MODULES & TOPICS

Day 1 of 1

Importing, Visualizing, and Annotating Videos

- Importing and displaying video files
- Highlighting objects by drawing markers and shapes like rectangles
- Combining and overlaying two images
- Performing iterative computations on video frames

Detecting Objects

- Marking objects of interest in training images
- Training and using a cascade object detector
- Using a deep learning object detector

Estimating Motion

- Understanding motion perception in images
- Estimating motion using optical flow methods

Tracking Objects

- Tracking single objects using a Kalman Filter
- Tracking multiple objects using a GNN tracker

Camera Calibration

- Estimating intrinsic, extrinsic, and lens distortion parameters of a camera
- Visualizing the calibration error
- Removing lens distortion
- Measuring planar objects in real-world units