

Machine Vision

Spring 2021 Draft Schedule

Week of:

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| 1. 1/25 | 1. Introduction to Machine Vision
2. Commercial Vision Systems |
| 2. 2/1 | 3. Digital Images
4. MATLAB Basics
5. MATLAB Image and Vision Toolboxes |
| 3. 2/8 | 6. Image Histograms
7. Arithmetic Operations |
| 4. 2/15 | 8. Geometric Operations |
| 5. 2/22 | 9. Color Images |
| 6. 3/1 | 10. Image Formation
10.1. Cameras
10.2. Perspective Projection Model |
| 7. 3/8 | 10.3. Homography
10.4. Stereo Cameras
10.5. Active 3D Sensors |
| 8. 3/15 | 11. Neighborhood (Spatial) Processing
Mid-Term Exam |
| 9. 3/22 | 12. Morphology |
| 10. 3/29 | 13. Segmentation |
| 11. 4/5 | 14. Image Features |
| 12. 4/12 | Finding Objects Project |
| 13. 4/19 | 15. Edge Detection |
| 14. 4/26 | 16. Visual Servoing
17. Frequency Domain Filtering |
| 15. 5/3 | Finish Projects / Review |
| 16. 5/10 | Final Exam Week |