

Computer Vision Final Project

Spring 2022

Schedule

| Week | Date | e Topic |
|------|------|---|
| | 1 | 2/18Introduction to human vision systems |
| | 2 | 2/25 Camera basic, image formation and basic Image processing |
| | 3 | 3/4 Feature detection and matching |
| | 4 | 3/11 Machine learning basics |
| | 5 | 3/18 Deep learning basics |
| | 6 | 3/25 Recognition |
| | 7 | 4/1 Segmentation |
| | 8 | 4/8 Projective Geometry |
| | 9 | 4/15 Estimation of Transformations |
| | 10 | 4/22 Single Camera Geometry/Camera calibration |
| - | 11 | 4/29 Two-View Geometry |
| - | 12 | 5/6 Dense motion estimation/stereo |
| - | 13 | 5/13 Optical flow + object tracking |
| - | 14 | 5/203D reconstruction/depth sensing |
| | 15 | 5/27 Structure from motion |
| | 16 | 6/3端午節 |
| | 17 | 6/10 Final project presentation |
| | 18 | 6/17 Final project presentation |

Final Project

- Group final project: 30%
- Group based project, <=3 people/group
- Two options
 - Option 1: Light-Weight Facial Landmark Prediction Challenge
 - Option 2: Pupil Tracking





Final Project Schedule

- Before 5/16: topic application
 - Fill the form on-line
 - https://forms.gle/K6vQdFoNjBFg9Jy69
 - Will announce the results on 5/18

• 6/17: Final presentation (check your calendar!)

Final Project Presentation (Tentative Schedule)

- Time: 6/17 13:30—17:30
 - 13:30—15:10 Microsoft Project
 - 15:10—15:30 Break
 - 15:30—17:30 Ganzin Project