



Computer Vision Final Project

Fall 2018

Schedule

Week	Date	Topic
1	9/12	Introduction to human vision systems
2	9/19	Camera basic, image formation and basic Image processing
3	9/26	Feature detection and matching
4	10/3	Machine learning basics
5	10/10	國慶日放假
6	10/17	Deep learning basics
7	10/24	Recognition and detection
8	10/31	Segmentation
9	11/7	Projective Geometry, Transformations and Estimation/Camera calibration
10	11/14	Camera Geometry and Single View Geometry
11	11/21	Two-View Geometry
12	11/28	Dense motion estimation/stereo
13	12/5	Structure from motion
14	12/12	3D reconstruction/depth sensing
15	12/19	Computational photography
16	12/26	Object tracking
17	1/2	Advanced topics in CV
18	1/9	CES
19	1/16 → 1/18	Final Project

Final Project

- Group final project: 35%
- Group based project, ≤ 4 people/group
- Two options
 - **Option 1:**
Depth Map Generation on More Realistic Scenes
 - **Option 2:** You can define your own topic
 - Need to pass the review by professors and TAs. Return to Option 1 if not passed.
 - Challenging CV tasks (more challenging than course assignments)
 - CV application systems
 - Better to have live demonstration



Final Project Schedule

- 12/12: proposal
 - Content
 - Topic of the final project
 - Group members (學號ID, name, email)
 - Introduction
 - Expected results (what can be demonstrated)
 - Reference
 - No more than 2 A4 pages
 - Email to sychien@ntu.edu.tw
 - Title: CV Project
- 1/2: Progress report
- 1/18: Final presentation (check your calendar!)