National Tsing Hua University
Department of Electrical Engineering
EE6620 Computational Photography (計算攝影學)
Spring 2022

Term Project (40%)

Assigned on May 6, 2022

Due by **Jun 17**, 2022

Objectives:

You will need to use what you learned in this course to 1) implement an interesting algorithm of computational photography and then enhance it or 2) do a small research project to develop an interesting application. You can use any programming language and any available library for your term project. However, remember to highlight your contribution in detail, in particular for your **assumption** and **justification**.

Example Topics **(your own proposal is preferred):**

Type I: Implementation and enhancement of existing algorithms

1. **Single-image HDR**
2. **Burst deblurring**
3. **Super-resolution**

Type II: Interesting (and specific) applications

1. **Digital telescope (for static objects)**
2. **Animation super-resolution**
3. **Photoshop copier**

Teaming:

One team can have up to three members (two or three members are recommended). The grading will also depend on the contribution of each member.

Project Schedule:

May 6, 2022:	Project announcement
May 20, 2022:	Project topic and team member identified (check with TA 丁友鈞)
May 27, 2022:	Interim presentation (**three-minute recorded video**), including survey material and your topic
Jun 17, 2022:	Final presentation (**six minutes, format TBD**); submission of source code and project report (**no late submission is allowed**)

Deliverable (per team basis):

1. Interim presentation video
2. Final presentation slides
3. Source code and executable; test image/video if any
4. Project report (**in 5 pages**) which should precisely and concisely state your ideas, contributions, assumptions, and justifications.

Grading Rule:

1. Survey (10%)
2. Novelty/assumption (20%)
3. Difficulty/completeness (20%)
4. Experiment/justification/discussion (20%)
5. Interim presentation (10%)
6. Final presentation (20%: 10% by teacher and TA, 10% by students' cross-evaluation)