Image Processing Team Project 02 Specification

1. Topic

Proposed by Team Leader (each team has 3~4 students)

* Global teams will get additional points

* Teams with one or two students will get penalty points

2. Related references

OpenCV Library: http://opencv.org/

OpenCV Korea: http://www.opencv.co.kr

※ These web sites provide the tutorials, practice for image I/O and the documentations like user's

guide and reference manual for Digital Image Processing with OpenCV library

3. Submission

A. Survey & Plan

1) Submit a survey & plan file(word) which includes the introduction of team. (Presentation

Materials are required.)

 -Submit folder: e-Class/ Image Processing / Assignments / Team project 02 - Survey & Plan

- File name: TeamNumber_TeamName_Plan.zip (ex: Team01_DIP_Plan.zip)

  - Include the **plan report file(word) and presentation Material (ppt)** in the subfolder.

- Deadline: 11:59 PM, Tue. November 4th.(10th week)

2) Proposal presentation: Thurs. November 6th in Class (10th week)

- Presentation will be done by team leaders (about 5 minutes per team)

- <u>Specify that your team is global</u> in the presentation, if so.

B. Final presentation and demonstration

1) Submit the source codes of your program that can be compiled in an integrated environment

(Visual Studio) and include all files that are created by the compiler.

- Submit folder: e-Class / Image Processing / Assignments / Team project 02 - SRC

- Zip file name: Team0_teamname_Src.zip

- **Deadline of source codes: 11:59 PM, Sat. November 29th. (13th week)**

2) Submit a final report(word) that includes the contents below.

① Outline of program

② Design of program

③ The project time line

④ Design process of group discussion(Picture and Capture image of Kakao Talk, etc.)

⑤ Team's thoughts on this project

⑥ Etc.

Similarly Submit a presentation material. (Presentation file and Demonstration video file)

Submit the Report and PPT at

- Submit folder: e-Class / Image Processing / Assignments / Team project 02 - PPT

  - Zip file name: Team0_teamname_PPT.zip

  - Submit folder: e-Class / Image Processing /Assignments / Team Project 02- Final

- Zip file name: Team0_teamname_Final.zip

- Deadline of final report and Presentation material is: 11:59 PM, Sat. December 6th. (15th week)

3) Final Presentation

 - Presentation: Thurs. December 11th in Class. (15th week)

 - Presenter is selected randomly (All the members should prepare the presentation).

4. Notifications

 - Project should be implemented in C++ or Python.

 - Please Submit a zip file.

 - Except input and output functions in OpenCV,

 - Do not simply copy the pre-implemented function in libraries.

 - Deep Learning frameworks such like Pytorch and Tensorflow are allowed to use.

 - Use E-class Q&A board for further questions.

5. FAQ

Please refer to the FAQ below for guidance on proceeding with the project.

Q1: What are the limitations on library usage?

A:.

The use of library functions is allowed, if your project topic is not directly done by them. In other words, use of functions that are not the same as the main idea of your project, is accepted. If any library function is used, be sure to state the contribution compared to previous methods.

Q2: Can I use pre-trained models?

A:

Yes, you can use pre-trained models. if pretrained model is used, be sure to state the contribution compared to previous methods.

Q3: Are we allowed to use Tkinter for a GUI?

A:

Yes, using Tkinter for GUI development is allowed. While it may not be explicitly listed in the authorized libraries, GUI implementation is not restricted, as long as it supports the functionality of the assignment and aligns with the project goals.

Q4: Can we use pre-trained models as PyTorch and TensorFlow are allowed? Is a user interface necessary, or can it be console-only?

A:

Yes, you are allowed to use pre-trained models with PyTorch or TensorFlow, but they should only serve as supplementary tools. The core logic of the project should showcase your own implementation or techniques relevant to the project objectives.

Regarding the user interface, it is not mandatory to create a GUI; a console-based implementation is perfectly acceptable, as long as it fulfills the project requirements.

6. Etc

- Global teams(composed of korean and international members) will be given 5 bonus points (out of 100 in total).