Image Processing - Notes about the project - From last year (proposal's feedback)

General Rule: Finishing a working project has a much higher priority than optimizing performance or handling complex environments. After we reach a stable state for the project, we optimize and try different environments.

It's required in the project to handle new problems and try to search for or invent solutions. If your project doesn't have that kind of challenge, then it isn't a good one. This is a very challenging part of the project; however, we think it is the most important phase of the project. And, of course, it is more important than just writing a working code.

We totally understand how it's difficult and time-consuming to choose an idea, especially in a broad project like Image processing. And you did well!

About the rejection of some projects' ideas:

The most important factors that determine whether the idea is accepted or not are:

1- The amount of **Image Processing & Computer Vision techniques** involved, **NOT** the size of the project itself, so some excellent ideas are unfortunately rejected.

2- The amount of the work, given the remaining weeks.

3- The number of concepts that need to be self-studied.

4- Applicability, Novelty & Fancy GUI: However, they are essential in real-life products and business; we consider them side-points if they contradict the other points.

5- Of course, we might misunderstand some of the ideas; you are free to contact us for any further illustrations.

6- Some of the rejected ideas might contain huge work unrelated to the course and needs a lot of self-studying. If you (all the team members) accept taking the risk, we will have to accept it unwillingly. Your life should be more than just College!
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For some common ideas, we have unified the rules:

1- Hand Gestures (or Sign Language):

- Other objects might be with the hand in the same frame (for example, a face)
- Working with one hand in the scene is accepted.

    If your project contains hand movement tracking, you should deal with at least 6 easy samples.
    If your project just shapes, you should work on 6-8 simple shapes and at least 3 similar shapes (from an image point of view).

2- Style Transfer:

CNN is not accepted, if you use another Image Processing technique, send us the used paper(s), and we will examine them first.

3- Cartoonization - Face overlay -...

- This category deals with a real-time video (stream of images) and replaces faces with an overlay or cartoonize it. It should deal with scales, orientations, rotation, lighting conditions, and so on. No fixed filters are accepted.
- You may deal with one face only.
- You should deal with face(s) in different scales, orientations, and **Slight** rotations. Your overlay, filter, etc., should align with your face with its scale, orientation, etc.
- You should deal with a scene that contains multiple objects, not just the face.