

CS558 Computer Vision: Project #1

“Hybrid Image”

Due date: Thursday, 03/26/2015, 5:00pm

Description:

Read Olive and Torralba’s SIGGRAPH 2006 paper on “Hybrid Images”

A. Oliva, A. Torralba, P.G. Schyns, “Hybrid Images,” SIGGRAPH 2006
(http://cvcl.mit.edu/publications/OlivaTorralb_Hybrid_Siggraph06.pdf)

A hybrid image is an image that presents different visual effects when viewed from different distances. It is created by mixing the low-frequency component of an image with the high-frequency component of another image together. You should use what you learned from Lecture V to create your own hybrid images. You should use your own creativity to find your own image sources and create your favorite hybrid images.

What to turn in?

You should write a report to present each of the intermediate results you will obtain, such as the low-pass and high-pass filtered image results that are used to create the desired hybrid image. Also present and discuss the final hybrid image you create.

Please make your Matlab code in a single .m file with appropriate comments from each line of the code.

Integrate your report (a pdf file), your Matlab code, and your used source images into a single zip file. Submit it to TA (Xin Li, li.xin.cv@gmail.com) before the due time.

Please name your folder as well as the zip file as
[yourfirstname]_[yourlastname]_Project1.zip

If your code can not run, you may also turn in it with more detailed comments on what you did and tested in your code.

Bonus Points:

You will get 2 bonus points if you make your hybrid image results in color images. You may think if you need to use color images for both high- and low-frequency components.

Any creative results you make in your project will also be granted additional bonus points.

Grade: 10%

You will be penalized if your code can not run. You will also be penalized if you don't create the hybrid image in a right way.

Late submission policy applies universally with no exception.

If you have a compelling excuse, you must inform me at least 2 days before the due date. I don't accept excuses such as **"I am overloaded by other courses"**.