CSL 783 Assignment 1C (For group 3)

Corner Detection in Images

In this assignment you will implement the Harris corner detector which have been discussed in the class. As a first step use a bilateral filter to reduce noise. You can use the bilateral filter in matlab (http://www.mathworks.in/matlabcentral/fileexchange/12191-bilateral-filtering). It normally uses two kernels so that it can control the smoothening effect on image while preserving the edges. You have to tune the parameters of these two kernels for getting a good output. For an intuitive idea on the working principle of bilateral filtering please refer to (http://homepages.inf.ed.ac.uk/rbf/CVonline/LOCAL_COPIES/MANDUCHI1/Bilateral_Filtering.html) and WIKIPEDIA.

Then, find out good features using the Harris corner detector and show the detected corners by overlapping them on the images. Some simple examples are shown below: You have tweak the parameters for detecting corners on more complex images.

Submit the MATLAB code along with proper documentation by 22.08.2014. The code must contain title of the assignment, your name, entry number and date of submission at the top of the assignment. It must include a statement indicating that the assignment has been done solely by you and is not copied from another source. Submissions done after the due date would receive zero credit.