

GEORGIA INSTITUTE OF TECHNOLOGY  
SCHOOL of ELECTRICAL and COMPUTER ENGINEERING

**ECE 8813A    Spring 2017**  
**Problem Set #7**

Assigned: 29-March-17

Due Date: 17-April-17

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**PROBLEM 7.1:**

**Given:** The template file named HW6\_top and the testbed named hw6\_tb.v file.

**Find:** Implement an image transpose (rotate the image 90 degrees) when the sel\_operation signal is set to 1. Output the image in BOTH VGA format and the streaming pixel format that was used in HW5. Run the hw6\_tb.v file and observe that the correct VGA signal is output as well as the correct image file is created. When sel\_operation is set to 0 pass through the input data to the output. Two output images will be created after this testbed has been run. One file will contain the transposed image and the other will contain the original image.