

**Assignment 3**

You are given 3 designs containing 3 Trojans each. The objective of this assignment is to identify the trojan in the design and provide the activation condition/sequence that triggers the trojan behavior.

Note:

1. Each design has only one trojan
2. Some trojans have multiple activation conditions, you need to provide only one (Extra credit if you identify ALL the activation conditions)
3. Run each design along with the cmos\_cells.v file  
E.g. iverilog fulladder\_troj1.v cmos\_cells.v (if you are using a testbench then the command would be iverilog tbfulladder\_troj1.v fulladder\_troj1.v cmos\_cells.v)

Your report should contain the following:

1. Description of the trojan behavior (3 pts)
2. Test case that triggers the trojan (6 pts)
3. Potential remedy from detecting the trojan (2 pt)

For the final point,

Design your own trojan for any of the circuits provided