ECE1733 – Assignment #2

Due: April 3

Problem 1:

Write a C-language program to implement a basic BBD package. It should include the ability to create, destroy, add and remove nodes from a BDD graph. This package should take as input BLIF files that describe logic functions and represent each function as a (Reduced-Ordered) BDD.

Problem 2:

Use your BDD package to implement the Apply algorithm. Measure the runtime of your algorithm on a few test cases.

Problem 3:

Use your BDD package to implement the sifting algorithm. Measure the runtime of your algorithm on a few test cases.

Problem 4:

Download a BDD package called CUDDbdd (http://vlsi.colorado.edu/~fabio/CUDD/). Use it to implement the apply algorithm and compare its runtime to your own package. Comment on the difference in performance.