

EC801 – Logic Synthesis Techniques

Assignment-1

Given a SoP form of Boolean expression, write a Python program to

1. Find the cofactors of the function with respect to any given variable or a set of variables (a, ab ab' etc) and display the results.
2. Find the Boolean Difference, Consensus and Smoothing functions of the Boolean expression with respect to a given variable.

Assumption:

1. You are free to assume the way you want to input the Boolean expression – from keyboard, from a file etc. Product terms can also be given as one per line. It is left to you to decide how to feed the input Boolean expression.
2. Whichever program takes bigger Boolean Expressions (with more variables) and gives the correct answer will be the benchmark for evaluation.

Max. batch size: 2 students