VLSI Engineering Lab Assignment 4

Write the Verilog code to find the greatest common divisor of two 8 bit numbers in sign-magnitude using the Stein's algorithm.

Refer to the following links for details-

https://en.wikipedia.org/wiki/Binary_GCD_algorithm
https://www.geeksforgeeks.org/steins-algorithm-for-finding-gcd/
http://wairco.org/IJCECE/June2014Paper1.pdf
https://arxiv.org/pdf/1407.6794.pdf

Answer the following questions (send answers in a PDF)

1) Draw an FSM based formulation of the Stein's GCD Algorithm (hint- there are 4 states,and the system is in one of the four states at every iteration).

2) What can be an efficient way of using the Stein's GCD Algorithm for finding the GCD of three numbers?

Note : Send your submissions to sudarshansharma04@gmail.com, harshit.roy30014@gmail.com, and nitinkush16@gmail.com by 18th May 2020 midnight.