Lab - 5

Casino-type Game (FSM)

Casino Type Game

- Random Number Generator will generate Random Numbers
  - Use two of them to generate two random numbers
  - Previously, it was a 8-bit Random Number
  - Now it will be two 4-bit Random Numbers
    - Random Numbers will be from 0 - 15
    - Display it in HEX
      - 0 - 9 : 0 - 9
      - 10 - a; 11 - b; 12 - c; 13 - d; 14 - e; 15 - f
  - Two Random Numbers -Two LFSRs - Two Seeds

Casino Type Game (contd….)

- Modify the Seven Segment Display code to accommodate the remaining HEX numbers.
- Use two - 7 segment displays to show the two random numbers.

Casino Type Game (contd….)

- Use an additional Button, to implement the Roll Function
- When “Roll” is pressed, Sum-up the two Numbers
- Then
  - If Sum > 25, Display “UI” in the remaining two 7 segment displays
  - If Sum < 5 , Display “LO” in the remaining two 7 segment displays
  - Else, Accumulate Sum, Display “AO” in the remaining two 7 segment displays

References

[1] “*Digital Systems Design using Verilog*” - C H Roth, L K John, and B K LEE. 2nd Edition

Article 5.4 - Implementation of Dice Game - Pgs 309 - 314

END

Any Questions?