



# Circuit Simulation Project

<https://esim.fossee.in/circuit-simulation-project>

Name of the participant : Ashoo Ohri

Title of the circuit : XOR Circuit Analysis

Theory/Description : Analysing the XOR circuit using NAND gates.

Logic Table, expression and symbol for XOR gate



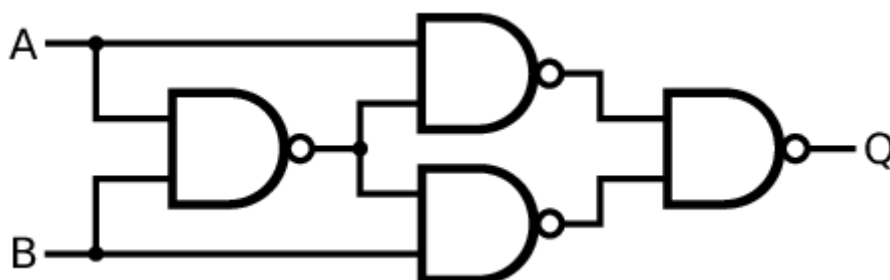
BOOLEAN EXPRESSION

$$\left. \begin{array}{l} A \cdot \bar{B} + \bar{A} \cdot B \\ (A + B) \cdot (\bar{A} + \bar{B}) \end{array} \right\} C = A \oplus B$$

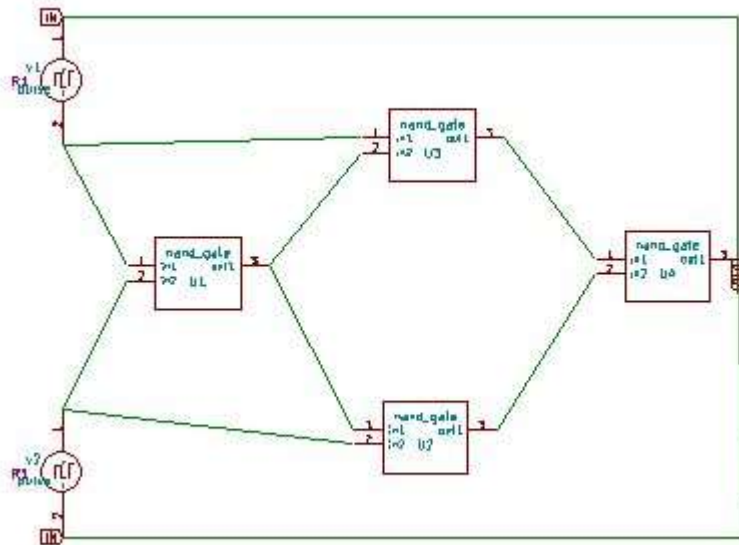
Input1  
Input2  
Output

INPUT		OUTPUT
A	B	A XOR B
0	0	0
0	1	1
1	0	1
1	1	0

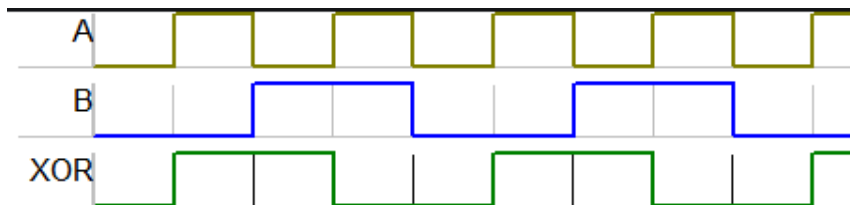
xor implementation from nand gates



## Circuit Diagram(s) :

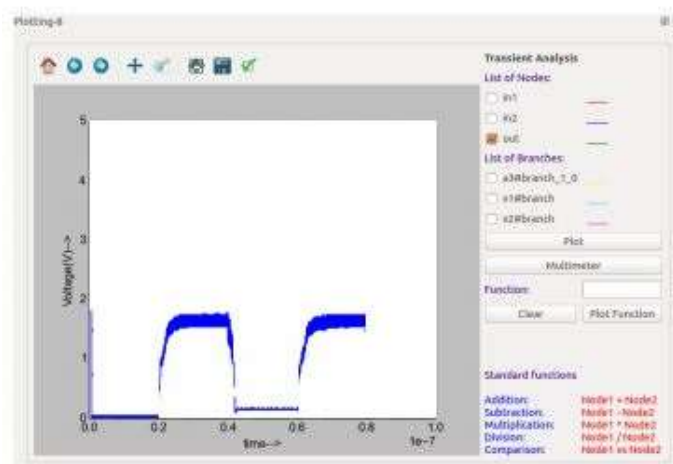


## Results (Input, Output waveforms and/or Multimeter readings) :



## DESIRED WAVEFORM

## OUTPUT WAVEFORM



**Source/Reference(s) :**

**1)eSim manual**

**2)Google**

**3)XOR implementation from NAND gate from Morismano**