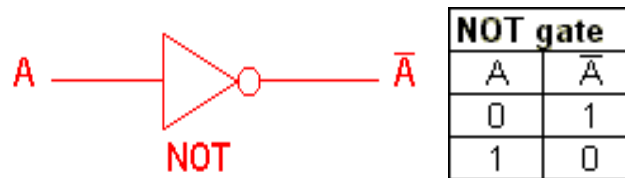


## Experiment 1

**Aim:** To verify truth table of NOT gates using esim software

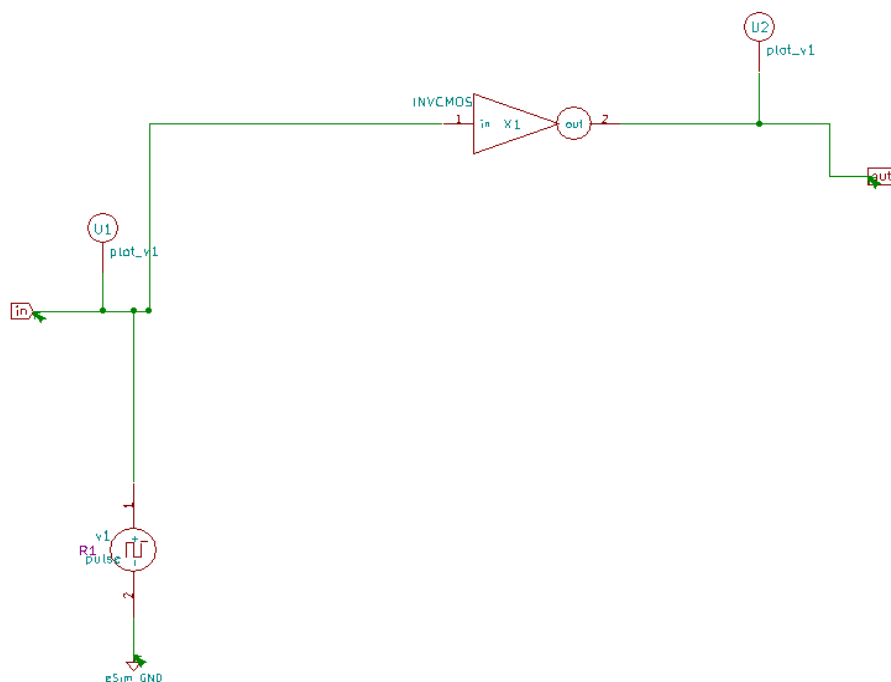
**Theory:**

**NOT gate:**

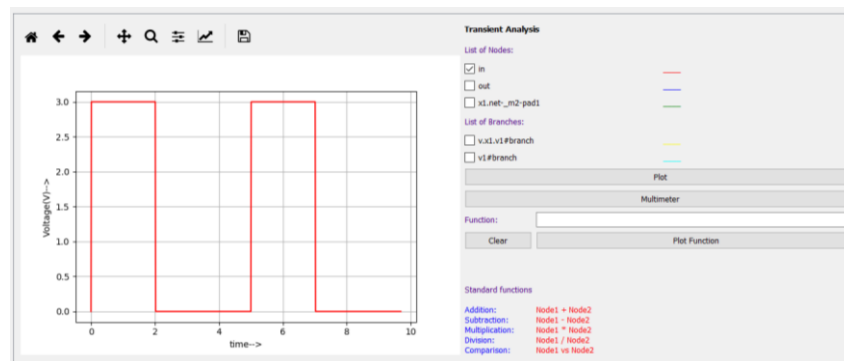


The NOT gate is an electronic circuit that produces an inverted version of the input at its output. It is also known as an *inverter*. If the input variable is A, the inverted output is known as NOT A. This is also shown as A', or A with a bar over the top, as shown at the outputs.

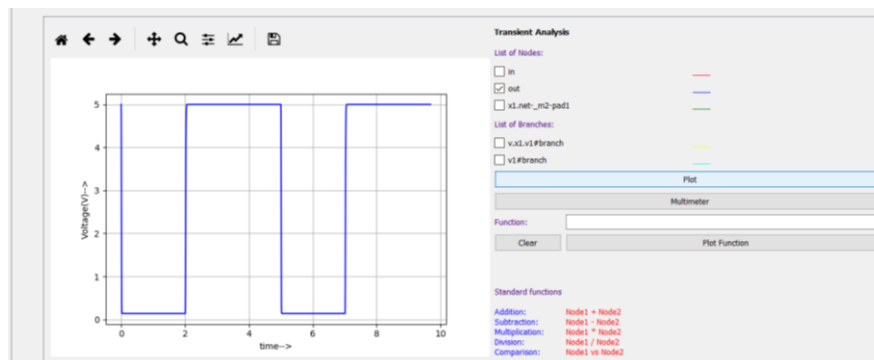
**Circuit Diagram:**



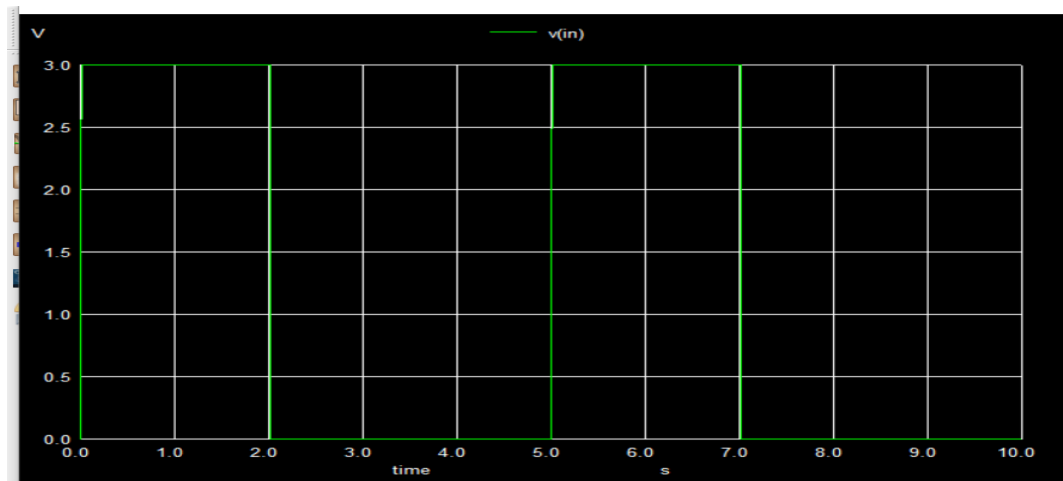
## Python plot of Input :



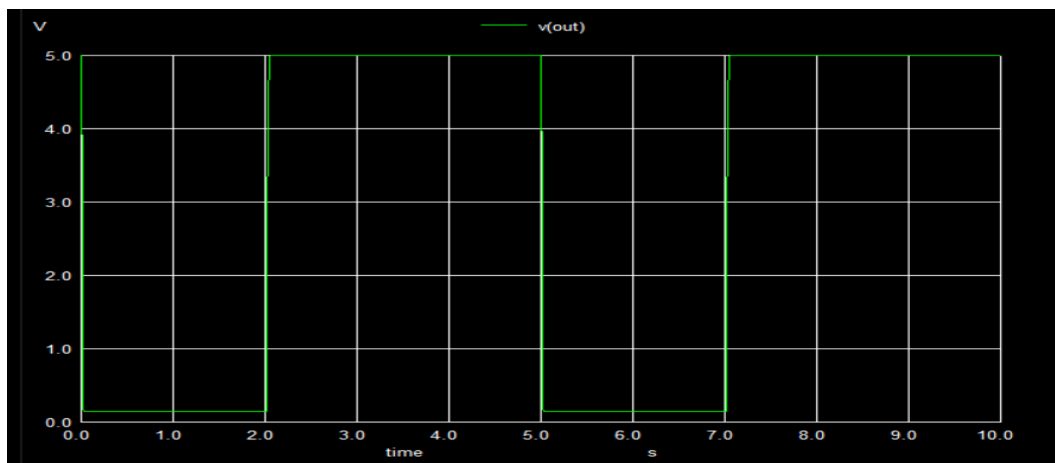
## Python Plot of output :



## Ngspice Plot of input :



**NGSPICE Plot of output:**



**Reference:**

1)CMOS VLSI Design A circuit and systems perspective by Neil H.E.Weste,David M.Harris. fourth edition

2)Digital logic and computer Design by Morris Mano