

VLSI LAB Exercise-6 T - FlipFlop using Static CMOS Gates

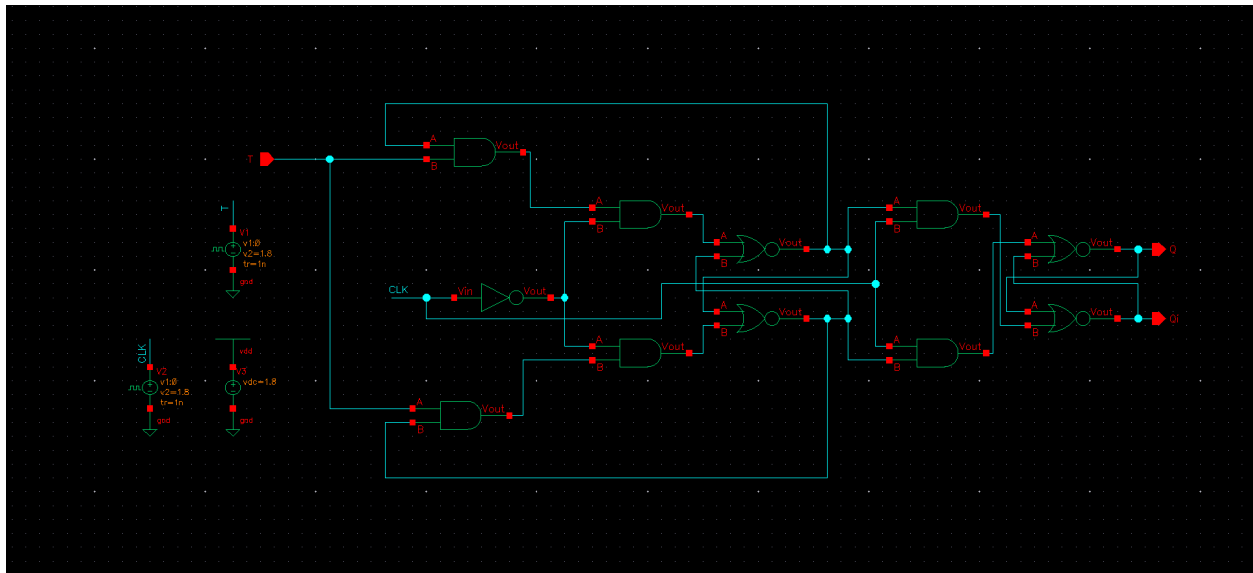
Group Number: 2

Group Members:

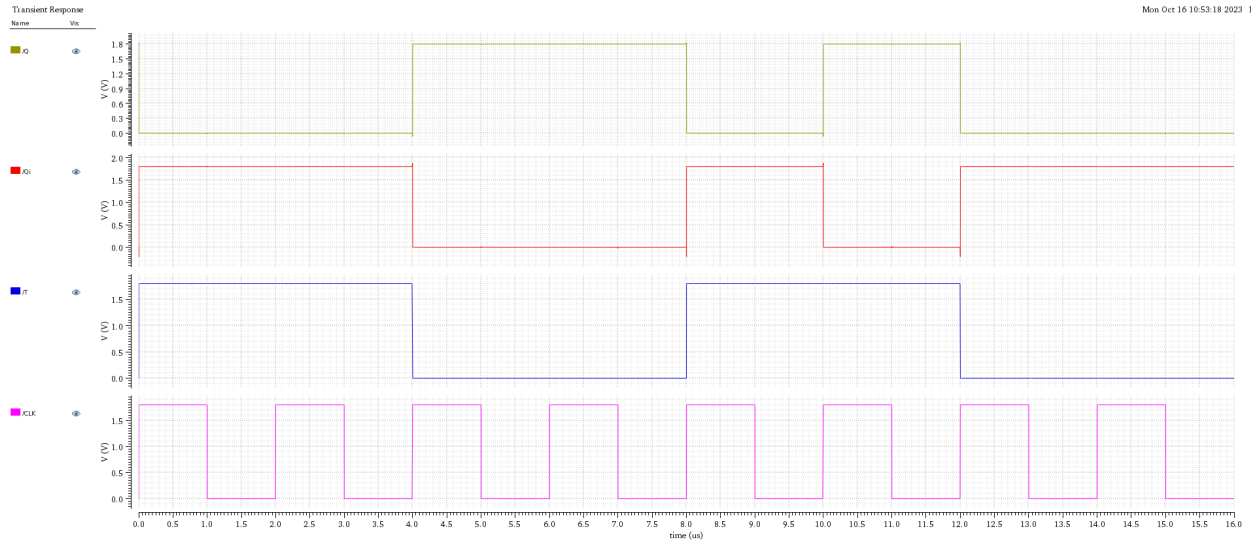
Thathapudi Sanjeev Paul Joel - 2020AAPS0120H

Aditya Anirudh - 2020AAPS0373H

Schematics:



Waveforms:



Metrics Measured:

$$t_{\text{clk-Q(LH)}} = 517.9 \text{ ps}$$

$$t_{\text{clk-Q(HL)}} = 514.6 \text{ ps}$$

$$t_{\text{setup}} =$$

$$t_{\text{hold}} =$$

$$\text{Power dissipation} = 244 \text{ } \mu\text{W}$$

Conclusion:

In this exercise, we designed a T-flip flop using **master-slave configuration of SR-latches** with relevant excitations to the SET and RESET inputs. We also measured the different timing factors like clocked-Q delay, setup time, and hold time.