

## **Experiment 2**

### **CMOS Inverter Static Characteristics**

1. Design a CMOS inverter, with equal width of both PMOS and NMOS (400 nm) and plot its DC transfer characteristics. From the characteristics, find the midpoint voltage ( $V_M$ ).
2. Obtain  $V_{OL}$ ,  $V_{OH}$ ,  $V_{IL}$ ,  $V_{IH}$ , and noise margin.
3. Maintain the NMOS width as 400 nm and alter the PMOS width to obtain a symmetrical DC characteristic.