

Experiment 1

MOS IV Characteristics

1. For an NMOS transistor, study the transfer characteristics, i.e. variation of I_D with V_{GS} , for a constant V_{DS} . Obtain the threshold voltage V_{th} from this characteristic.
2. Repeat (1) for multiple values of V_{DS} .
3. For an NMOS transistor, study the output characteristics, i.e. variation of I_D with V_{DS} , for a constant V_{GS} . Comment on your observations from the characteristics.
4. Repeat (3) for multiple values of V_{GS} .
5. Repeat (1-4) for a PMOS transistor.