

MAHAVEER

INSTITUTE OF SCIENCE & TECHNOLOGY

Approved by AICTE, Affiliated to JNTU, Hyderabad.

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**DEPARTMENT
OF
ELECTRONICS & COMMUNICATION ENGINEERING
CMOS INVERTER**



ESTD : 2001

**Presented
By
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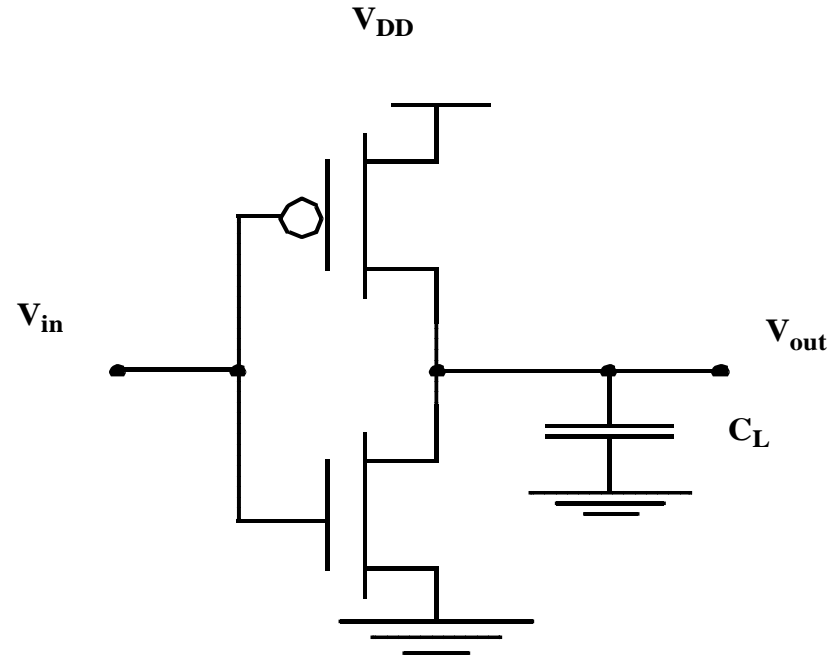
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INTRODUCTION

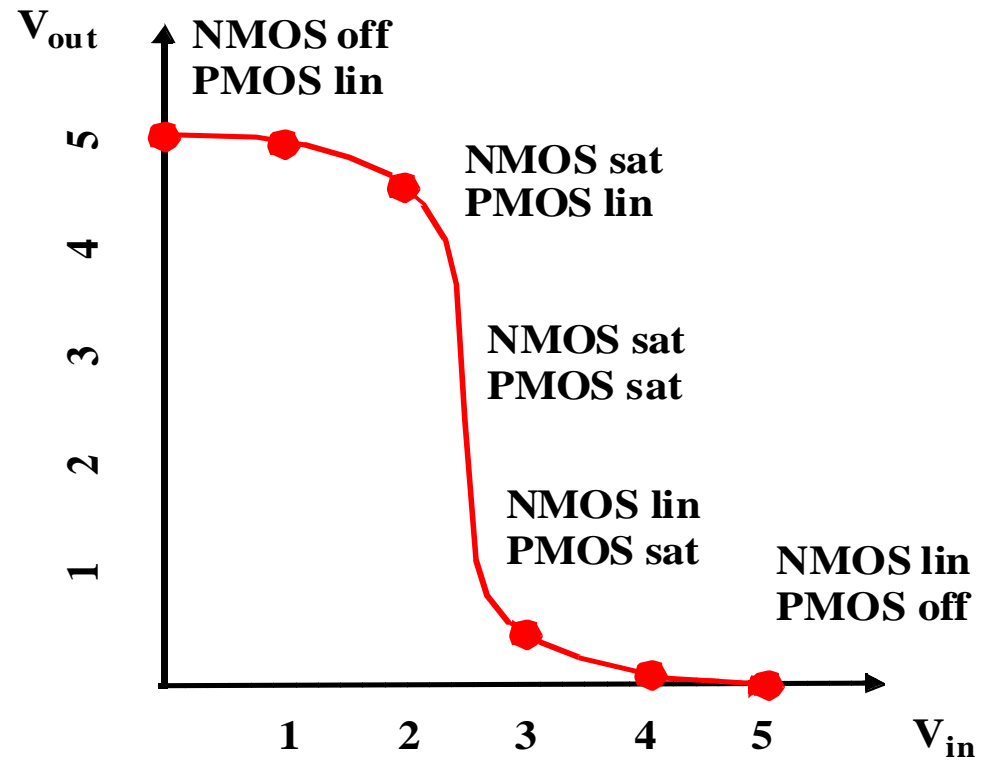
- The term CMOS stands for” Complementary Metal Oxide Semiconductor”. CMOS Technology is one of the most popular technology in the computer chip design industry.
- This is the dominant Semiconductor Technology for microprocessors, micro controller chip memories like RAM,ROM,EPR0M,EEPROM and ASIC.

Circuit Diagram of CMOS Inverter

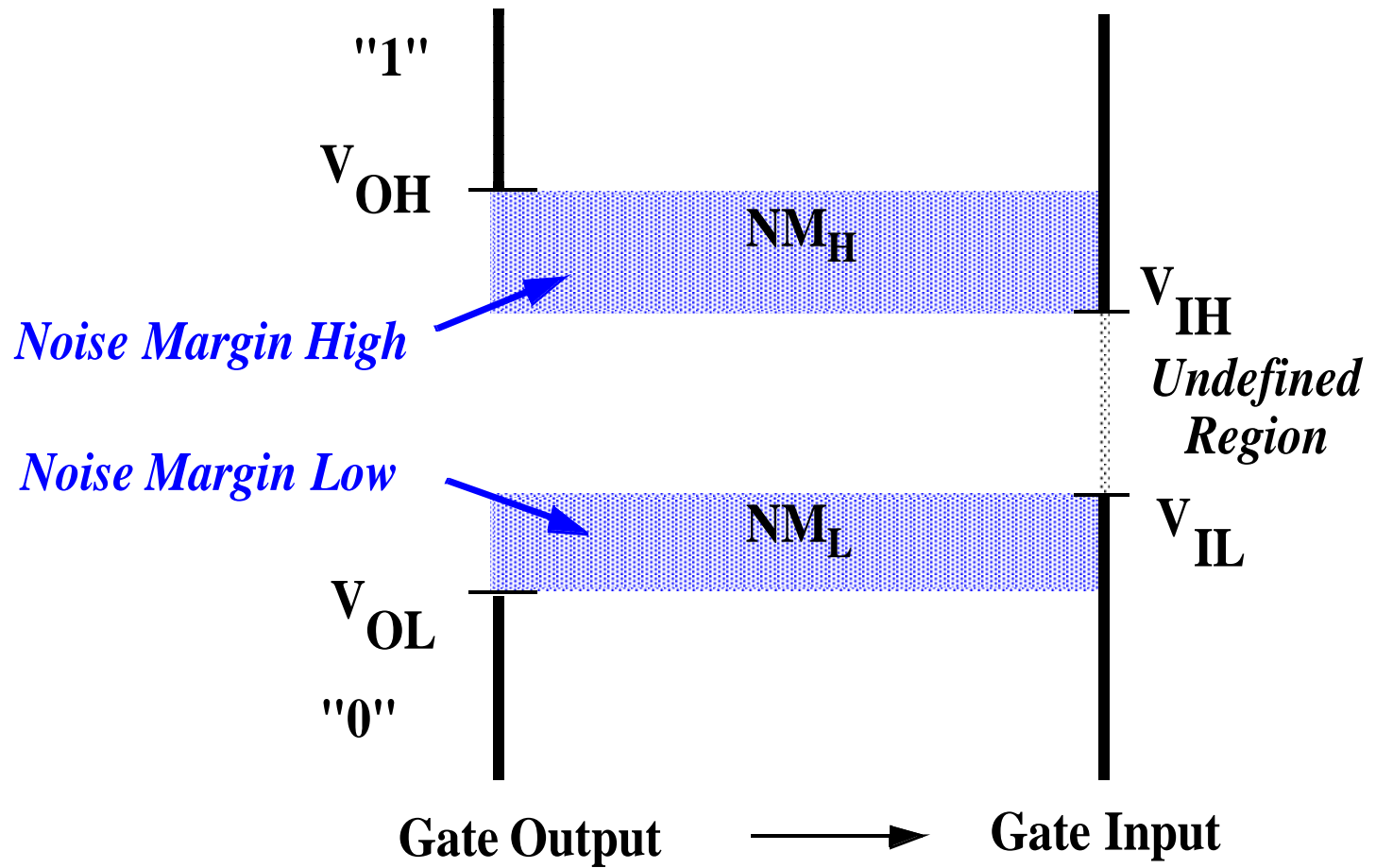


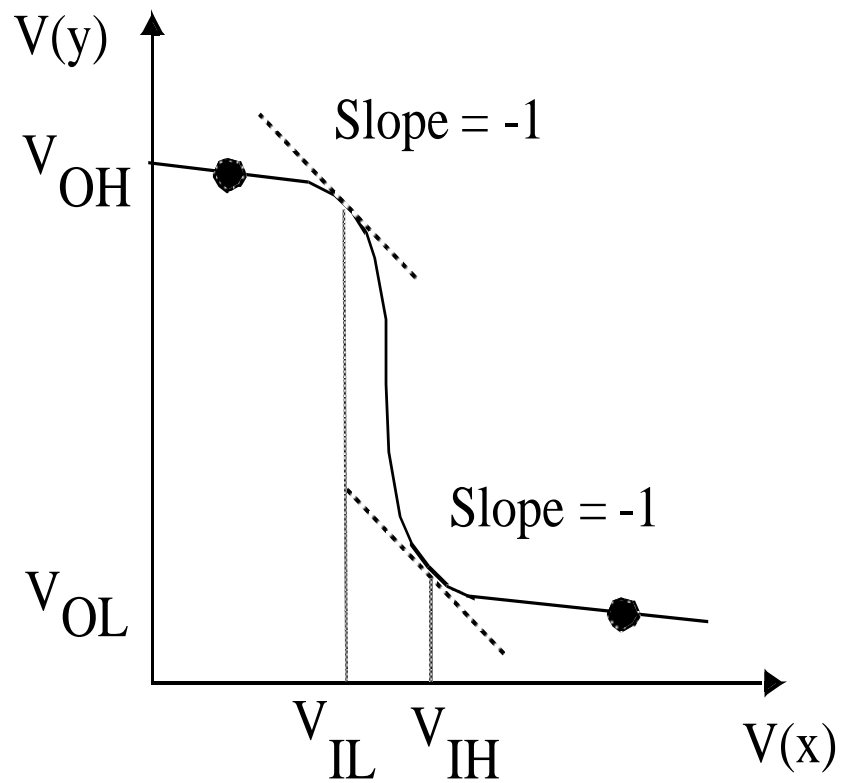
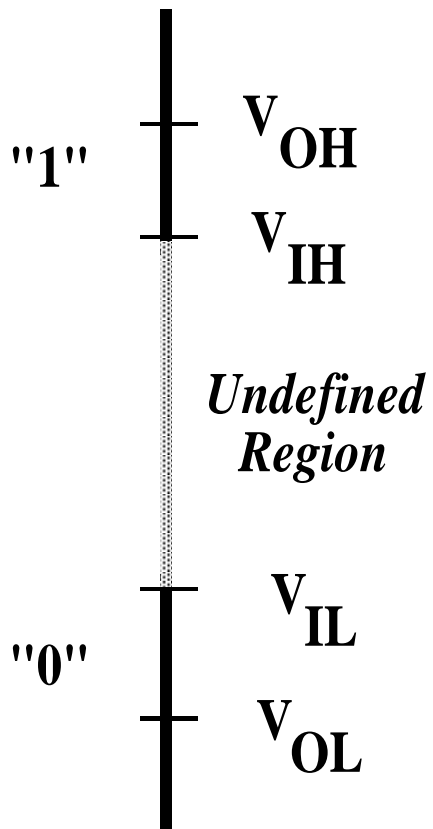
	PMOS	NMOS	V_o
$V_i=0$	ON	OFF	1
$V_i=1$	OFF	ON	0

CMOS Inverter VTC

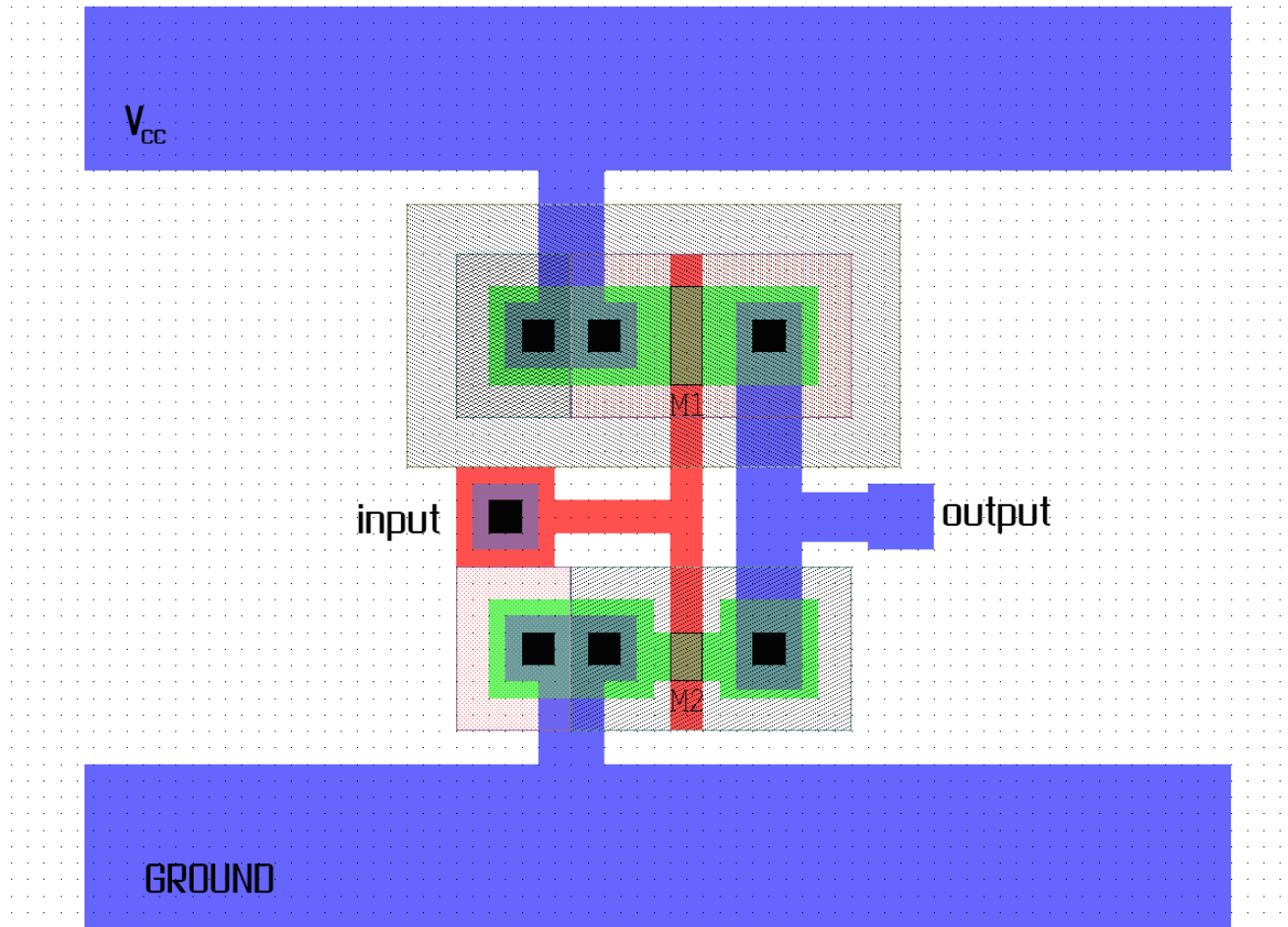


Definition of Noise Margins





CMOS Inverter-Layout



Advantages

- High Speed
- Reduce the complexity of the circuit
- Low power dissipation
- High noise margin
- High input impedance

THANK YOU

ANY QUESTIONS?