



**Dhirubhai Ambani Institute of Information  
and Communication Technology**

**EL114**

## **Digital Logic Design**

**Dr. Yash Agrawal**  
Assistant Professor,  
DA-IICT, Gandhinagar

## **Introduction**

### **Logic Families**

Digital ICs not only classified according to their logical operation but also by specific logic circuit family to which they belong....

Dr. Yash Agrawal @ DA-IICT Gandhinagar

2

## **Different Types of Logic Families**

- **RTL:** Resistor Transistor Logic
- **DCTL:** Direct Coupled Transistor Logic
- **RCTL:** Resistor Capacitor Transistor Logic
- **DTL:** Diode Transistor Logic
- **TTL:** Transistor Transistor Logic
- **IIL:** Integrated Injection Logic
- **HTL:** High Threshold Logic
- **ECL:** Emitter Coupled Logic
- **MOS:** Metal Oxide Semiconductor
- **CMOS:** Complementary Metal Oxide Semiconductor

Dr. Yash Agrawal @ DA-IICT Gandhinagar

3