

Topic 1: Introduction to Logic Gates

Definition of Logic Gates

- Logic gates are electronic devices that take one or more binary inputs (0 or 1) and produce a binary output based on specific logical rules.
- These gates are used to perform logical operations like AND, OR, NOT, XOR, and more.
- Each gate has its unique behavior and truth table that defines its output for all possible input combinations.

Types of Logic Gates

- There are 7 types of Logic Gates as following:
 - 1) AND Gate
 - 2) OR Gate
 - 3) NOT Gate
 - 4) NAND Gate
 - 5) NOR Gate
 - 6) Exclusive OR Gate
 - 7) Exclusive NOR Gate