

# Boolean Algebra

## Course Content:

- 1. Representation of Data:** Number systems and codes, Representation of tin and signed integers, Fixed-point representation of real numbers, Floating point representation of real numbers, Representation of character data, Representation of signals
- 2. Switching Theory:** Laws of Boolean algebra, Theorems of Boolean algebra, switching functions, Methods for specification of switching functions - Truth table and Algebraic forms, Realization of functions using logic gates
- 3. Simplification of Boolean Expressions and Functions:** Algebraic methods, Canonical forms of Boolean functions, Minimization of functions using Karnaugh maps, minimization of functions using Quine-McClusky method