

Faculty of Engineering & Technology

Logic Design

Information :

Course Code : EED220

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Biomedical Engineering

Description :

Digital systems, binary numbers, and coded number systems. Boolean algebra, canonical and standard forms, and digital logic gates and their integrated circuits. Gate-Level Minimization, and the map method for simplification and implementation. Combinational logic circuits: Analysis procedure, design procedure, binary adder/subtractor, binary multiplier, magnitude comparator, decoders, encoders, and multiplexers. Sequential logic circuits: Latches and Flip-Flops, analysis of clocked sequential circuits, and design procedure. Registers, counters, Memory, memory decoding, and programmable devices. Selected applied design examples with standard integrated circuits (ICs).