

Digital Electronics	
Basic Logic	Sequential Logic
De Morgan's Laws	RS Flip-Flop by NAND Latch
Basic Gates: AND / OR / NOT	RS Flip-Flop by NOR Latch
Derived Gates: NAND / NOR / XOR	Clocked RS Latch by NAND
Derived XOR Gate	Clocked RS Flip-Flop by NAND
Combinational Logic	Clocked D Latch by NAND
Binary Addition-Half Adder / Full Adder	Clocked D Flip-Flop by NAND
Binary Subtraction-Half / Full Subtractor	Level Vs Edge Triggering
Multiplexer-Demultiplexer	JK Flip-Flop
Encoder	Conversion of Flip-Flop D by RS JK by D T by JK
Decimal to BCD Encoder	Counter
Decimal to Excess-3 Encoder	Asynchronous 4-Bit Up/Down Counter
Decimal to Gray Encoder	Up Counter
Decoder	Down Counter
BCD to Decimal Decoder	Synchronous 4-Bit Up/Down Counter
Seven Segment Decoder	Up Counter
Shift Register	Down Counter
Serial In Parallel Out Shift Register	Synchronous Decade Counter
Parallel In Serial Out Shift Register	4-Bit Johnson Counter

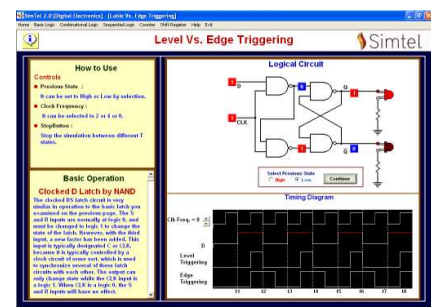
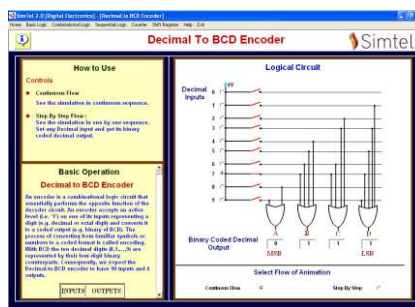
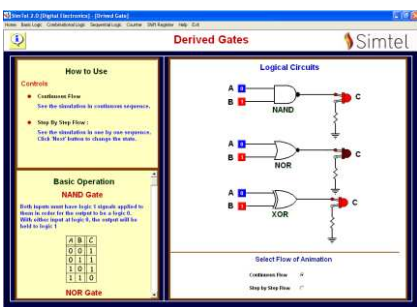
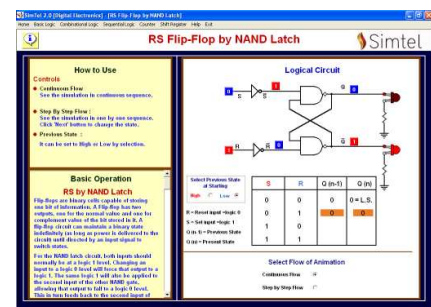
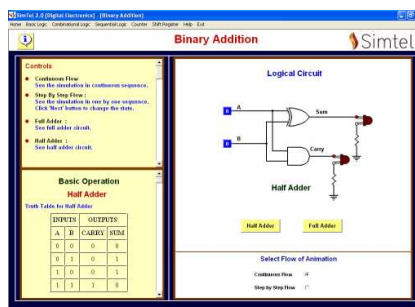
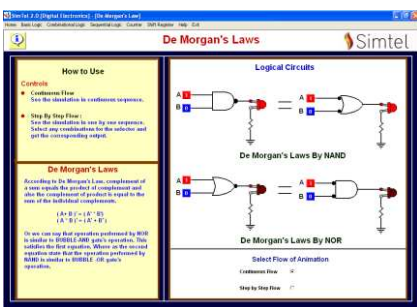
Copyright ©2009 Scientech Technologies Pvt Ltd

The most interesting subject of electronics is Digital Electronics. It shows us that everything from human voice to signals from space satellites can be expressed in terms of 1 and 0. This module of Simtel illustrates user the basic concepts of digital electronics. More emphasis is given on practical constraints of digital circuits. Simtel Digital Electronics contains simulations and animations on Boolean algebra, Logic gates, and Sequential circuits which explains their working and concepts in a manner that is clearer, interesting, and easier to understand.

Topics covered:

- ▶ Digital number system
- ▶ Boolean Algebra & Logic Circuits
- ▶ Digital Logic Gates
- ▶ Simplification of Boolean Functions
- ▶ Digital Combinational Logic
- ▶ Combinational Arithmetic Circuits
- ▶ Sequential Circuits
- ▶ Digital Logic Families

Software program windows:



Designed & Develop by
Scientech Technologies Pvt. Ltd.

94, Electronic Complex, Pardesipura, Indore- 452 010 India,
 ☎ +91-731- 4211100, ✉ info@scientech.bz, 🌐 www.ScientechWorld.com