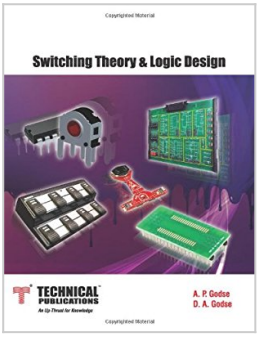

Switching Theory & Logic Design

By Mr. A P Godse, Mrs D A Godse

Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse

UNIT I (Chapter-1) Review of Number Systems : Representation of numbers of different radix, Conversion of numbers from one radix to another radix, r-1's complement and r's complement of unsigned numbers subtraction, Problem solving. Signed binary numbers, Different forms, Problem solving for subtraction. 4-bit codes : BCD, EXCESS-3, Alphanumeric codes, 9's complement, 2421, etc. UNIT II (Chapter-2) Logic Operation, Error Detection and Correction Codes : Basic logic operations NOT, OR, AND, Boolean theorems, Complement and dual of logical expressions, NAND and NOR Gates, EX-OR, EX-NOR Gates, Standard SOP and POS, Minimization of logic functions using theorems, Generation of self dual functions. Gray code, Error detection and error correction codes, Parity checking even parity, Odd parity, Hamming code, Multi-leveled AND-NOR realizations. Two level NAND-NAND and NOR-NOR realizations. Degenerative forms and multi-level realizations. UNIT III (Chapter-3) Minimization of Switching Functions : Minimization of switching functions using K-Map up to 6-variables, Tabular minimization, Minimal SOP and POS realization. Problem solving using K-map such as code converters binary multiplier etc. UNIT IV (Chapter-4) Combinational Logic Circuits-I : Design of half adder, Full adder, Half subtractor, Full subtractor, Applications of full adders, 4-bit binary adder, 4-bit binary subtractor, Adder-subtractor circuit, BCD adder circuit Excess-3 adder circuit, Look-a-head adder circuit. UNIT V (Chapter-5) Combinational Logic Circuits-II : Design of decoder, Demultiplexer, Higher order demultiplexing, Encoder, Multiplexer, Higher order multiplexer, Realization of Boolean functions using decoders and multiplexers, Priority encoder, Different code converter using full adders. UNIT VI (Chapter-6) Combinational Logic Circuits-III : PROM, PLA, PAL, Realization of switching functions using PROM, PLA and PAL; Comparison of PROM, PLA, and PAL, Programming tables of PROM, PLA and PAL. UNIT VII (Chapter-7) Sequential Circuits - I : Classification of sequential circuits (synchronous and asynchronous): basic flip-flops, Truth tables and excitation tables (NAND RS latch, NOR RS latch, RS flip-flop. JK flip-flop, T flip-flop, D flip-flop with reset and clear terminals).Conversion of flip-flop to flip-flop. Design of ripple counters, Design of synchronous counters, Johnson counters, Ring counters. Design of registers, Buffer register, Control buffer register, Shift register, Bi-directional shift register, Universal shift register. UNIT VIII (Chapter-8) Sequential Circuits-II : Finite state machine, Capabilities and limitations, Analysis of clocked sequential circuits, Design procedures,

Reduction of state tables and state assignment. Realization of circuits using various flip-flops. Mealy to Moore conversion and vice-versa.

Switching Theory & Logic Design

By Mr. A P Godse, Mrs D A Godse

Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse

UNIT I (Chapter-1) Review of Number Systems : Representation of numbers of different radix, Conversion of numbers from one radix to another radix, r-1's complement and r's complement of unsigned numbers subtraction, Problem solving. Signed binary numbers, Different forms, Problem solving for subtraction. 4-bit codes : BCD, EXCESS-3, Alphanumeric codes, 9's complement, 2421, etc. UNIT II (Chapter-2) Logic Operation, Error Detection and Correction Codes : Basic logic operations NOT, OR, AND, Boolean theorems, Complement and dual of logical expressions, NAND and NOR Gates, EX-OR, EX-NOR Gates, Standard SOP and POS, Minimization of logic functions using theorems, Generation of self dual functions. Gray code, Error detection and error correction codes, Parity checking even parity, Odd parity, Hamming code, Multi-leveled AND-NOR realizations. Two level NAND-NAND and NOR-NOR realizations. Degenerative forms and multi-level realizations. UNIT III (Chapter-3) Minimization of Switching Functions : Minimization of switching functions using K-Map up to 6-variables, Tabular minimization, Minimal SOP and POS realization. Problem solving using K-map such as code converters binary multiplier etc. UNIT IV (Chapter-4) Combinational Logic Circuits-I : Design of half adder, Full adder, Half subtractor, Full subtractor, Applications of full adders, 4-bit binary adder, 4-bit binary subtractor, Adder-subtractor circuit, BCD adder circuit Excess-3 adder circuit, Look-a-head adder circuit. UNIT V (Chapter-5) Combinational Logic Circuits-II : Design of decoder, Demultiplexer, Higher order demultiplexing, Encoder, Multiplexer, Higher order multiplexer, Realization of Boolean functions using decoders and multiplexers, Priority encoder, Different code converter using full adders. UNIT VI (Chapter-6) Combinational Logic Circuits-III : PROM, PLA, PAL, Realization of switching functions using PROM, PLA and PAL; Comparison of PROM, PLA, and PAL, Programming tables of PROM, PLA and PAL. UNIT VII (Chapter-7) Sequential Circuits - I : Classification of sequential circuits (synchronous and asynchronous): basic flip-flops, Truth tables and excitation tables (NAND RS latch, NOR RS latch, RS flip-flop. JK flip-flop, T flip-flop, D flip-flop with reset and clear terminals).Conversion of flip-flop to flip-flop. Design of ripple counters, Design of synchronous counters, Johnson counters, Ring counters. Design of registers, Buffer register, Control buffer register, Shift register, Bi-directional shift register, Universal shift register. UNIT VIII (Chapter-8) Sequential Circuits-II : Finite state machine, Capabilities and limitations, Analysis of clocked sequential circuits, Design procedures, Reduction of state tables and state assignment. Realization of circuits using various flip-flops. Mealy to Moore conversion and vice-versa.

Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse Bibliography

- Sales Rank: #14012135 in Books
- Published on: 2012-12-07
- Original language: English
- Dimensions: 9.69" h x 1.35" w x 7.44" l, 1.83 pounds
- Binding: Paperback
- 596 pages

Editorial Review

Users Review

From reader reviews:

Guadalupe Baxter:

Do you have favorite book? If you have, what is your favorite's book? Reserve is very important thing for us to learn everything in the world. Each guide has different aim or perhaps goal; it means that e-book has different type. Some people really feel enjoy to spend their time for you to read a book. They may be reading whatever they consider because their hobby is usually reading a book. What about the person who don't like reading a book? Sometime, person feel need book if they found difficult problem or even exercise. Well, probably you should have this Switching Theory & Logic Design.

Bethany Archie:

This Switching Theory & Logic Design are reliable for you who want to certainly be a successful person, why. The reason of this Switching Theory & Logic Design can be one of several great books you must have will be giving you more than just simple reading food but feed anyone with information that possibly will shock your preceding knowledge. This book is actually handy, you can bring it just about everywhere and whenever your conditions in the e-book and printed types. Beside that this Switching Theory & Logic Design giving you an enormous of experience for instance rich vocabulary, giving you tryout of critical thinking that we realize it useful in your day activity. So , let's have it and enjoy reading.

Robert Lyman:

Reading a reserve tends to be new life style on this era globalization. With reading you can get a lot of information that can give you benefit in your life. Using book everyone in this world can certainly share their idea. Guides can also inspire a lot of people. A great deal of author can inspire their particular reader with their story or their experience. Not only situation that share in the guides. But also they write about the data about something that you need example of this. How to get the good score toefl, or how to teach your kids, there are many kinds of book which exist now. The authors these days always try to improve their talent in writing, they also doing some study before they write to their book. One of them is this Switching Theory & Logic Design.

Glenn Herrera:

Many people spending their period by playing outside having friends, fun activity together with family or just watching TV the entire day. You can have new activity to spend your whole day by looking at a book. Ugh, do you consider reading a book really can hard because you have to use the book everywhere? It fine

you can have the e-book, getting everywhere you want in your Mobile phone. Like Switching Theory & Logic Design which is having the e-book version. So , try out this book? Let's find.

Read Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse for online ebook

Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse books to read online.

Online Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse ebook PDF download

Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse Doc

Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse Mobipocket

Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse EPub

ACWYZGMD0S7: Switching Theory & Logic Design By Mr. A P Godse, Mrs D A Godse