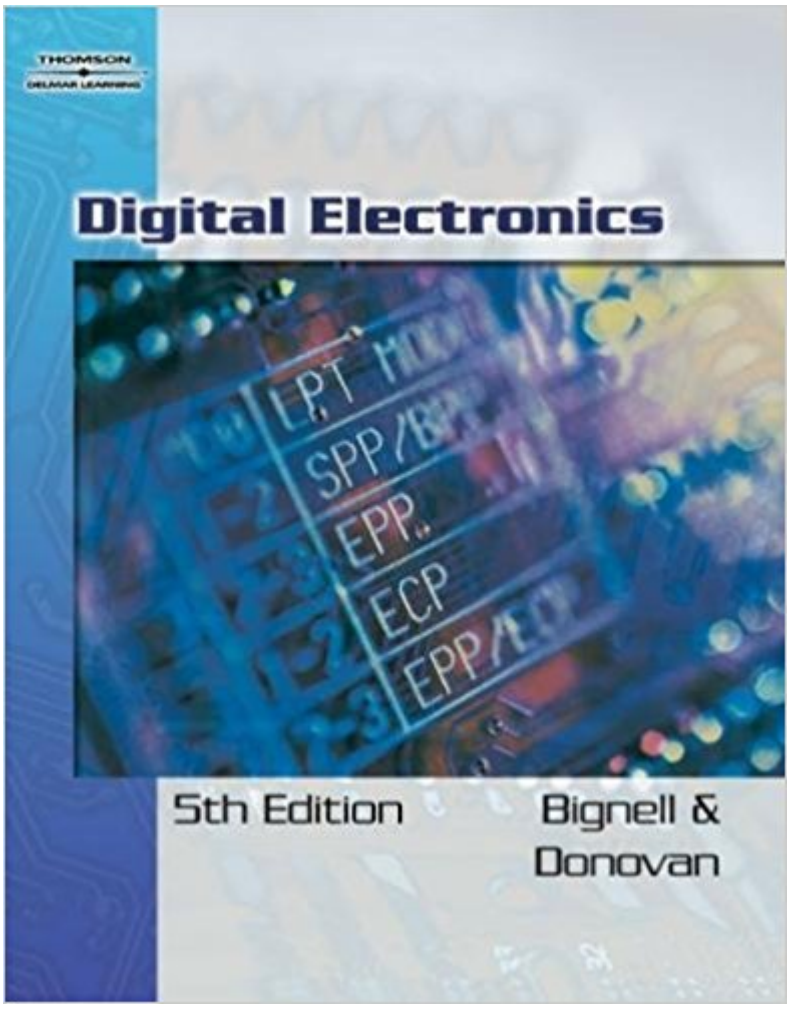
Digital Electronics



Synopsis

For the latest digital principles, techniques, and hardware, look no further than this up-to-date fifth edition! Practical, easy-to-understand coverage of the basics of digital design is provided, along with information on the necessary hardware to implement the design, and VHDL programming language for programming PLD devices. Everything from basic programming concepts to microprocessors and microcontrollers is featured, with updated coverage of CMOS sub-families and IC packages that reflect recent industry changes. The only book of its kind that includes both hands-on labs and MultiSIM computer-simulated labs, Digital Electronics, 5th Edition provides users with opportunities to apply theory in real-world situations while becoming familiar with computer simulation technology.

Book Information

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Customer Reviews

Number Systems. Logic Gates. Waveforms and Boolean Algebra. Exclusive_OR Gates. Adders. Specifications and Open-Collector Gates. Flip-flops. Master-Slave D and JK Flip-flops. Shift Registers. Counters. Schmitt-Trigger Inputs and Clocks. One-shots. Digital-to-Analog and Analog-to-Digital Conversions. Decoders, Multiplexers, Demultipliers, Demultiplexers, and Displays. Tri-State Gates and Interfacing to High Current. Memories and Introduction to Microcomputers.

Features: The basics of digital electronics are covered in a concise, easy-to-read style. Hands-on labs and computer-simulated labs at the ends of chapters give you the opportunity to troubleshoot in traditional lab settings and in labs using Electronics Workbench. The book has up-to-date coverage

of Programmable Logic Devices, GALs, Intel, Motorola, and microcontrollers. Electronics Workbench exercises help you become familiar with computer simulation technology. New features such as "Digital Applications" provide interesting information on new and relevant technologies and practical tips. The integrated coverage of Programmable Logic Devices keeps user current with the latest digital technologies and shows how they are programmed in each chapter. New Troubleshooting sections in each chapter emphasize troubleshooting procedures and techniques so that you can develop and master this important skill. --This text refers to an out of print or unavailable edition of this title.

Most comprehensive text book I've ever owned on digital electronics!This book is an excellent reference on digital electronics for the studentor engineering technician on the job.

good book

This was a book that my son wanted,so I got it for him as a gift. He was very happy to receive it and says it was just what he needed.

I just finished a college level digital electronics course based on this text. The approach in this book is very difficult. The initial material on number systems and basic gates is OK. Once you get into circuits and devices, it is increasingly difficult to follow. The authors attempt to explain complex circuits by delving through the details of the internal circuits without providing an adequate overview first. It's kind of like trying to understand an elephant by examing its skin under a magnifying glass.The lab book that goes along with this text is a horror show. Breadboarding the complex circuits is time consuming and subject to error. That winds up being the focus of the exercise; just getting the circuits to operate. There's not near enough emphasis on examining operation of the circuits once they're built. Students would be better served by a course that teaches fundamentals very thoroughly, instead of taking a cursory approach to teaching a whole bunch of stuff. There are also numerous errors in the lab book, which makes it even more frustrating.I've spent some time looking for a good course on the subject and have yet to find one. It just doesn't seem as if acadameia has figured out how to deal with this subject.

This volume by Bignell and Donovan provides a foundational understanding for the beginning student in digital electronics. The theoretical and practical combine to lend a comprehensive

introduction to the field. Each edition has offered expanded coverage that keep the contents current and relevant to the most recent discussions and advances. Clear objectives and a carefully thought out structure make the volume a pedagogical treasure.

Even more helpful than edition 3, and I didn't think that possible.