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ISBN	1-292-05390-9
Edizione	[First edition, Pearson new international edition.]
Descrizione fisica	1 online resource (932 pages) : illustrations
Collana	Always learning
Disciplina	621.381
Soggetti	Digital electronics - Data processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Cover -- Table of Contents -- 1. Number Systems and Codes -- 2. Digital Electronic Signals and Switches -- 3. Basic Logic Gates -- 4. Programmable Logic Devices: CPLDs and FPGAs with VHDL Design -- 5. Boolean Algebra and Reduction Techniques -- 6. Exclusive-OR and Exclusive-NOR Gates -- 7. Arithmetic Operations and Circuits -- 8. Code Converters, Multiplexers, and Demultiplexers -- 9. Logic Families and Their Characteristics -- 10. Flip-Flops and Registers -- 11. Practical Considerations for Digital Design -- 12. Counter Circuits and VHDL State Machines -- 13. Shift Registers -- 14. Multivibrators and the 555 Timer -- 15. Interfacing to the Analog World -- 16. Semiconductor, Magnetic, and Optical Memory -- 17. Microprocessor Fundamentals -- Appendix: WWW Sites -- Appendix: Manufacturers' Data Sheets -- Appendix: Explanation of the IEEE/IEC Standard for Logic Symbols (Dependency Notation) -- Appendix: VHDL Language Reference -- Appendix: Review of Basic Electricity Principles -- Appendix: Schematic Diagrams for Chapter-End Problems -- Index.
Sommario/riassunto	For Digital Electronics courses requiring a comprehensive approach to Digital concepts with an emphasis on PLD programming and the integration of the latest Quartus II software. This text presents a step-by-step, practical approach to an enhanced and easy understanding of digital circuitry fundamentals with coverage of CPLD's, VHDL and Altera's Quartus II software. Coverage begins with the basic logic gates used to perform arithmetic operations, and

proceeds up through sequential logic and memory circuits used to interface to modern PCs. The author combines extensive teaching experience with practical examples in order to bring entry level students up to speed in this emerging field.
