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Titolo	Digital electronics : a practical approach with VHDL / / William Kleitz
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ISBN	1-292-03804-7
Edizione	[Ninth, Pearson new international edition.]
Descrizione fisica	1 online resource (934 pages) : illustrations (some color), tables, graphs
Collana	Always learning
Disciplina	621.381
Soggetti	Digital electronics
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 -- Appendix: 8051 Instruction Set -- TTL Pin Configurations -- Index -- 1 -- 4 -- 5.
Sommario/riassunto	For courses in Digital Electronics, Digital Systems, and Digital Design. Digital Electronics: A Practical Approach with VHDL, Ninth Edition, offers students an easy-to-learn-from resource that emphasizes practical application of circuit design, operation, and troubleshooting. Over 1,000 annotated color figures help explain circuit operation or emphasize critical components and input/output

criteria. Throughout the text, the author employs a step-by-step approach that takes students from theory to example to application of the concepts. Over all nine editions, Kleitz has consistently sought out student feedback, along with his own experience of teaching the course in-class and on-line, to improve each new edition.