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Sommario/riassunto	This textbook teaches VHDL using system examples combined with programmable logic and supported by laboratory exercises. While other textbooks concentrate only on language features, Circuit Design with VHDL offers a fully integrated presentation of VHDL and design concepts by including a large number of complete design examples, illustrative circuit diagrams, a review of fundamental design concepts, fully explained solutions and simulation results. The text presents the information concisely yet completely, discussing in detail all indispensable features of the VHDL synthesis. The book is organised in a clear progression, with the first part covering the circuit level, treating foundations of VHDL and fundamental coding, and the second part covering the system level (units that might be located in a library for code sharing, reuse and partitioning), expanding upon the earlier chapters to discuss system coding. techniques of VHDL, including code structure, data types, operators and attributes, concurrent and sequential statements and code, objects (signals, variables and constants), design of finite state machines and examples of additional circuit designs. Part II, System Design, builds on the material already presented, adding elements intended mainly for library allocation; it examines packages and components, functions and procedures and

additional examples of system design. Appendixes on programmable logic devices (PLDs/FPGAs) and synthesis tools follow Part II. The book's highly original approach of teaching through extensive system examples as well as its unique integration of VHDL and design make it suitable both for use by students in computer science and electrical engineering.