1. Record Nr. UNINA9910337641803321 Autore LaMeres Brock J Titolo Quick Start Guide to VHDL / / by Brock J. LaMeres Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 3-030-04516-1 **ISBN** Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XII, 212 p. 161 illus., 139 illus. in color.) Disciplina 621.392 Soggetti Electronic circuits Microprocessors Logic design Circuits and Systems **Processor Architectures** Logic Design Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia The Modern Digital Design Flow -- VHDL Constructs -- Modeling Nota di contenuto Concurrent Functionality in VHDL -- Structural Design & Hierarchy --Modeling Sequential Functionality -- Packages -- Test Benches --Modeling Sequential Storage & Registers -- Modeling Finite State Machines -- Modeling Counters -- Modeling Memory -- Computer System Design -- Appendix A: List of Worked Examples -- . Sommario/riassunto This textbook provides a starter's guide to VHDL. This book can be used in conjunction with a one-semester course in Digital Systems Design or on its own for designers who only need an introduction to the language. This book is designed to provide a bottoms-up approach to learning the VHDL language. This design supports a course in which foundational knowledge is covered before moving into advanced topics. However, this design also supports use as a reference manual. The author has designed the presentation with learning goals and assessment at its core. Each section addresses a specific learning outcome that the student should be able to "do" after its completion.

The concept checks and exercise problems provide a rich set of

assessment tools to measure student performance on each outcome. A

comprehensive coverage of the basic capability of VHDL; Emphasizes examples from which students can learn: contains a solved example for nearly every section in the book; Includes more than 400 exercise problems, as well as concept check questions for each section, tied directly to specific learning outcomes.