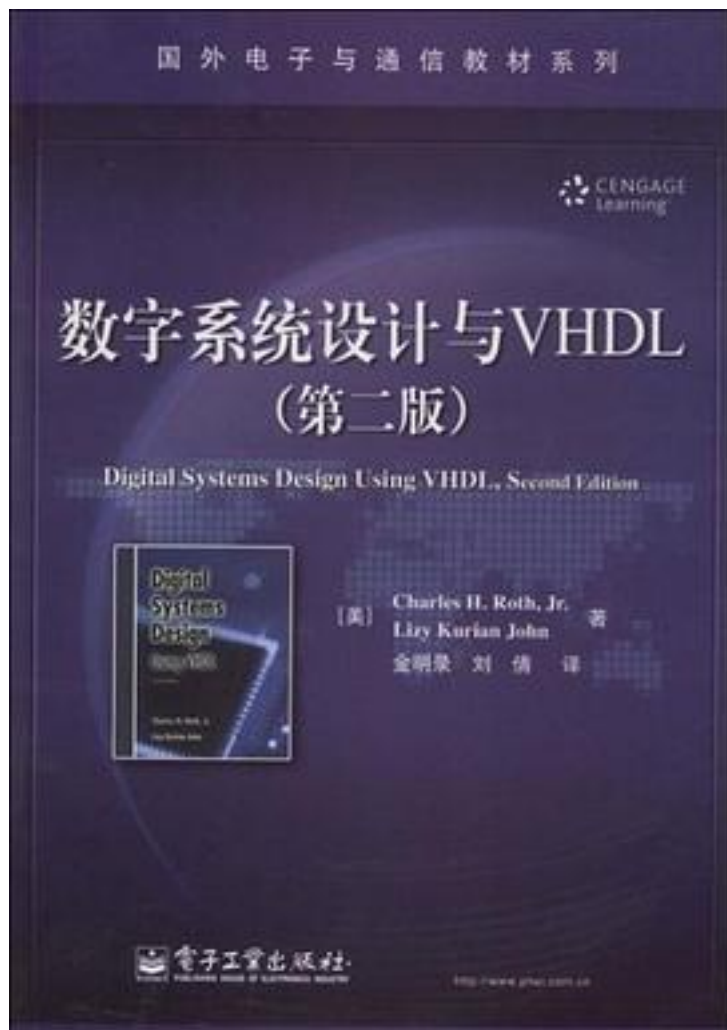


数字系统设计与VHDL



[数字系统设计与VHDL_下载链接1](#)

著者:[美]Charles H.Roth, Jr

出版者:电子工业出版社

出版时间:2010-6

装帧:平装

isbn:9787121108303

《数字系统设计与VHDL(英文版)》对原著进行了结构调整，使之更适合作为本科双语教

学教材。第1章首先回顾了逻辑设计基本原理，第2章和第3章分别讲解了VHDL基本知识和高级主题，第4章为简单设计实例，第5章讨论状态机，第6章讨论浮点数运算，第7章讨论硬件测试和可测试性设计，第8章给出了一些高级设计实例。全书将工业标准硬件描述语言VHDL和数字系统设计融为一体，较好地实现了控制逻辑和运算部件的整合设计，并给出了多个设计实例，便于学生在实践中得到提高。

《数字系统设计与VHDL(英文版)》适合作为高等院校电子、电气和计算机专业本科生数字系统设计类课程的双语教学教材，也适合作为相关工程技术人员参考书。

作者介绍:

美国斯坦福大学博士，1961年就职于得克萨斯大学奥斯汀分校，目前是电气与计算机工程系教授。他的授课和研究领域涵盖了数字系统理论和设计、微计算机系统和VHDL应用，出版了4本著作。

目录:

Chapter1ReviewofLogicDesignFundamentals1.1CombinationalLogic1.2BooleanAlgebra and Algebraic Simplification1.3KarnaughMaps1.4DesigningwithNANDandNORGates1.5 HazardsinCombinationalCircuits1.6Flip-FlopsandLatches1.7MealySequentialCircuit Design1.8MooreSequentialCircuitDesign1.9EquivalentStatesandReductionofStateTables1. 10SequentialCircuitTiming1.11TristateLogicandBusses1.12ProblemsChapter2IntroductiontoVHDL2.1Computer-AidedDesign2.2HardwareDescriptionLanguages2.3VHDLDescriptionofCombinationalCircuits2.4VHDLModules2.5SequentialStatementsandVHDLProcesses2.6ModelingFlip-FlopsUsingVHDLProcesses2.7ProcessesUsingWaitStatements2. 8TwoTypesofVHDLDelays:TransportandInertialDelays2.9Compilation,Simulation,andSynthesisofVHDLCode2.10VHDLDataTypesandOperators2.11SimpleSynthesisExamples2. 12VHDLModelsforMultiplexers2.13VHDLLibraries2.14ModelingRegistersandCountersUsingVHDLProcesses2.15BehavioralandStructuralVHDL2.16Variables,Signals,andConstants2.17Arrays2.18LoopsinVHDL2.19AssertandReportStatements2.20ProblemsChapter3AdditionalTopicsinVHDL3.1VHDLFunctions3.2VHDLProcedures3.3Attributes3.4CreatingOverloadedOperators3.5Multi-ValuedLogicandSignalResolution3.6TheIEEE9-ValuedLogicSystem3.7SRAMModelUsingIEEE11643.8ModelforSRAMRead/WriteSystem3.9Generics3.10NamedAssociation3.11GenerateStatements3.12FilesandTEXTIO3.13ProblemsChapter4DesignExamples4.1BCDtoSeven-SegmentDisplayDecoder4.2ABCDAdder4.332-Bit Adders4.4TrafficLightController4.5StateGraphsforControlCircuits4.6ScoreboardandController4.7SynchronizationandDebouncing4.8AAdd-and-ShiftMultiplier4.9ArrayMultiplier4.10ASignedInteger/FractionMultiplier4.11KeypadScanner4.12BinaryDividers4.13ProblemsChapter5SMChartsandMicroprogramming5.1StateMachineCharts5.2DerivationofSMCharts5.3RealizationofSMCharts5.4ImplementationoftheDiceGame5.5ProblemsChapter6Floating-PointArithmetic6.1RepresentationofFloating-PointNumbers6.2Floating-PointMultiplication6.3Floating-PointAddition6.4OtherFloating-PointOperations6.5ProblemsChapter7HardwareTestingandDesignforTestability7.1TestingCombinationalLogic7. 2TestingSequentialLogic7.3ScanTesting7.4BoundaryScan7.5Built-InSelf-Test7.6ProblemsChapter8AdditionalDesignExamples8.1DesignofaWristwatch8.2MemoryTimingModels8.3AUniversalAsynchronousReceiverTransmitter8.4ProblemsAppendixAVH

• • • • • [\(收起\)](#)

[数字系统设计与VHDL_下载链接1](#)

标签

英语

电子学

中国

2010

评论

[数字系统设计与VHDL_下载链接1](#)

书评

[数字系统设计与VHDL_下载链接1](#)