

APPENDICES THAT GIVE TUTORIALS ON THE USE OF QUARTUS II SOFTWARE

INTRODUCTION TO LOGIC AND COMPUTER DESIGN ALAN B. MARCOVITZ 2007-03-16 AN IDEAL COMPANION TO ANY FIRST COURSE IN DIGITAL LOGIC, THIS TITLE INCLUDES AN EXTENSIVE SET OF EXAMPLES WELL INTEGRATED INTO THE BODY OF THE TEXT, GIVING STUDENTS MULTIPLE OPPORTUNITIES TO UNDERSTAND THE TOPICS BEING PRESENTED.

UNCERTAIN RULE-BASED FUZZY SYSTEMS JERRY M. MENDEL 2017-05-17 THE SECOND EDITION OF THIS TEXTBOOK PROVIDES A FULLY UPDATED APPROACH TO FUZZY SETS AND SYSTEMS THAT CAN MODEL UNCERTAINTY — I.E., “TYPE-2” FUZZY SETS AND SYSTEMS. THE AUTHOR DEMONSTRATES HOW TO OVERCOME THE LIMITATIONS OF CLASSICAL FUZZY SETS AND SYSTEMS, ENABLING A WIDE RANGE OF APPLICATIONS FROM TIME-SERIES FORECASTING TO KNOWLEDGE MINING TO CONTROL. IN THIS NEW EDITION, A BOTTOM-UP APPROACH IS PRESENTED THAT BEGINS BY INTRODUCING CLASSICAL (TYPE-1) FUZZY SETS AND SYSTEMS, AND THEN EXPLAINS HOW THEY CAN BE MODIFIED TO HANDLE UNCERTAINTY. THE AUTHOR COVERS FUZZY RULE-BASED SYSTEMS – FROM TYPE-1 TO INTERVAL TYPE-2 TO GENERAL TYPE-2 – IN ONE VOLUME. FOR HANDS-ON EXPERIENCE, THE BOOK PROVIDES INFORMATION ON ACCESSING MATLAB AND JAVA SOFTWARE TO COMPLEMENT THE CONTENT. THE BOOK FEATURES A FULL SUITE OF CLASSROOM MATERIAL.

THE LOGIC BOOK MERRIE BERGMANN 2008-07-30 THIS LEADING TEXT FOR SYMBOLIC OR FORMAL LOGIC COURSES PRESENTS ALL TECHNIQUES AND CONCEPTS WITH CLEAR, COMPREHENSIVE EXPLANATIONS, AND INCLUDES A WEALTH OF CAREFULLY CONSTRUCTED EXAMPLES. ITS FLEXIBLE ORGANIZATION (WITH ALL CHAPTERS COMPLETE AND SELF-CONTAINED) ALLOWS INSTRUCTORS THE FREEDOM TO COVER THE TOPICS THEY WANT IN THE ORDER THEY CHOOSE.

TOOLS FOR STRUCTURED DESIGN MARILYN BOHL 1993 THE AUTHOR’S OBJECTIVE IS TO ANALYZE A PROBLEM AND EXPRESS ITS SOLUTION IN SUCH A WAY THAT THE COMPUTER CAN BE DIRECTED TO FOLLOW THE PROBLEM-SOLVING PROCEDURE. EMPHASIS IS PLACED ON MAINTAINING AN OVERALL STRUCTURE IN PROGRAM DESIGN, AND PSEUDO-CODE IS SHOWN AS AN ALTERNATIVE OR SUPPLEMENT TO FLOW-CHARTING. ANALYZING TECHNIQUES OF TOP-DOWN MODULAR PROGRAM DEVELOPMENT FOSTERS THE READER’S INQUISITIVENESS. IN THIS FIFTH EDITION, MUCH NEW INFORMATION HAS BEEN ADDED, INCLUDING A NEW CHAPTER ON MODULARIZATION. THIS BOOK WILL EASILY FIT AS THE CORE TEXT FOR ANY COURSE COVERING PROGRAMMING LOGIC AND DESIGN OR STRUCTURED PROGRAMMING.

ELECTRONIC LOGIC CIRCUITS J. GIBSON 2013-01-11 MOST BRANCHES OF ORGANIZING UTILIZE DIGITAL ELECTRONIC SYSTEMS. THIS BOOK INTRODUCES THE DESIGN OF SUCH SYSTEMS USING BASIC LOGIC ELEMENTS AS THE COMPONENTS. THE MATERIAL IS PRESENTED IN A STRAIGHTFORWARD MANNER SUITABLE FOR STUDENTS OF ELECTRONIC ENGINEERING AND COMPUTER SCIENCE. THE BOOK IS ALSO OF USE TO ENGINEERS IN RELATED DISCIPLINES WHO REQUIRE A CLEAR INTRODUCTION TO LOGIC CIRCUITS. THIS THIRD EDITION HAS BEEN REVISED TO ENCOMPASS THE MOST RECENT ADVANCES IN TECHNOLOGY AS WELL AS THE LATEST TRENDS IN COMPONENTS AND NOTATION. IT INCLUDES A WIDE COVERAGE OF APPLICATION SPECIFIC INTEGRATED CIRCUITS (ASICs), MANY WORKED EXAMPLES AND A STEP-BY-STEP LOGICAL AND PRACTICAL APPROACH.

CONFERENCE RECORD 1985

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CIRCUIT DESIGN WITH VHDL, THIRD EDITION VOLNEI A. PEDRONI 2020-04-14 A COMPLETELY UPDATED AND EXPANDED COMPREHENSIVE TREATMENT OF VHDL AND ITS APPLICATIONS TO THE DESIGN AND SIMULATION OF REAL, INDUSTRY-STANDARD CIRCUITS. THIS COMPREHENSIVE TREATMENT OF VHDL AND ITS APPLICATIONS TO THE DESIGN AND SIMULATION OF REAL, INDUSTRY-STANDARD CIRCUITS HAS BEEN COMPLETELY UPDATED AND EXPANDED FOR THE THIRD EDITION. NEW FEATURES INCLUDE ALL VHDL-2008 CONSTRUCTS, AN EXTENSIVE REVIEW OF DIGITAL CIRCUITS, RTL ANALYSIS, AND AN UNEQUALED COLLECTION OF VHDL EXAMPLES AND EXERCISES. THE BOOK FOCUSES ON THE USE OF VHDL RATHER THAN SOLELY ON THE LANGUAGE, WITH AN EMPHASIS ON DESIGN EXAMPLES AND LABORATORY EXERCISES. THE THIRD EDITION BEGINS WITH A DETAILED REVIEW OF DIGITAL CIRCUITS (COMBINATORIAL, SEQUENTIAL, STATE MACHINES, AND FPGAs), THUS PROVIDING A SELF-CONTAINED SINGLE REFERENCE FOR THE TEACHING OF DIGITAL CIRCUIT DESIGN WITH VHDL. IN ITS COVERAGE OF VHDL-2008, IT MAKES A CLEAR DISTINCTION BETWEEN VHDL FOR SYNTHESIS AND VHDL FOR SIMULATION. THE TEXT OFFERS COMPLETE VHDL CODES IN EXAMPLES AS WELL AS SIMULATION RESULTS AND COMMENTS. THE SIGNIFICANTLY EXPANDED EXAMPLES AND EXERCISES INCLUDE MANY NOT PREVIOUSLY PUBLISHED, WITH MULTIPLE PHYSICAL DEMONSTRATIONS MEANT TO INSPIRE AND MOTIVATE STUDENTS. THE BOOK IS SUITABLE FOR UNDERGRADUATE AND GRADUATE STUDENTS IN VHDL AND DIGITAL CIRCUIT DESIGN, AND CAN BE USED AS A PROFESSIONAL REFERENCE FOR VHDL PRACTITIONERS. IT CAN ALSO SERVE AS A TEXT FOR DIGITAL VLSI IN-HOUSE OR ACADEMIC COURSES.

DIGITAL SYSTEM DESIGN USING VHDL RISHABH ANAND 2013 THE BOOK COVERS THE COMPLETE SYLLABUS OF SUBJECT AS SUGGESTED BY MOST OF THE UNIVERSITIES IN INDIA. GENERIC VHDL CODE IS TAUGHT AND USED THROUGH OUT THE BOOK SO THAT DIFFERENT COMPANIES. VHDL TOOLS CAN BE USED IF DESIRED. MOVING FROM THE UNKNOWN IN A LOGICAL MANNER. SUBJECT MATTER IN EACH CHAPTER DEVELOPS SYSTEMATICALLY FROM INCEPTIONS. LARGE NUMBER OF CAREFULLY SELECTED WORKED EXAMPLES IN SUFFICIENT DETAILS. NO OTHER REFERENCE IS REQUIRED. IDEALLY SUITED FOR SELF-STUDY.

REINFORCEMENT LEARNING, SECOND EDITION RICHARD S. SUTTON 2018-11-13 THE SIGNIFICANTLY EXPANDED AND UPDATED NEW EDITION OF A WIDELY USED TEXT ON REINFORCEMENT LEARNING, ONE OF THE MOST ACTIVE RESEARCH AREAS IN ARTIFICIAL INTELLIGENCE. REINFORCEMENT LEARNING, ONE OF THE MOST ACTIVE RESEARCH AREAS IN ARTIFICIAL INTELLIGENCE, IS A COMPUTATIONAL APPROACH TO LEARNING WHEREBY AN AGENT TRIES TO MAXIMIZE THE TOTAL AMOUNT OF REWARD IT RECEIVES WHILE INTERACTING WITH A COMPLEX, UNCERTAIN ENVIRONMENT. IN REINFORCEMENT LEARNING, RICHARD SUTTON AND ANDREW BARTO PROVIDE A CLEAR AND SIMPLE ACCOUNT OF THE FIELD’S KEY IDEAS AND ALGORITHMS. THIS SECOND EDITION HAS BEEN SIGNIFICANTLY EXPANDED AND UPDATED, PRESENTING NEW TOPICS AND UPDATING COVERAGE OF OTHER TOPICS. LIKE THE FIRST EDITION, THIS SECOND EDITION FOCUSES ON CORE ONLINE LEARNING ALGORITHMS, WITH THE MORE

MATHEMATICAL MATERIAL SET OFF IN SHADED BOXES. PART I COVERS AS MUCH OF REINFORCEMENT LEARNING AS POSSIBLE WITHOUT GOING BEYOND THE TABULAR CASE FOR WHICH EXACT SOLUTIONS CAN BE FOUND. MANY ALGORITHMS PRESENTED IN THIS PART ARE NEW TO THE SECOND EDITION, INCLUDING UCB, EXPECTED SARSA, AND DOUBLE LEARNING. PART II EXTENDS THESE IDEAS TO FUNCTION APPROXIMATION, WITH NEW SECTIONS ON SUCH TOPICS AS ARTIFICIAL NEURAL NETWORKS AND THE FOURIER BASIS, AND OFFERS EXPANDED TREATMENT OF OFF-POLICY LEARNING AND POLICY-GRADIENT METHODS. PART III HAS NEW CHAPTERS ON REINFORCEMENT LEARNING’S RELATIONSHIPS TO PSYCHOLOGY AND NEUROSCIENCE, AS WELL AS AN UPDATED CASE-STUDIES CHAPTER INCLUDING ALPHAGO AND ALPHAGO ZERO, ATARI GAME PLAYING, AND IBM WATSON’S WAGERING STRATEGY. THE FINAL CHAPTER DISCUSSES THE FUTURE SOCIETAL IMPACTS OF REINFORCEMENT LEARNING.

LOGIC FUNCTIONS AND EQUATIONS BERND STEINBACH 2022-03-21 THE GREATLY EXPANDED AND UPDATED 3RD EDITION OF THIS TEXTBOOK OFFERS THE READER A COMPREHENSIVE INTRODUCTION TO THE CONCEPTS OF LOGIC FUNCTIONS AND EQUATIONS AND THEIR APPLICATIONS ACROSS COMPUTER SCIENCE AND ENGINEERING. THE AUTHORS’ APPROACH EMPHASIZES A THOROUGH UNDERSTANDING OF THE FUNDAMENTAL PRINCIPLES AS WELL AS NUMERICAL AND COMPUTER-BASED SOLUTION METHODS. THE BOOK PROVIDES INSIGHT INTO APPLICATIONS ACROSS BINARY ARITHMETIC, CODING, COMPLEXITY, LOGIC DESIGN, DIGITAL CIRCUITS PROGRAMMING, COMPUTER ARCHITECTURE, AND ARTIFICIAL INTELLIGENCE. UPDATED THROUGHOUT, SOME MAJOR ADDITIONS FOR THE 3RD EDITION INCLUDE: AN EXPANDED INTRODUCTORY SECTION ON LOGIC EQUATIONS; A NEW CHAPTER ON SETS, LATTICES, AND CLASSES OF LOGIC FUNCTIONS; A NEW CHAPTER ABOUT SAT-PROBLEMS; A NEW CHAPTER ABOUT METHODS TO SOLVE EXTREMELY COMPLEX PROBLEMS; AND AN EXPANDED SECTION WITH NEW DECOMPOSITION METHODS UTILIZING THE BOOLEAN DIFFERENTIAL CALCULUS EXTENDED TO LATTICES OF LOGIC FUNCTIONS. THE XBOOLE-MONITOR XBM 2 SOFTWARE IS USED TO SOLVE THE EXERCISES; IN THIS WAY THE TIME-CONSUMING AND ERROR-PRONE MANIPULATION ON THE BIT LEVEL IS MOVED TO AN ORDINARY PC, MORE REALISTIC TASKS CAN BE SOLVED, AND THE CHALLENGES OF THINKING ABOUT ALGORITHMS LEADS TO A HIGHER LEVEL OF EDUCATION.

ALAN B MARCOVITZ 2009-01-09 INTRODUCTION TO LOGIC DESIGN BY ALAN MARCOVITZ IS INTENDED FOR THE FIRST COURSE IN LOGIC DESIGN, TAKEN BY COMPUTER SCIENCE, COMPUTER ENGINEERING, AND ELECTRICAL ENGINEERING STUDENTS. AS WITH THE PREVIOUS EDITIONS, THIS EDITION HAS A CLEAR PRESENTATION OF FUNDAMENTALS AND AN EXCEPTIONAL COLLECTION OF EXAMPLES, SOLVED PROBLEMS AND EXERCISES. THE TEXT INTEGRATES LABORATORY EXPERIENCES, BOTH HARDWARE AND COMPUTER SIMULATION, WHILE NOT MAKING THEM MANDATORY FOR FOLLOWING THE MAIN FLOW OF THE CHAPTERS. DESIGN IS EMPHASIZED THROUGHOUT, AND SWITCHING ALGEBRA IS DEVELOPED AS A TOOL FOR ANALYZING AND IMPLEMENTING DIGITAL SYSTEMS. THE PRESENTATION INCLUDES EXCELLENT COVERAGE OF MINIMIZATION OF COMBINATIONAL CIRCUITS, INCLUDING MULTIPLE OUTPUT ONES, USING THE KARNAUGH MAP AND ITERATED CONSENSUS. THERE ARE A NUMBER OF EXAMPLES OF THE DESIGN OF LARGER SYSTEMS, BOTH COMBINATIONAL AND SEQUENTIAL, USING MEDIUM SCALE INTEGRATED CIRCUITS AND PROGRAMMABLE LOGIC DEVICES. THE THIRD EDITION FEATURES TWO CHAPTERS ON SEQUENTIAL SYSTEMS. THE FIRST CHAPTER COVERS ANALYSIS OF SEQUENTIAL SYSTEMS AND THE SECOND COVERS DESIGN. COMPLETE COVERAGE OF THE ANALYSIS AND DESIGN OF SYNCHRONOUS SEQUENTIAL SYSTEMS ADDS TO THE COMPREHENSIVE NATURE OF THE TEXT. THE DERIVATION OF STATE TABLES FROM WORD PROBLEMS FURTHER EMPHASIZES THE PRACTICAL IMPLEMENTATION OF THE MATERIAL BEING PRESENTED.

DIGITAL DESIGN JOHN F. WAKERLY 2001 CD-ROM CONTAINS: XILINX STUDENT EDITION FOUNDATION SERIES SOFTWARE.

EMBEDDED SoPC DESIGN WITH NIOS II PROCESSOR AND VHDL EXAMPLES PONG P. CHU 2011-09-26 THE BOOK IS DIVIDED INTO FOUR MAJOR PARTS. PART I COVERS HDL CONSTRUCTS AND SYNTHESIS OF BASIC DIGITAL CIRCUITS. PART II PROVIDES AN OVERVIEW OF EMBEDDED SOFTWARE DEVELOPMENT WITH THE EMPHASIS ON LOW-LEVEL I/O ACCESS AND DRIVERS. PART III DEMONSTRATES THE DESIGN AND DEVELOPMENT OF HARDWARE AND SOFTWARE FOR SEVERAL COMPLEX I/O PERIPHERALS, INCLUDING PS2 KEYBOARD AND MOUSE, A GRAPHIC VIDEO CONTROLLER, AN AUDIO CODEC, AND AN SD (SECUREDIGITAL) CARD. PART IV PROVIDES THREE CASE STUDIES OF THE INTEGRATION OF HARDWARE ACCELERATORS, INCLUDING A CUSTOM GCD (GREATEST COMMON DIVISOR) CIRCUIT, A MANDELBROT SET FRACTAL CIRCUIT, AND AN AUDIO SYNTHESIZER BASED ON DDFS (DIRECT DIGITAL FREQUENCY SYNTHESIS) METHODOLOGY. THE BOOK UTILIZES FPGA DEVICES, NIOS II SOFT-CORE PROCESSOR, AND DEVELOPMENT PLATFORM FROM ALTERA Co., WHICH IS ONE OF THE TWO MAIN FPGA MANUFACTURES. ALTERA HAS A GENEROUS UNIVERSITY PROGRAM THAT PROVIDES FREE SOFTWARE AND DISCOUNTED PROTOTYPING BOARDS FOR EDUCATIONAL INSTITUTIONS (DETAILS AT AHREF=“HTTP://WWW.ALTERA.COM/UNIVERSITY” SPANSTYLE=“COLOR: #284457;” HTTP://WWW.ALTERA.COM/UNIVERSITY/SPAN/A). THE TWO MAIN EDUCATIONAL PROTOTYPING BOARDS ARE KNOWN AS DE1 (\$99) AND DE2 (\$269). ALL EXPERIMENTS CAN BE IMPLEMENTED AND TESTED WITH THESE BOARDS. A BOARD COMBINED WITH THIS BOOK BECOMES A “TURN-KEY” SOLUTION FOR THE SoPC DESIGN EXPERIMENTS AND PROJECTS. MOST HDL AND C CODES IN THE BOOK ARE DEVICE INDEPENDENT AND CAN BE ADAPTED BY OTHER PROTOTYPING BOARDS AS LONG AS A BOARD HAS SIMILAR I/O CONFIGURATION.

STEPHEN BROWN 2019

INTRODUCTION TO LOGIC DESIGN

INTRODUCTION TO SWITCHING THEORY AND LOGICAL DESIGN FREDRICK J. HILL 1981

SCIENTIFIC AND TECHNICAL BOOKS AND SERIALS IN PRINT 1989

PAUL HAWKEN 2018-02-22 NEW YORK TIMES BESTSELLER FOR THE FIRST TIME EVER, AN INTERNATIONAL COALITION OF LEADING RESEARCHERS, SCIENTISTS AND POLICYMAKERS HAS COME TOGETHER TO OFFER A SET OF REALISTIC AND BOLD SOLUTIONS TO CLIMATE CHANGE. ALL OF THE TECHNIQUES DESCRIBED HERE – SOME WELL-KNOWN, SOME YOU MAY HAVE NEVER HEARD OF – ARE ECONOMICALLY VIABLE, AND COMMUNITIES THROUGHOUT THE WORLD ARE ALREADY ENACTING THEM. FROM REVOLUTIONIZING HOW WE PRODUCE AND CONSUME FOOD TO EDUCATING GIRLS IN LOWER-INCOME COUNTRIES, THESE ARE ALL SOLUTIONS WHICH, IF DEPLOYED COLLECTIVELY ON A GLOBAL SCALE OVER THE NEXT THIRTY YEARS, COULD NOT JUST SLOW THE EARTH’S WARMING, BUT REACH DRAWDOWN: THE POINT WHEN GREENHOUSE GASSES IN THE ATMOSPHERE PEAK AND BEGIN TO DECLINE. SO WHAT ARE WE WAITING FOR?

INTRODUCTION TO LOGIC DESIGN

FUNDAMENTALS OF DIGITAL LOGIC WITH VHDL DESIGN

DRAWDOWN