

Software Receiver Design Build Your Own Digital Communication System In Five Easy Steps

Eventually, you will agreed discover a extra experience and endowment by spending more cash. still when? reach you acknowledge that you require to get those every needs next having significantly cash? Why dont you try to get something basic in the beginning? Thats something that will guide you to comprehend even more concerning the globe, experience, some places, behind history, amusement, and a lot more?

It is your agreed own become old to acquit yourself reviewing habit. among guides you could enjoy now is Software Receiver Design Build Your Own Digital Communication System In Five Easy Steps below.

Software-Defined Radio for Engineers Alexander M. Wyglinski 2018-04-30 Based on the popular Artech House classic, Digital Communication Systems Engineering with Software-Defined Radio, this book provides a practical approach to quickly learning the software-defined radio (SDR) concepts needed for work in the field. This up-to-date volume guides readers on how to quickly prototype wireless designs using SDR for real-world testing and experimentation. This book explores advanced wireless communication techniques such as OFDM, LTE, WLA, and hardware targeting. Readers will gain an understanding of the core concepts behind wireless hardware, such as the radio frequency front-end, analog-to-digital and digital-to-analog converters, as well as various processing technologies. Moreover, this volume includes chapters on timing estimation, matched filtering, frame synchronization message decoding, and source coding. The orthogonal frequency division multiplexing is explained and details about HDL code generation and deployment are provided. The book concludes with coverage of the WLAN toolbox with OFDM beacon reception and the LTE toolbox with downlink reception. Multiple case studies are provided throughout the book. Both MATLAB and Simulink source code are included to assist readers with their projects in the field.

Digital Health Alan Godfrey 2021-07-06 Digital Health: Exploring Use and Integration of Wearables is the first book to show how and why engineering theory is used to solve real-world clinical applications, considering the knowledge and lessons gathered during many international projects. This book provides a pragmatic A to Z guide on the design, deployment and use of wearable technologies for laboratory and remote patient assessment, aligning the shared interests of diverse professions to meet with a common goal of translating engineering theory to modern clinical practice. It offers multidisciplinary experiences to guide engineers where no clinically advice and expertise may be available. Entering the domain of wearables in healthcare is notoriously difficult as projects and ideas often fail to deliver due to the lack of clinical understanding, i.e., what do healthcare professionals and patients really need? This book provides engineers and computer scientists with the clinical guidance to ensure their novel work successfully translates to inform real-world clinical diagnosis, treatment and management. Presents the first guide for wearable technologies in a multidisciplinary and translational manner Helps engineers design real-world applications to help them better understand theory and drive pragmatic clinical solutions Combines the expertise of engineers and clinicians in one go-to guide, accessible to all

TCP/IP Network Administration Craig Hunt 2002-04-04 This complete guide to setting up and running a TCP/IP network is essential for network administrators, and invaluable for users of home systems that access the Internet. The book starts with the fundamentals -- what protocols do and how they work, how addresses and routing are used to move data through the network, how to set up your network connection -- and then covers, in detail, everything you need to know to exchange information via the Internet. Included are discussions on advanced routing protocols (RIPv2, OSPF, and BGP) and the gated software package that implements them, a tutorial on configuring important network services -- including DNS, Apache, sendmail, Samba, PPP, and DHCP -- as well as expanded chapters on troubleshooting and security. TCP/IP Network Administration is also a command and syntax reference for important packages such as gated, pppd, named, dhcpcd, and sendmail. With coverage that includes Linux, Solaris, BSD, and System V TCP/IP implementations, the third edition contains: Overview of TCP/IP Delivering the data Network services Getting startedM Basic configuration Configuring the interface Configuring routing Configuring DNS Configuring network servers Configuring sendmail Configuring Apache Network security Troubleshooting Appendices include dip, pppd, and chat reference, a gated reference, a dhcpcd reference, and a sendmail reference This new edition includes ways of configuring Samba to provide file and print sharing on networks that integrate Unix and Windows, and a new chapter is dedicated to the important task of configuring the Apache web server. Coverage of network security now includes details on OpenSSH, stunnel, gpg, iptables, and the access control mechanism in xinetd. Plus, the book offers updated information about DNS, including details on BIND 8 and BIND 9, the role of classless IP addressing and network prefixes, and the changing role of registrars. Without a doubt, TCP/IP Network Administration, 3rd Edition is a must-have for all network administrators and anyone who deals with a network that transmits data over the Internet.

Model Rules of Professional Conduct American Bar Association. House of Delegates 2007 The Model Rules of Professional Conduct provides an up-to-date resource for information on legal ethics. Federal, state and local courts in all jurisdictions look to the Rules for guidance in solving lawyer malpractice cases, disciplinary actions, disqualification issues, sanctions questions and much more. In this volume, black-letter Rules of Professional Conduct are followed by numbered Comments that explain each Rule's purpose and provide suggestions for its practical application. The Rules will help you identify proper conduct in a variety of given situations, review those instances where discretionary action is possible, and define the nature of the relationship between you and your clients, colleagues and the courts.

Design Patterns Erich Gamma 1995 Software -- Software Engineering.

Software Receiver Design: Build Your Own Digital Communications System in Five Easy Steps Jr C. Johnson 2011 Learn the key concepts and get hands-on experience with this step-by-step guide to constructing a fully functioning software receiver.

Entrepreneurship Marc H. Meyer 2010-12-09 This book shows students how to build successful new enterprises: to conceive, plan, and execute on a new venture idea. Based on research findings, the authors' own experiences and their work with dozens of young entrepreneurial companies, the book shows how innovation is inextricably linked with entrepreneurship. It breaks down all the key steps necessary for success, provides in-depth cases of companies from a variety of industries (with a focus on technology firms), and includes Reader Exercises at the end of each chapter that can be used for team activities.

A Software-Defined GPS and Galileo Receiver Kai Borre 2007-08-03 This book explore the use of new technologies in the area of satellite navigation receivers. In order to construct a reconfigurable receiver with a wide range of applications, the authors discuss receiver architecture based on software-defined radio techniques. The presentation unfolds in a user-friendly style and goes from the basics to cutting-edge research. The book is aimed at applied mathematicians, electrical engineers, geodesists, and graduate students. It may be used as a textbook in various GPS technology and signal processing courses, or as a self-study reference for anyone working with satellite navigation receivers.

Distance Education for Teacher Training Hilary Perraton 2002-03-11 First published in 2002. Routledge is an imprint of Taylor & Francis, an informa company.

Digital Communication Systems Engineering with Software-Defined Radio Alexander M. Wyglinski 2013-01-01 "This unique resource provides you with a practical approach to quickly learning the software-defined radio concepts you need to know for your work in the field. By prototyping and evaluating actual digital communication systems capable of performing "over-the-air" wireless data transmission and reception, this volume helps you attain a first-hand understanding of critical design trade-offs and issues. Moreover you gain a sense of the actual "real-world" operational behavior of these systems. With the purchase of the book, you gain access to several ready-made Simulink experiments at the publisher's website. This collection of laboratory experiments, along with several examples, enables you to successfully implement the designs discussed the book in a short period of time. These files can be executed using MATLAB version R2011b or later. "

AWS All-in-one Security Guide Adrin Mukherjee 2021-12-30 Learn to build robust security controls for the infrastructure, data, and applications in the AWS Cloud. KEY FEATURES ? Takes a comprehensive layered security approach that covers major use-cases. ? Covers key AWS security features leveraging the CLI and Management Console. ? Step-by-step instructions for all topics with graphical illustrations. ? Relevant code samples written in JavaScript (for Node.js runtime). DESCRIPTION If you're looking for a comprehensive guide to Amazon Web Services (AWS) security, this book is for you. With the help of this book, cloud professionals and the security team will learn how to protect their cloud infrastructure components and applications from external and internal threats. The book uses a comprehensive layered security approach to look into the relevant AWS services in each layer and discusses how to use them. It begins with an overview of the cloud's shared responsibility model and how to effectively use the AWS Identity and Access Management (IAM) service to configure identities and access controls for various services and components. The subsequent chapter covers AWS infrastructure security, data security, and AWS application layer security. Finally, the concluding chapters introduce the various logging, monitoring, and auditing services available in AWS, and the book ends with a chapter on AWS security best practices. By the end, as readers, you will gain the knowledge and skills necessary to make informed decisions and put in place security controls to create AWS application ecosystems that are highly secure. WHAT YOU WILL LEARN ? Learn to create a layered security architecture and employ defense in depth. ? Master AWS IAM and protect APIs. ? Use AWS WAF, AWS Secrets Manager, and AWS Systems Manager Parameter Store. ? Learn to secure data in Amazon S3, EBS, DynamoDB, and RDS using AWS Key Management Service. ? Secure Amazon VPC, filter IPs, use Amazon Inspector, use ECR image scans, etc. ? Protect cloud infrastructure from DDoS attacks and use AWS Shield. WHO THIS BOOK IS FOR The book is intended for cloud architects and security professionals interested in delving deeper into the AWS cloud's security ecosystem and determining the optimal way to leverage AWS security features. Working knowledge of AWS and its core services is necessary. TABLE OF CONTENTS 1. Introduction to Security in AWS 2. Identity And Access Management 3. Infrastructure Security 4. Data Security 5. Application Security 6. Logging, Monitoring, And Auditing 7. Security Best Practices

Digital Communications Michael Rice 2009 This text uses the principles of discrete-time signal processing to introduce and analyze digital communications - connecting continuous-time and discrete-time ideas. The text brings under one cover the theoretical and practical issues from discrete-time signal processing, discrete-time filter design, multi-rate discrete-time processing, estimation theory, signal space analysis, numerical algorithms - all focused on digital communications. A useful reference for programmers.

How People Learn National Research Council 2000-08-11 First released in the Spring of 1999, How People Learn has been expanded to show how the theories and insights from the original book can translate into actions and practice, now making a real connection between classroom activities and learning behavior. This edition includes far-reaching suggestions for research that could increase the impact that classroom teaching has on actual learning. Like the original edition, this book offers exciting new research about the mind and the brain that provides answers to a number of compelling questions. When do infants begin to learn? How do experts learn and how is this different from non-experts? What can teachers and schools do-with curricula, classroom settings, and teaching methods--to help children learn most effectively? New evidence from many branches of science has significantly added to our understanding of what it means to know, from the neural processes that occur during learning to the influence of culture on what people see and absorb. How People Learn examines these findings and their implications for what we teach, how we teach it, and how we assess what our children learn. The book uses exemplary teaching to illustrate how approaches based on what we now know result in in-depth learning. This new knowledge calls into question concepts and practices firmly entrenched in our current education system. Topics include: How learning actually changes the physical structure of the brain. How existing knowledge affects what people notice and how they learn. What the thought processes of experts tell us about how to teach. The amazing learning potential of infants. The relationship of classroom learning and everyday settings of community and workplace. Learning needs and opportunities for teachers. A realistic look at the role of technology in education.

Build your own 2D Game Engine and Create Great Web Games Kelvin Sung 2015-10-13 Build Your Own 2D Game Engine and Create Great Web Games teaches you how to develop your own web-based game engine step-by-step, allowing you to create a wide variety of online videogames that can be played in common web browsers. Chapters include examples and projects that gradually increase in complexity while introducing a ground-up design framework, providing you with the foundational concepts needed to build fun and engaging 2D games. By the end of this book you will have created a complete prototype level for a side scrolling action platform game and will be prepared to begin designing additional levels and games of your own. This book isolates and presents relevant knowledge from software engineering, computer

graphics, mathematics, physics, game development, game mechanics, and level design in the context of building a 2D game engine from scratch. The book then derives and analyzes the source code needed to implement these concepts based on HTML5, JavaScript, and WebGL. After completing the projects you will understand the core-concepts and implementation details of a typical 2D game engine and you will be familiar with a design and prototyping methodology you can use to create game levels and mechanics that are fun and engaging for players. You will gain insights into the many ways software design and creative design must work together to deliver the best game experiences, and you will have access to a versatile 2D game engine that you can expand upon or utilize directly to build your own 2D games that can be played online from anywhere.

- Assists the reader in understanding the core-concepts behind a 2D game engine
- Guides the reader in building a functional game engine based on these concepts
- Leads the reader in exploring the interplay between technical design and game experience design
- Teaches the reader how to build their own 2D games that can be played across internet via popular browsers

Building Secure and Reliable Systems Heather Adkins 2020-03-16 Can a system be considered truly reliable if it isn't fundamentally secure? Or can it be considered secure if it's unreliable? Security is crucial to the design and operation of scalable systems in production, as it plays an important part in product quality, performance, and availability. In this book, experts from Google share best practices to help your organization design scalable and reliable systems that are fundamentally secure. Two previous O'Reilly books from Google—*Site Reliability Engineering* and *The Site Reliability Workbook*—demonstrated how and why a commitment to the entire service lifecycle enables organizations to successfully build, deploy, monitor, and maintain software systems. In this latest guide, the authors offer insights into system design, implementation, and maintenance from practitioners who specialize in security and reliability. They also discuss how building and adopting their recommended best practices requires a culture that's supportive of such change. You'll learn about secure and reliable systems through:

- Design strategies
- Recommendations for coding, testing, and debugging practices
- Strategies to prepare for, respond to, and recover from incidents
- Cultural best practices that help teams across your organization collaborate effectively

Multirate Signal Processing For Communication Systems Harris 2007-09 This Book Provides The Communications Engineer Involved In The Physical Layer Of Communications Systems, The Signal Processing Techniques And Design Tools Needed To Develop Efficient Algorithms For The Design Of Various Systems. These Systems Include Satellite Modems, Cable Modems, Wire-Line Modems, Cell-Phones, Various Radios, Multi-Channel Receivers, Audio Encoders, Surveillance Receivers, Laboratory Instruments, And Various Sonar And Radar Systems. The Emphasis Woven Through The Book Material Is That Of Intuitive Understanding Obtained By The Liberal Use Of Figures And Examples. The Book Contains Examples Of All These Types Of Systems. The Book Also Will Contain Matlab Script Files That Implement The Examples As Well As Design Tools For Filters Similar To The Examples.

Learning JavaScript Design Patterns Addy Osmani 2012-07-08 With *Learning JavaScript Design Patterns*, you'll learn how to write beautiful, structured, and maintainable JavaScript by applying classical and modern design patterns to the language. If you want to keep your code efficient, more manageable, and up-to-date with the latest best practices, this book is for you. Explore many popular design patterns, including Modules, Observers, Facades, and Mediators. Learn how modern architectural patterns—such as MVC, MVP, and MVVM—are useful from the perspective of a modern web application developer. This book also walks experienced JavaScript developers through modern module formats, how to namespace code effectively, and other essential topics. Learn the structure of design patterns and how they are written. Understand different pattern categories, including creational, structural, and behavioral. Walk through more than 20 classical and modern design patterns in JavaScript. Use several options for writing modular code—including the Module pattern, Asynchronous Module Definition (AMD), and CommonJS. Discover design patterns implemented in the jQuery library. Learn popular design patterns for writing maintainable jQuery plug-ins. "This book should be in every JavaScript developer's hands. It's the go-to book on JavaScript patterns that will be read and referenced many times in the future."—Andrée Hansson, Lead Front-End Developer, presis!

Theory and Design of Digital Communication Systems Tri T. Ha 2010-10-28 Providing the underlying principles of digital communication and the design techniques of real-world systems, this textbook prepares senior undergraduate and graduate students for the engineering practices required in industry. Covering the core concepts, including modulation, demodulation, equalization, and channel coding, it provides step-by-step mathematical derivations to aid understanding of background material. In addition to describing the basic theory, the principles of system and subsystem design are introduced, enabling students to visualize the intricate connections between subsystems and understand how each aspect of the design supports the overall goal of achieving reliable communications. Throughout the book, theories are linked to practical applications with over 250 real-world examples, whilst 370 varied homework problems in three levels of difficulty enhance and extend the text material. With this textbook, students can understand how digital communication systems operate in the real world, learn how to design subsystems, and evaluate end-to-end performance with ease and confidence.

Official Gazette of the United States Patent and Trademark Office 1999

Programming Embedded Systems Michael Barr 2006 Authored by two of the leading authorities in the field, this guide offers readers the knowledge and skills needed to achieve proficiency with embedded software.

Software Receiver Design C. Richard Johnson, Jr 2011-08-18 Have you ever wanted to know how modern digital communications systems work? Find out with this step-by-step guide to building a complete digital radio that includes every element of a typical, real-world communication system. Chapter by chapter, you will create a MATLAB realization of the various pieces of the system, exploring the key ideas along the way, as well as analyzing and assessing the performance of each component. Then, in the final chapters, you will discover how all the parts fit together and interact as you build the complete receiver. In addition to coverage of crucial issues, such as timing, carrier recovery and equalization, the text contains over 400 practical exercises, providing invaluable preparation for industry, where wireless communications and software radio are becoming increasingly important. A variety of extra resources are also provided online, including lecture slides and a solutions manual for instructors.

Op Amps for Everyone Ron Mancini 2003 The operational amplifier ("op amp") is the most versatile and widely used type of analog IC, used in audio and voltage amplifiers, signal conditioners, signal converters, oscillators, and analog computing systems. Almost every electronic device uses at least one op amp. This book is Texas Instruments' complete professional-level tutorial and reference to operational amplifier theory and applications. Among the topics covered are basic op amp physics (including reviews of current and voltage division, Thevenin's theorem, and transistor models), idealized op amp operation and configuration, feedback theory and methods, single and dual supply operation, understanding op amp parameters, minimizing noise in op amp circuits, and practical applications such as instrumentation amplifiers, signal conditioning, oscillators, active filters, load and level conversions, and analog computing. There is also extensive coverage of circuit construction techniques, including circuit board design, grounding, input and output isolation, using decoupling capacitors, and frequency characteristics of passive components. The material in this book is applicable to all op amp ICs from all manufacturers, not just TI. Unlike textbook treatments of op amp theory that tend to focus on idealized op amp models and configuration, this title uses idealized models only when necessary to explain op amp theory. The bulk of this book is on real-world op amps and their applications; considerations such as thermal effects, circuit noise, circuit buffering, selection of appropriate op amps for a given application, and unexpected effects in passive components are all discussed in detail. *Published in conjunction with Texas Instruments *A single volume, professional-level guide to op amp theory and applications *Covers circuit board layout techniques for manufacturing op amp circuits.

Learning Android Marko Gargenta 2011-03-10 Want to build apps for Android devices? This book is the perfect way to master the fundamentals. Written by an expert who's taught this mobile platform to hundreds of developers in large organizations, this gentle introduction shows experienced object-oriented programmers how to use Android's basic building blocks to create user interfaces, store data, connect to the network, and more. You'll build a Twitter-like application throughout the course of this book, adding new features with each chapter. Along the way, you'll also create your own toolbox of code patterns to help you program any type of Android application with ease. Get an overview of the Android platform and discover how it fits into the mobile ecosystem. Learn about the Android stack, including its application framework, and the structure and distribution of application packages (APK). Set up your Android development environment and get started with simple programs. Use Android's building blocks—Activities, Intents, Services, Content Providers, and Broadcast Receivers. Learn how to build basic Android user interfaces and organize UI elements in Views and Layouts. Build a service that uses a background process to update data in your application. Get an introduction to Android Interface Definition Language (AIDL) and the Native Development Kit (NDK).

Computers & Electronics 1984

GPS for Land Surveyors, Third Edition Jan Van Sickle 2001-03-01 The GPS Signal - Biases and Solutions - The Framework - Receivers and Methods - Coordinates - Planning a Survey - Observing - Postprocessing - RTK and DGPS.

Computerworld 1984-01-30 For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

Exploring Raspberry Pi Derek Molloy 2016-06-13 Expand Raspberry Pi capabilities with fundamental engineering principles. Exploring Raspberry Pi is the innovators guide to bringing Raspberry Pi to life. This book favors engineering principles over a 'recipe' approach to give you the skills you need to design and build your own projects. You'll understand the fundamental principles in a way that transfers to any type of electronics, electronic modules, or external peripherals, using a "learning by doing" approach that caters to both beginners and experts. The book begins with basic Linux and programming skills, and helps you stock your inventory with common parts and supplies. Next, you'll learn how to make parts work together to achieve the goals of your project, no matter what type of components you use. The companion website provides a full repository that structures all of the code and scripts, along with links to video tutorials and supplementary content that takes you deeper into your project. The Raspberry Pi's most famous feature is its adaptability. It can be used for thousands of electronic applications, and using the Linux OS expands the functionality even more. This book helps you get the most from your Raspberry Pi, but it also gives you the fundamental engineering skills you need to incorporate any electronics into any project. Develop the Linux and programming skills you need to build basic applications. Build your inventory of parts so you can always "make it work." Understand interfacing, controlling, and communicating with almost any component. Explore advanced applications with video, audio, real-world interactions, and more. Be free to adapt and create with Exploring Raspberry Pi.

Modern Communications Receiver Design and Technology Cornell Drentea 2010 This comprehensive sourcebook thoroughly explores the state-of-the-art in communications receivers, providing detailed practical guidance for constructing an actual high dynamic range receiver from system design to packaging. You also find clear explanations of the technical underpinnings that you need to understand for your work in the field. This cutting-edge reference presents the latest information on modern superheterodyne receivers, dynamic range, mixers, oscillators, complex coherent synthesizers, automatic gain control, DSP and software radios. You find in-depth discussions on system design, including coverage of all pertinent data and tools. Moreover, the book offers you a solid understanding of packaging and mechanical considerations, as well as a look at tomorrow's receiver technology, including new Bragg-cell applications for ultra-wideband electronic warfare receivers. This one-stop resource is packed with over 300 illustrations that support critical topics throughout."

GPS, GLONASS, Galileo, and BeiDou for Mobile Devices Ivan G. Petrovski 2014-05-15 Get up to speed on all existing GNSS with this practical guide. Covering everything from GPS, GLONASS, Galileo, and BeiDou orbits and signals to multi-GNSS receiver design, AGPS, RTK, and VRS, you will understand the complete global range of mobile positioning systems. Step-by-step algorithms and practical methods provide the tools you need to develop current mobile systems, whilst coverage of cutting edge techniques, such as the instant positioning method, gives you a head-start in unlocking the potential of future mobile positioning. Whether you are an engineer or business manager working in the mobile device industry, a student or researcher, this is your ideal guide to GNSS.

Emerging Technologies for Construction Delivery John J. Hannon 2007-01-01

Pinpoint: How GPS is Changing Technology, Culture, and Our Minds Greg Milner 2016-05-03 "One of the most mesmerizing and exhilarating, yet alarming modern technology books...an extraordinary tale." —Gillian Tett, Financial Times Pinpoint tells the fascinating story of a hidden system that touches nearly every aspect of modern life. Tracking the development of GPS from its origins as a bomb guidance system to its present ubiquity, Greg Milner examines the technology's double-edged effect on the way we live, work, and travel. Savvy and original, this sweeping scientific history offers startling insight into how humans understand their place in the world.

Scientific and Technical Aerospace Reports 1992-03

Software Receiver Design C. Richard Johnson, Jr 2011-08-18 Have you ever wanted to know how modern digital communications systems work? Find out with this step-by-step guide to building a complete digital radio that includes every element of a typical, real-world communication system. Chapter by chapter, you will create a MATLAB realization of the various pieces of the system, exploring the key ideas along the way, as well as analyzing and assessing the performance of each component. Then, in the final chapters, you will discover how all the parts fit together and interact as you build the complete receiver. In addition to coverage of crucial issues, such as timing, carrier recovery and equalization, the text contains over 400 practical exercises, providing invaluable preparation for industry, where wireless

communications and software radio are becoming increasingly important. A variety of extra resources are also provided online, including lecture slides and a solutions manual for instructors.

[Build Your Own Free-to-Air \(FTA\) Satellite TV System](#) Dennis C. Brewer 2011-12-06 LEGALLY TAP INTO ABSOLUTELY FREE SATELLITE TV! Replace or expand your paid TV services with Free-to-Air television programming with ease. Build Your Own Free-to-Air (FTA) Satellite TV System shows how to affordably put together your own subscription-free home entertainment center from start to finish. Find out how to choose the right components, set up a satellite dish and receiver, fine-tune reception, add local over-the-air stations, and go mobile with your FTA TV system. You'll get full details on recording to the latest digital devices, installing a TV card in your PC, viewing video over the Internet, and integrating theater-quality audio. Photos and diagrams illustrate each step along the way. Comprehensive lists of technical terms and definitions, available channels and satellites, and dish-aiming steps are also included in this practical guide. COVERAGE INCLUDES: Equipment, component, and tool selection Satellite dish and FTA receiver installation Stereo, 5.1, and 7.1 sound Dish alignment and synchronization Local over-the-air channel reception Video over the Internet and movies on demand DVD players, DVRs, PCs, and VCRs Mobile, RV, and remote Free-to-Air TV

Starting Digital Signal Processing in Telecommunication Engineering Tomasz P. Zielinski 2021-01-29 This hands-on, laboratory driven textbook helps readers understand principles of digital signal processing (DSP) and basics of software-based digital communication, particularly software-defined networks (SDN) and software-defined radio (SDR). In the book only the most important concepts are presented. Each book chapter is an introduction to computer laboratory and is accompanied by complete laboratory exercises and ready-to-go Matlab programs with figures and comments (available at the book webpage and running also in GNU Octave 5.2 with free software packages), showing all or most details of relevant algorithms. Students are tasked to understand programs, modify them, and apply presented concepts to recorded real RF signal or simulated received signals, with modelled transmission condition and hardware imperfections. Teaching is done by showing examples and their modifications to different real-world telecommunication-like applications. The book consists of three parts: introduction to DSP (spectral analysis and digital filtering), introduction to DSP advanced topics (multi-rate, adaptive, model-based and multimedia - speech, audio, video - signal analysis and processing) and introduction to software-defined modern telecommunication systems (SDR technology, analog and digital modulations, single- and multi-carrier systems, channel estimation and correction as well as synchronization issues). Many real signals are processed in the book, in the first part – mainly speech and audio, while in the second part – mainly RF recordings taken from RTL-SDR USB stick and ADALM-PLUTO module, for example captured IQ data of VOR avionics signal, classical FM radio with RDS, digital DAB/DAB+ radio and 4G-LTE digital telephony. Additionally, modelling and simulation of some transmission scenarios are tested in software in the book, in particular TETRA, ADSL and 5G signals. Provides an introduction to digital signal processing and software-based digital communication; Presents a transition from digital signal processing to software-defined telecommunication; Features a suite of pedagogical materials including a laboratory test-bed and computer exercises/experiments??.

Deep Work Cal Newport 2016-01-05 Read the Wall Street Journal Bestseller for "cultivating intense focus" for fast, powerful performance results for achieving success and true meaning in one's professional life (Adam Grant, author of Give and Take). Deep work is the ability to focus without distraction on a cognitively demanding task. It's a skill that allows you to quickly master complicated information and produce better results in less time. Deep Work will make you better at what you do and provide the sense of true fulfillment that comes from craftsmanship. In short, deep work is like a super power in our increasingly competitive twenty-first century economy. And yet, most people have lost the ability to go deep-spending their days instead in a frantic blur of e-mail and social media, not even realizing there's a better way. In Deep Work, author and professor Cal Newport flips the narrative on impact in a connected age. Instead of arguing distraction is bad, he instead celebrates the power of its opposite. Dividing this book into two parts, he first makes the case that in almost any profession, cultivating a deep work ethic will produce massive benefits. He then presents a rigorous training regimen, presented as a series of four "rules," for transforming your mind and habits to support this skill. 1. Work Deeply 2. Embrace Boredom 3. Quit Social Media 4. Drain the Shallows A mix of cultural criticism and actionable advice, Deep Work takes the reader on a journey through memorable stories-from Carl Jung building a stone tower in the woods to focus his mind, to a social media pioneer buying a round-trip business class ticket to Tokyo to write a book free from distraction in the air-and no-nonsense advice, such as the claim that most serious professionals should quit social media and that you should practice being bored. Deep Work is an indispensable guide to anyone seeking focused success in a distracted world. An Amazon Best Book of 2016 Pick in Business & Leadership Wall Street Journal Business Bestseller A Business Book of the Week at 800-CEO-READ

Introduction to Embedded Systems, Second Edition Edward Ashford Lee 2016-12-30 An introduction to the engineering principles of embedded systems, with a focus on modeling, design, and analysis of cyber-physical systems. The most visible use of computers and software is processing information for human consumption. The vast majority of computers in use, however, are much less visible. They run the engine, brakes, seatbelts, airbag, and audio system in your car. They digitally encode your voice and construct a radio signal to send it from your cell phone to a base station. They command robots on a factory floor, power generation in a power plant, processes in a chemical plant, and traffic lights in a city. These less visible computers are called embedded systems, and the software they run is called embedded software. The principal challenges in designing and analyzing embedded systems stem from their interaction with physical processes. This book takes a cyber-physical approach to embedded systems, introducing the engineering concepts underlying embedded systems as a technology and as a subject of study. The focus is on modeling, design, and analysis of cyber-physical systems, which integrate computation, networking, and physical processes. The second edition offers two new chapters, several new exercises, and other improvements. The book can be used as a textbook at the advanced undergraduate or introductory graduate level and as a professional reference for practicing engineers and computer scientists. Readers should have some familiarity with machine structures, computer programming, basic discrete mathematics and algorithms, and signals and systems.

The A.R.R.L. Antenna Book 2003

Build Your Own Intelligent Amateur Radio Transceiver Randy Lee Henderson 1997 Ideal for all amateur radio operators, this guide provides complete instructions for building a sophisticated yet low cost microprocessor-controlled radio transceiver, as well as smaller projects such as a simple frequency synthesiser

Release It! Michael T. Nygard 2018-01-08 A single dramatic software failure can cost a company millions of dollars - but can be avoided with simple changes to design and architecture. This new edition of the best-selling industry standard shows you how to create systems that run longer, with fewer failures, and recover better when bad things happen. New coverage includes DevOps, microservices, and cloud-native architecture. Stability antipatterns have grown to include systemic problems in large-scale systems. This is a must-have pragmatic guide to engineering for production systems. If you're a software developer, and you don't want to get alerts every night for the rest of your life, help is here. With a combination of case studies about huge losses - lost revenue, lost reputation, lost time, lost opportunity - and practical, down-to-earth advice that was all gained through painful experience, this book helps you avoid the pitfalls that cost companies millions of dollars in downtime and reputation. Eighty percent of project life-cycle cost is in production, yet few books address this topic. This updated edition deals with the production of today's systems - larger, more complex, and heavily virtualized - and includes information on chaos engineering, the discipline of applying randomness and deliberate stress to reveal systematic problems. Build systems that survive the real world, avoid downtime, implement zero-downtime upgrades and continuous delivery, and make cloud-native applications resilient. Examine ways to architect, design, and build software - particularly distributed systems - that stands up to the typhoon winds of a flash mob, a Slashdotting, or a link on Reddit. Take a hard look at software that failed the test and find ways to make sure your software survives. To skip the pain and get the experience...get this book.