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9YVAE4 - MENDEZ SMALL

In this updated edition of the successful Public Relations Handbook, a detailed introduction to the theories and practices of the public relations industry is given. Broad in scope, it; traces the history and development of public relations, explores ethical issues which affect the industry, examines its relationships with politics, lobbying organisations and journalism, assesses its professionalism and regulation, and advises on training and entry into the profession. It includes: interviews with press officers and PR agents about their working practices case studies, examples, press releases and illustrations from a range of campaigns including Railtrack, Marks and Spencer, Guinness and the Metropolitan Police specialist chapters on financial public relations, global PR, business ethics, on-line promotion and the challenges of new technology over twenty illustrations from recent PR campaigns. In this revised and updated practical text, Alison Theaker successfully combines theoretical and organisational frameworks for studying public relations with examples of how the industry works in practice.

Conventional theories of capitalism are mired in a deep crisis: after centuries of debate, they are still unable to tell us what capital is. Liberals and Marxists both think of capital as an 'economic' entity that they count in universal units of 'utils' or 'abstract labour', respectively. But these units are totally fictitious. Nobody has ever been able to observe or measure them, and for a good reason: they don't exist. Since liberalism and Marxism depend on these non-existing units, their theories hang in suspension. They cannot explain the process that matters most – the accumulation of capital. This book offers a radical alternative. According to the authors, capital is not a narrow economic entity, but a symbolic quantification of power. It has little to do with utility or abstract labour, and it extends far beyond machines and production lines. Capital, the authors claim, represents the organized power of dominant capital groups to reshape – or creorder – their society. Written in simple language, accessible to lay readers and experts alike, the book develops a novel political economy. It takes the reader through the history, assumptions and limitations of mainstream economics and its associated theories of politics. It examines the evolution of Marxist thinking on accumulation and the state. And it articulates an innovative theory of 'capital as power' and a new history of the 'capitalist mode of power'.

Human-Computer Interaction: An Empirical Research Perspective is the definitive guide to empirical research in HCI. The book begins with foundational topics including historical context, the human factor, interaction elements, and the fundamentals of science and research. From there, you'll progress to learning about the methods for conducting an experiment to evaluate a new computer interface or interaction technique. There are detailed discussions and how-to analyses on models of interaction, focusing on descriptive models and predictive models. Writing and publishing a research paper is explored with helpful tips for success. Throughout the book, you'll find hands-on exercises, checklists, and real-world examples. This is your must-have, comprehensive guide to empirical and experimental research in HCI—an essential addition to your HCI library. Master empirical and experimental research with this comprehensive, A-to-Z guide in a concise, hands-on reference Discover the practical and theoretical ins-and-outs of user studies Find exercises, takeaway points, and case studies throughout

* The primary book on the J2ME Polish open source tool * Written by Robert Virkus, the lead programmer and architect of J2ME Polish * Discusses every aspect of J2ME Polish in-depth, including installing, using, and extending * Includes hands-on tutorials that encourage the reader to apply their acquired knowledge

Today's market for mobile apps goes beyond the iPhone to include BlackBerry, Nokia, Windows Phone, and smartphones powered by Android, webOS, and other platforms. If you're an experienced web developer, this book shows you how to build a standard app core that you can extend to work with specific devices. You'll learn the particulars and pitfalls of building mobile apps with HTML, CSS, and other standard web tools. You'll also explore platform variations, finicky mobile browsers, Ajax design patterns for mobile, and much more. Before you know it, you'll be able to create mashups using Web 2.0 APIs in apps for the App Store, App World, OVI Store, Android Market, and other online retailers. Learn how to use your existing web skills to move into mobile development Discover key differences in mobile app design and navigation, including touch devices Use HTML, CSS, JavaScript, and Ajax to create effective user interfaces in the mobile environment Learn about technologies such as HTML5, XHTML MP, and WebKit extensions Understand variations of platforms such as Symbian, BlackBerry, webOS, Bada, Android, and iOS for iPhone and iPad Bypass the browser to create offline apps and widgets using web technologies

Must-read play looks to a future in which all workers are automatons. They revolt when they acquire souls (i.e., when they gain the ability to hate) and the resulting catastrophe make for a powerful theatrical experience.

Antennas and propagation are of fundamental importance to the coverage, capacity and quality of all wireless communication systems. This book provides a solid grounding in antennas and propagation, covering terrestrial and satellite radio systems in both mobile and fixed contexts. Building on

the highly successful first edition, this fully updated text features significant new material and brand new exercises and supplementary materials to support course tutors. A vital source of information for practising and aspiring wireless communication engineers as well as for students at postgraduate and senior undergraduate levels, this book provides a fundamental grounding in the principles of antennas and propagation without excessive recourse to mathematics. It also equips the reader with practical prediction techniques for the design and analysis of a very wide range of common wireless communication systems. Including: Overview of the fundamental electromagnetic principles underlying propagation and antennas. Basic concepts of antennas and their application to specific wireless systems. Propagation measurement, modelling and prediction for fixed links, macrocells, microcells, picocells and megacells Narrowband and wideband channel modelling and the effect of the channel on communication system performance. Methods that overcome and transform channel impairments to enhance performance using diversity, adaptive antennas and equalisers. Key second edition updates: New chapters on Antennas for Mobile Systems and Channel Measurements for Mobile Radio Systems. Coverage of new technologies, including MIMO antenna systems, Ultra Wideband (UWB) and the OFDM technology used in Wi-Fi and WiMax systems. Many new propagation models for macrocells, microcells and picocells. Fully revised and expanded end-of-chapter exercises. The Solutions Manual can be requested from http://www.wiley.com/go/saunders_antennas_2e

The computer and particularly the Internet have been represented as enabling technologies, turning consumers into users and users into producers. The unfolding online cultural production by users has been framed enthusiastically as participatory culture. But while many studies of user activities and the use of the Internet tend to romanticize emerging media practices, this book steps beyond the usual framework and analyzes user participation in the context of accompanying popular and scholarly discourse, as well as the material aspects of design, and their relation to the practices of design and appropriation.

Addressing the security solutions for LTE, a cellular technology from Third Generation Partnership Project (3GPP), this book shows how LTE security substantially extends GSM and 3G security. It also encompasses the architectural aspects, known as SAE, to give a comprehensive resource on the topic. Although the security for SAE/LTE evolved from the security for GSM and 3G, due to different architectural and business requirements of fourth generation systems the SAE/LTE security architecture is substantially different from its predecessors. This book presents in detail the security mechanisms employed to meet these requirements. Whilst the industry standards inform how to implement systems, they do not provide readers with the underlying principles behind security specifications. LTE Security fills this gap by providing first hand information from 3GPP insiders who explain the rationale for design decisions. Key features: Provides a concise guide to the 3GPP/LTE Security Standardization specifications Authors are leading experts who participated in decisively shaping SAE/LTE security in the relevant standardization body, 3GPP Shows how GSM and 3G security was enhanced and extended to meet the requirements of fourth generation systems Gives the rationale behind the standards specifications enabling readers to have a broader understanding of the context of these specifications Explains why LTE security solutions are designed as they are and how theoretical security mechanisms can be put to practical use

This book covers the design of business processes from a broad quantitative modeling perspective.

The text presents a multitude of analytical tools that can be used to model, analyze, understand and ultimately, to design business processes. The range of topics in this text include graphical flowcharting tools, deterministic models for cycle time analysis and capacity decisions, analytical queuing methods, as well as the use of Data Envelopment Analysis (DEA) for benchmarking purposes. And a major portion of the book is devoted to simulation modeling using a state of the art discrete-event simulation package.

The fourth edition of Industrial Organisation continues to highlight the strong link between the theory and analysis of industrial economics using engaging case studies. It takes students on a journey through the historical development of industrial organisation to the present day with new case studies exploring contemporary issues in business, finance and economics such as: Corporate governance Executive pay Price Wars Cloud computing Barriers to entry in banking Patent infringement Social networking Mergers in the car industry Outsourcing

The Institute of Food Technologists (IFT) recently endorsed the use of computers in food science education. The minimum standards for degrees in food science, as suggested by IFT,"require the students to use computers in the solution of problems, the collection and analysis of data, the control processes, in addition to word processing."Because they are widely used in business, allow statistical and graphical of experimental data, and can mimic laboratory experimentation, spreadsheets provide an ideal tool for learning the important features of computers and programming. In addition, they are ideally suited for food science students, who usually do not have an extensive mathematical background. Drawing from the many courses he has taught at UC Davis, Dr. Singh covers the general basics of spreadsheets using examples specific to food science. He includes more than 50 solved problems drawn from key areas of food science, namely food microbiology, food chemistry, sensory evaluation, statistical quality control, and food engineering. Each problem is presented with the required equations and detailed steps necessary for programming the spreadsheet. Helpful hints in using the spreadsheets are also provided throughout the text. Key Features * The first book to integrate speadsheets in teaching food science and technology * Includes more than 50 solved examples of spreadsheet use in food science and engineering * Presents a step-by-step introduction to spreadsheet use * Provides a food composition database on a computer disk

"Witty, compelling, and just plain fun to read . . ." —Evelyn Lamb, Scientific American The Freakonomics of math—a math-world superstar unveils the hidden beauty and logic of the world and puts its power in our hands The math we learn in school can seem like a dull set of rules, laid down by the ancients and not to be questioned. In How Not to Be Wrong, Jordan Ellenberg shows us how terribly limiting this view is: Math isn't confined to abstract incidents that never occur in real life, but rather touches everything we do—the whole world is shot through with it. Math allows us to see the hidden structures underneath the messy and chaotic surface of our world. It's a science of not being wrong, hammered out by centuries of hard work and argument. Armed with the tools of mathematics, we can see through to the true meaning of information we take for granted: How early should you get to the airport? What does "public opinion" really represent? Why do tall parents have shorter children? Who really won Florida in 2000? And how likely are you, really, to develop cancer? How Not to Be Wrong presents the surprising revelations behind all of these questions and many more, using the mathematician's method of analyzing life and exposing the hard-won insights of the academic com-

munity to the layman—minus the jargon. Ellenberg chases mathematical threads through a vast range of time and space, from the everyday to the cosmic, encountering, among other things, baseball, Reaganomics, daring lottery schemes, Voltaire, the replicability crisis in psychology, Italian Renaissance painting, artificial languages, the development of non-Euclidean geometry, the coming obesity apocalypse, Antonin Scalia's views on crime and punishment, the psychology of slime molds, what Facebook can and can't figure out about you, and the existence of God. Ellenberg pulls from history as well as from the latest theoretical developments to provide those not trained in math with the knowledge they need. Math, as Ellenberg says, is "an atomic-powered prosthesis that you attach to your common sense, vastly multiplying its reach and strength." With the tools of mathematics in hand, you can understand the world in a deeper, more meaningful way. How Not to Be Wrong will show you how.

In this insightful book, you'll learn from the best data practitioners in the field just how wide-ranging -- and beautiful -- working with data can be. Join 39 contributors as they explain how they developed simple and elegant solutions on projects ranging from the Mars lander to a Radiohead video. With Beautiful Data, you will: Explore the opportunities and challenges involved in working with the vast number of datasets made available by the Web Learn how to visualize trends in urban crime, using maps and data mashups Discover the challenges of designing a data processing system that works within the constraints of space travel Learn how crowdsourcing and transparency have combined to advance the state of drug research Understand how new data can automatically trigger alerts when it matches or overlaps pre-existing data Learn about the massive infrastructure required to create, capture, and process DNA data That's only small sample of what you'll find in Beautiful Data. For anyone who handles data, this is a truly fascinating book. Contributors include: Nathan Yau Jonathan Follett and Matt Holm J.M. Hughes Raghu Ramakrishnan, Brian Cooper, and Utkarsh Srivastava Jeff Hammerbacher Jason Dykes and Jo Wood Jeff Jonas and Lisa Sokol Jud Valeski Alon Halevy and Jayant Madhavan Aaron Koblin with Valdean Klump Michal Migurski Jeff Heer Coco Krumme Peter Norvig Matt Wood and Ben Blackburne Jean-Claude Bradley, Rajarshi Guha, Andrew Lang, Pierre Lindenbaum, Cameron Neylon, Antony Williams, and Egon Willighagen Lukas Biewald and Brendan O'Connor Hadley Wickham, Deborah Swayne, and David Poole Andrew Gelman, Jonathan P. Kastellec, and Yair Ghitza Toby Segaran

Introducing information security professionals to the world of artificial intelligence and machine learning through explanation and examples.

Irrespective of whether we use economic or societal metrics, the Internet is one of the most important technical infrastructures in existence today. It will be a catalyst for much of our innovation and prosperity in the future. A competitive Europe will require Internet connectivity and services beyond the capabilities offered by current technologies. Future Internet research is therefore a must. This book is published in full compliance with the Open Access publishing initiative; it is based on the research carried out within the Future Internet Assembly (FIA). It contains a sample of representative results from the recent FIA meetings spanning a broad range of topics, all being of crucial importance for the future Internet. The book includes 32 contributions and has been structured into the following sections, each of which is preceded by a short introduction: Foundations: architectural issues; socio-economic issues; security and trust; and experiments and experimental design. Future Internet

Areas: networks, services, and content; and applications.

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.

This book is the outcome of a series of discussions at the Philips Symposium on Intelligent Algorithms, held in Eindhoven in December 2004. It offers exciting and practical examples of the use of intelligent algorithms in ambient and biomedical computing. It contains topics such as bioscience computing, database design, machine consciousness, scheduling, video summarization, audio classification, semantic reasoning, machine learning, tracking and localization, secure computing, and communication.

High Performance Silicon Imaging covers the fundamentals of silicon image sensors, with a focus on existing performance issues and potential solutions. The book considers several applications for the technology as well. Silicon imaging is a fast growing area of the semiconductor industry. Its use in cell phone cameras is already well established, and emerging applications include web, security, automotive, and digital cinema cameras. Part one begins with a review of the fundamental principles of photosensing and the operational principles of silicon image sensors. It then focuses in on charged coupled device (CCD) image sensors and complementary metal oxide semiconductor (CMOS) image sensors. The performance issues considered include image quality, sensitivity, data transfer rate, system level integration, rate of power consumption, and the potential for 3D imaging. Part two then discusses how CMOS technology can be used in a range of areas, including in mobile devices, image sensors for automotive applications, sensors for several forms of scientific imaging, and sensors for medical applications. High Performance Silicon Imaging is an excellent resource for both academics and engineers working in the optics, photonics, semiconductor, and electronics industries. Covers the fundamentals of silicon-based image sensors and technical advances, focusing on performance issues Looks at image sensors in applications such as mobile phones, scientific imaging, TV broadcasting, automotive, and biomedical applications

THE TELECOMMUNICATIONS HANDBOOK THE TELECOMMUNICATIONS HANDBOOK ENGINEERING GUIDELINES FOR FIXED, MOBILE AND SATELLITE SYSTEMS Taking a practical approach, The Telecommunications Handbook examines the principles and details of all the major and modern telecommunications systems currently available to industry and to end-users. It gives essential information about usage, architectures, functioning, planning, construction, measurements and optimization. The struc-

ture of the book is modular, giving both overall descriptions of the architectures and functionality of typical use cases, as well as deeper and practical guidelines for telecom professionals. The focus of the book is on current and future networks, and the most up-to-date functionalities of each network are described in sufficient detail for deployment purposes. The contents include an introduction to each technology, its evolution path, feasibility and utilization, solution and network architecture, and technical functioning of the systems (signaling, coding, different modes for channel delivery and security of core and radio system). The planning of the core and radio networks (system-specific field test measurement guidelines, hands-on network planning advices and suggestions for parameter adjustments) and future systems are also described. With contributions from specialists in both industry and academia, the book bridges the gap between communications in the academic context and the practical knowledge and skills needed to work in the telecommunications industry.

This comprehensive text presents descriptive and inferential statistics with an assortment of business examples and real data, and an emphasis on decision-making. The accompanying CD-ROM presents Excel and Minitab tutorials as well as data files for all the exercises and exmaples presented.

This book reviews the state of the art of big data analysis and smart city. It includes issues which pertain to signal processing, probability models, machine learning, data mining, database, data engineering, pattern recognition, visualisation, predictive analytics, data warehousing, data compression, computer programming, smart city, etc. Data is becoming an increasingly decisive resource in modern societies, economies, and governmental organizations. Data science inspires novel techniques and theories drawn from mathematics, statistics, information theory, computer science, and social science. Papers in this book were the outcome of research conducted in this field of study. The latter makes use of applications and techniques related to data analysis in general and big data and smart city in particular. The book appeals to advanced undergraduate and graduate students, post-doctoral researchers, lecturers and industrial researchers, as well as anyone interested in big data analysis and smart city.

Appropriate for Computer Networking or Introduction to Networking courses at both the undergraduate and graduate level in Computer Science, Electrical Engineering, CIS, MIS, and Business Departments. Tanenbaum takes a structured approach to explaining how networks work from the inside out. He starts with an explanation of the physical layer of networking, computer hardware and transmission systems; then works his way up to network applications. Tanenbaum's in-depth application coverage includes email; the domain name system; the World Wide Web (both client- and server-side); and multimedia (including voice over IP, Internet radio video on demand, video conferencing, and streaming media.

This book features original papers from International Conference on Expert Clouds and Applications (ICOECA 2021), organized by GITAM School of Technology, Bangalore, India during February 18–19, 2021. It covers new research insights on artificial intelligence, big data, cloud computing, sustainability, and knowledge-based expert systems. The book discusses innovative research from all aspects including theoretical, practical, and experimental domains that pertain to the expert systems, sustainable clouds, and artificial intelligence technologies.

Harnessing the power of software platforms: what executives and entrepreneurs must know about how to use this technology to transform industries and how to develop the strategies that will create value and drive profits. Software platforms are the invisible engines that have created, touched, or transformed nearly every major industry for the past quarter century. They power everything from mobile phones and automobile navigation systems to search engines and web portals. They have been the source of enormous value to consumers and helped some entrepreneurs build great fortunes. And they are likely to drive change that will dwarf the business and technology revolution we have seen to this point. Invisible Engines examines the business dynamics and strategies used by firms that recognize the transformative power unleashed by this new revolution—a revolution that will change both new and old industries. The authors argue that in order to understand the successes of software platforms, we must first understand their role as a technological meeting ground where application developers and end users converge. Apple, Microsoft, and Google, for example, charge developers little or nothing for using their platforms and make most of their money from end users; Sony PlayStation and other game consoles, by contrast, subsidize users and make more money from developers, who pay royalties for access to the code they need to write games. More applications attract more users, and more users attract more applications. And more applications and more users lead to more profits. Invisible Engines explores this story through the lens of the companies that have mastered this platform-balancing act. It offers detailed studies of the personal computer, video game console, personal digital assistant, smart mobile phone, and digital media software platform industries, focusing on the business decisions made by industry players to drive profits and stay a step ahead of the competition. Shorter discussions of Internet-based software platforms provide an important glimpse into a future in which the way we buy, pay, watch, listen, learn, and communicate will change forever. An electronic version of this book is available under a Creative Commons license.

Merging theory and practice into a comprehensive,highly-anticipated text Corporate Finance continues its legacy as one of the mostpopular financial textbooks, with well-established content from adiverse and highly respected author team. Unique in its features,this valuable text blends theory and practice with a direct,succinct style and commonsense presentation. Readers will beintroduced to concepts in a situational framework, followed by adetailed discussion of techniques and tools. This latest editionincludes new information on venture finance and debt structuring,and has been updated throughout with the most recent statisticaltables. The companion website provides statistics, graphs, charts,articles, computer models, and classroom tools, and the freemonthly newsletter keeps readers up to date on the latesthappenings in the field. The authors have generously madethemselves available for questions, promising an answer inseventy-two hours. Emphasizing how key concepts relate to real-world situations iswhat makes Corporate Finance a valuable reference with realrelevance to the professional and student alike. Readers will gaininsight into the methods and tools that shape the industry,allowing them to: Analyze investments with regard to hurdle rates, cash flows,side costs, and more Delve into the financing process and learn the tools andtechniques of valuation Understand cash dividends and buybacks, spinoffs, anddivestitures Explore the link between valuation and corporate finance As the global economy begins to recover, access to the mostcurrent information and statistics will be required. To remainrelevant in the evolving financial environment, practitioners willneed a deep understanding of the mechanisms at work. CorporateFi-

nance provides the expert guidance and detailed explanationsfor those requiring a strong foundatio-nal knowledge, as well asmore advanced corporate finance professionals.

Integrates social media, social network analysis, and data mining to provide an understanding of the potentials of social media mining.

This practical book provides the concepts and code you need to develop software with Android, the open-source platform for cell phones and mobile devices that's generating enthusiasm across the in-dustry. Based on the Linux operating system and developed by Google and the Open Handset Al-liance, Android has the potential to unite a fragmented mobile market. Android Application Develop-ment introduces this programming environment, and offers you a complete working example that de-monstrates Android architectural features and APIs. With this book, you will: Get a complete introduc-tion to the Android programming environment, architecture, and tools Build a modular application, beginning with a core module that serves to launch modules added in subsequent chapters Learn the concepts and architecture of a specific feature set, including views, maps, location-based ser-vices, persistent data storage, 2D and 3D graphics, media services, telephony services, and messag-ing Use ready-to-run example code that implements each feature Delve into advanced topics, such as security, custom views, performance analysis, and internationalization The book is a natural com-plement to the existing Android documentation provided by Google. Whether you want to develop a commercial application for mobile devices, or just want to create a mobile mashup for personal use, Android Application Development demonstrates how you can design, build, and test applications for the new mobile market.

Over the last few years, interest in the industrial applications of AI and learning systems has surged. This book covers the recent developments and provides a broad perspective of the key challenges that characterize the field of Industry 4.0 with a focus on applications of AI. The target audience for this book includes engineers involved in automation system design, operational planning, and deci-sion support. Computer science practitioners and industrial automation platform developers will also benefit from the timely and accurate information provided in this work. The book is organized into two main sections comprising 12 chapters overall: •Digital Platforms and Learning Systems •Indus-trial Applications of AI

Tap into the wisdom of experts to learn what every programmer should know, no matter what lan-guage you use. With the 97 short and extremely useful tips for programmers in this book, you'll ex-pand your skills by adopting new approaches to old problems, learning appropriate best practices, and honing your craft through sound advice. With contributions from some of the most experienced and respected practitioners in the industry--including Michael Feathers, Pete Goodliffe, Diomidis Spinellis, Cay Horstmann, Verity Stob, and many more--this book contains practical knowledge and principles that you can apply to all kinds of projects. A few of the 97 things you should know: "Code in the Language of the Domain" by Dan North "Write Tests for People" by Gerard Meszaros "Conve-nience Is Not an -ility" by Gregor Hohpe "Know Your IDE" by Heinz Kabutz "A Message to the Future" by Linda Rising "The Boy Scout Rule" by Robert C. Martin (Uncle Bob) "Beware the Share" by Udi Da-han

Thoroughly updated for newnbsp;breakthroughs in multimedia nbsp; The internationally bestselling Multimedia: Making it Work has been fully revised and expanded to cover the latest technological ad-vances in multimedia. You will learn to plan and manage multimedia projects, from dynamic CD-ROMs and DVDs to professional websites. Each chapter includes step-by-step instructions, full-color illustrations and screenshots, self-quizzes, and hands-on projects. nbsp;

This book provides a comprehensive yet easy coverage of ad hoc and sensor networks and fills the gap of existing literature in this growing field. It emphasizes that there is a major interdependence among various layers of the network protocol stack. Contrary to wired or even one-hop cellular net-works, the lack of a fixed infrastructure, the inherent mobility, the wireless channel, and the underly-ing routing mechanism by ad hoc and sensor networks introduce a number of technological chal-lenges that are difficult to address within the boundaries of a single protocol layer. All existing text-books on the subject often focus on a specific aspect of the technology, and fail to provide critical in-sights on cross-layer interdependencies. To fully understand these intriguing networks, one need to grasp specific solutions individually, and also the many interdependencies and cross-layer interac-tions.

This book introduces readers to a reconfigurable chip architecture for future wireless communication systems, such as 5G and beyond. The proposed architecture perfectly meets the demands for future mobile communication solutions to support different standards, algorithms, and antenna sizes, and to accommodate the evolution of standards and algorithms. It employs massive MIMO detection algo-rithms, which combine the advantages of low complexity and high parallelism, and can fully meet the requirements for detection accuracy. Further, the architecture is implemented using ASIC, which offers high energy efficiency, high area efficiency and low detection error. After introducing massive MIMO detection algorithms and circuit architectures, the book describes the ASIC implementation for verifying the massive MIMO detection. In turn, it provides detailed information on the proposed re-configurable architecture: the data path and configuration path for massive MIMO detection algo-rithms, including the processing unit, interconnections, storage mechanism, configuration informa-tion format, and configuration method.

Can you afford not to read this book?........ The Universal Mobile Telecommunication System (UMTS) offers a consistent set of services to mobile computer and phone users and numerous different radio access technologies will co-exist within the UMTS system's core network – security is, therefore, of the utmost importance. UMTS Security focuses on the standardized security features of UMTS and brings together material previously only available in specifications, design documents and presenta-tions in one concise form. In addition, this unique volume also covers non-standard implementation specific features that allow differentiation between operators and manufacturers. Describes the secu-rity solutions specified for UMTS Provides a comprehensive presentation of the UMTS security specifi-cations and explains the role of the security functionality in the UMTS system Presents the UMTS se-curity system in its totality from the theoretical background through to the design process Discusses the new security features included in Release 4 and 5 By providing a unified treatment of the securi-ty services provided by the UMTS system, this volume will provide invaluable information and have instant appeal to planners, constructers and implementers of UMTS networks, and developers and analysts of application oriented security services that make use of UMTS communication networks. It will also be of considerable interest to postgraduates and researchers of modern communication se-curity technology.

This book introduces the Zynq MPSoC (Multi-Processor System-on-Chip), an embedded device from Xilinx. The Zynq MPSoC combines a sophisticated processing system that includes ARM Cortex-A53 applications and ARM Cortex-R5 real-time processors, with FPGA programmable logic. As well as guiding the reader through the architecture of the device, design tools and methods are also covered in detail: both the conventional hardware/software co-design approach, and the newer software-defined methodology using Xilinx's SDx development environment. Featured aspects of Zynq MPSoC design include hardware and software development, multiprocessing, safety, security and platform management, and system booting. There are also special features on PYNQ, the Python-based framework for Zynq devices, and machine learning applications. This book should serve as a useful guide for those working with Zynq MPSoC, and equally as a reference for technical managers wishing to gain familiarity with the device and its associated design methodologies.

This book takes a look at fully automated, autonomous vehicles and discusses many open questions: How can autonomous vehicles be integrated into the current transportation system with diverse users and human drivers? Where do automated vehicles fall under current legal frameworks? What risks are associated with automation and how will society respond to these risks? How will the marketplace react to automated vehicles and what changes may be necessary for companies? Experts from Germany and the United States define key societal, engineering, and mobility issues related to the automation of vehicles. They discuss the decisions programmers of automated vehicles must make to enable vehicles to perceive their environment, interact with other road users, and choose actions that may have ethical consequences. The authors further identify expectations and concerns that will form the basis for individual and societal acceptance of autonomous driving. While the safety benefits of such vehicles are tremendous, the authors demonstrate that these benefits will only be achieved if vehicles have an appropriate safety concept at the heart of their design. Realizing the potential of automated vehicles to reorganize traffic and transform mobility of people and goods requires similar care in the design of vehicles and networks. By covering all of these topics, the book aims to provide a current, comprehensive, and scientifically sound treatment of the emerging field of "autonomous driving".

The book focuses on soft computing and its applications to solve real-world problems in different domains, ranging from medicine and health care, to supply chain management, image processing and cryptanalysis. It includes high-quality papers presented at the International Conference on Soft Computing: Theories and Applications (SoCTA 2018), organized by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India. Offering significant insights into soft computing for teachers and researchers alike, the book inspires more researchers to work in the field of soft computing.