

Linux Cluster Architecture Kaleidoscope

This book provides an overview of the current Internet of Things (IoT) landscape, ranging from the research, innovation and development priorities to enabling technologies in a global context. A successful deployment of IoT technologies requires integration on all layers, be it cognitive and semantic aspects, middleware components, services, edge devices/machines and infrastructures. It is intended to be a stand-alone book in a series that covers the Internet of Things activities of the IERC - Internet of Things European Research Cluster from research to technological innovation, validation and deployment. The book builds on the ideas put forward by the European Research Cluster and the IoT European Platform Initiative (IoT-EPI) and presents global views and state of the art results on the challenges facing the research, innovation, development and deployment of IoT in the next years. The IoT is bridging the physical world with virtual world and requires sound information processing capabilities for the “digital shadows” of these real things. The research and innovation in nanoelectronics, semiconductor, sensors/actuators, communication, analytics technologies, cyber-physical systems, software, swarm intelligent and deep learning capabilities are essential for the successful deployment of IoT applications. The emergence of IoT platforms with multiple functionalities enables rapid development and lower costs by offering standardized components that can be shared across multiple solutions in many industry verticals. The IoT applications will gradually move from vertical, single purpose solutions to multi-purpose and collaborative applications interacting across industry verticals, organisations and people, being one of the essential paradigms of the digital economy. Many of those applications still have to be identified and involvement of end-users including the creative sector in this innovation is crucial. The IoT applications and deployments as integrated building blocks of the new digital economy are part of the accompanying IoT policy framework to address issues of horizontal nature and common interest (i.e. privacy, end-to-end security, user acceptance, societal, ethical aspects and legal issues) for providing trusted IoT solutions in a coordinated and consolidated manner across the IoT activities and pilots. In this, context IoT ecosystems offer solutions beyond a platform and solve important technical challenges in the different verticals and across verticals. These IoT technology ecosystems are instrumental for the deployment of large pilots and can easily be connected to or build upon the core IoT solutions for different applications in order to expand the system of use and allow new and even unanticipated IoT end uses. Technical topics discussed in the book include: IntroductionDigitising industry and IoT as key enabler in the new era of Digital EconomyIoT Strategic Research and Innovation Agenda IoT in the digital industrial context: Digital Single MarketIntegration of heterogeneous systems and bridging the virtual, digital and physical worldsFederated IoT platforms and interoperabilityEvolution from intelligent devices to connected systems of systems by adding new layers of cognitive behaviour, artificial intelligence and user interfaces. Innovation through IoT ecosystemsTrust-based IoT end-to-end security, privacy framework User acceptance, societal, ethical aspects and legal issuesInternet of Things Applications

Linux Cluster ArchitectureSams Publishing

This book presents a framework for mobile information systems, focusing on quality of service and adaptability at all architectural levels. These levels range from adaptive applications to e-services, middleware, and infrastructural elements, as developed in the “Multichannel Adaptive Information Systems” (MAIS) project. The design models, methods, and tools developed in the project allow the realization of adaptive mobile information systems in a variety of different architectures.

This volume provides and explains powerful scripts that automate common database administration tasks, empowering the DBA to spend more time focusing on the critical aspects of their job.

Expert Oracle Database Architecture

Blockchain in the Industrial Internet of Things

4th European Conference on Technology Enhanced Learning, EC-TEL 2009 Nice, France, September 29–October 2, 2009 Proceedings

Mobile Information Systems

Teaching and Learning in a Digital World

Digitising the Industry - Internet of Things Connecting the Physical, Digital and Virtual Worlds

Theory, Research, and Practice

In this fifth edition of the bestselling text in organizational theory and behavior, Bolman and Deal’s update includes coverage of pressing issues such as globalization, changing workforce, multi-cultural and virtual workforces and communication, and sustainability. A full instructor support package is available including an instructor’s guide, summary tip sheets for each chapter, hot links to videos & extra resources, mini-assessments for each of the frames, and podcast Q&As with Bolman & Deal.

Gain all of the techniques, teachings, tools, and methodologies required to be an effective first-time product manager. The overarching goal of this book is to help you understand the product manager role, give you concrete examples of what a product manager does, and build the foundational skill-set that will gear you towards a career in product management. To be an effective PM in the tech industry, you need to have a basic understanding of technology. In this book you’ll get your feet wet by exploring the skills a PM needs in their toolset and cover enough ground to make the technical discussion. A PM is not expected to have the same level of depth or knowledge as a software engineer, but knowing enough to continue the conversation can be a benefit in your career in product management. A complete product manager will have a 360-degree understanding of user experience and how to craft beautiful products that are easy-to-use, with the end user in mind. You’ll continue your journey with a walk through basic UX principles and even go through the process of building a simple set of UI frames for a mock app. Aside from the technical and design expertise, a PM needs to master the social aspects of the role. Acting as a bridge between engineering, marketing, and other teams can be difficult, and this book will dive into the business and soft skills of product management. After reading Product Management Essentials you will be one of a select few technically-capable PMs who can interface with management, stakeholders, customers, and the engineering team. What You Will Learn Gain the traits of a successful PM from industry PMs, VCs, and other professionals See the day-to-day responsibilities of a PM and how the role differs across tech companies Absorb the technical knowledge necessary to interface with engineers and estimate timelines Design basic mocks, high-fidelity wireframes, and fully polished user interfaces Create core documents and handle business interactions Who This Book Is For Individuals who are eyeing a transition into a PM role or have just entered a PM role at a new organization for the first time. They currently hold positions as a software engineer, marketing manager, UX designer, or data analyst and want to move away from a feature-focused view to a high-level strategic view of the product vision.

Based on a rigorous selection of submissions to The 29th International Symposium on Computer and Information Sciences (ISCIS 2014), this book includes some of the most recent ideas and technical results in computer systems, computer science, and computer-communication networks. It offers the reader a timely access to innovative research and advances in computing and communications from many different areas of the world. The topics covered include (but are not limited to) computer architectures and digital systems, algorithms, theory, software engineering, data engineering, computational intelligence, system security, computer systems and networks, performance modeling and analysis, distributed and parallel systems, bioinformatics, computer vision and significant applications such as medical Informatics and Imaging. The 29th International Symposium on Computer and Information Sciences (ISCIS 2014) took place in Krakow Old City, Poland on October, 27–8, 2014.

This book overviews performance tuning and capacity planning for the experience professional. It also covers traditional UNIX tolls that have been ported to Linux. Coverage includes: theoretical overview of performance tuning; a discussion of the risks involved and plans for prevention; examination of popular UNIX tools; examination of native Linux performance tuning tools; concepts of capacity planning; and esigning and managing a capacity plan.

Fundamentals of 5G Mobile Networks

The Cyberlearning Opportunity and Challenge

Proceedings of the 29th International Symposium on Computer and Information Sciences

9I and 10g Programming Techniques and Solutions

29th International Workshop, CRIWGS 2006, Medina Del Campo, Spain, September 17-21, 2006, Proceedings

Groupware: Design, Implementation, and Use

Web-Based Learning

Fundamentals of 5G Mobile Networks provides an overview of the key features of the 5th Generation (5G) mobile networks, discussing the motivation for 5G and the main challenges in developing this new technology. This book provides an insight into the key areas of research that will define this new system technology paving the path towards future research and development. The book is multi-disciplinary in nature, and aims to cover a whole host of intertwined subjects that will predominantly influence the 5G landscape, including Future Internet, cloud computing, small cells and self-organizing networks (SONs), cooperative communications, dynamic spectrum management and cognitive radio, Broadcast-Broadband convergence, 5G security challenge, and green RF. The book aims to be the first of its kind towards painting a holistic picture on 5G Mobile, allowing 5G stakeholders to capture key technology trends on different layering domains and to identify potential inter-disciplinary design aspects that need to be solved in order to deliver a 5G Mobile system that operates seamlessly as a piece of the 5G networking jigsaw. Key features: • Addresses the fundamentals of 5G mobile networks serving as a useful study guide for mobile researchers and system engineers aiming to position their research in this fast evolving arena. • Develops the Small cells story together with nextG,123generation SON (self-organizing networks) systems as solutions for addressing the unprecedented traffic demand and variations across cells. • Elaborates Mobile Cloud technology and Services for future communication platforms, acting as a source of inspiration for corporations looking for new business models to harness the 5G wave. • Discusses the open issues facing broadG,123scale commercial deployment of white space networks, including the potential for applications towards the future 5G standard. • Provides a scientific assessment for broadcast and mobile-broadband convergence coupled together with a ‘win-win’ convergence solution to harmonize the broadcasting and mobile industry. • Describes the key components, trends and challenges, as well as the system requirements for 5G transceivers to support multiG,123standard radio, a source of inspiration for RF engineers and vendors to tie down the requirements and potential solutions for next generation handsets.

This book offers an overview of some recent advances in the Computational Bioacoustics methods and technology. In the focus of discussion is the pursuit of scalability, which would facilitate real-world applications of different scope and purpose, such as wildlife monitoring, biodiversity assessment, pest population control, and monitoring the spread of disease transmitting mosquitoes. The various tasks of Computational Bioacoustics are described and a wide range of audio parameterization and recognition tasks related to the automated recognition of species and sound events is discussed. Many of the Computational Bioacoustics methods were originally developed for the needs of speech, audio, or image processing, and afterwards were adapted to the requirements of automated acoustic recognition of species, or were elaborated further to address the challenges of real-world operation in 24/7 mode. The interested reader is encouraged to follow the numerous references and links to web resources for further information and insights. This book is addressed to Software Engineers, IT experts, Computer Science researchers, Bioacousticians, and other practitioners concerned with the creation of new tools and services, aimed at enhancing the technological support to Computational Bioacoustics applications.

Covering both the theoretical and practical aspects of fault-tolerant mobile systems, and fault tolerance and analysis, this book tackles the current issues of reliability-based optimization of computer networks, fault-tolerant mobile systems, and fault tolerance and reliability of high speed and hierarchical networks. The book is divided into six parts to facilitate coverage of the material by course instructors and computer systems professionals. The sequence of chapters in each part ensures the gradual coverage of issues from the basics to the most recent developments. A useful set of references, including electronic sources, is listed at the end of each chapter. Contents:Fundamental Concepts in Fault Tolerance and Reliability AnalysisFault Modeling, Simulation and DiagnosisError Control and Self-Checking CircuitsFault Tolerance in Multiprocessor SystemsFault-Tolerant Routing in Multi-Computer NetworksFault Tolerance and Reliability in Hierarchical Interconnection NetworksFault Tolerance and Reliability of Computer NetworksFault Tolerance in High Speed Switching NetworksFault Tolerance in Distributed and Mobile Computing SystemsFault Tolerance in Mobile NetworksReliability and Yield Enhancement of VLSI/WSI CircuitsDesign of fault-tolerant Processor ArraysAlgorithm-Based Fault ToleranceSystem Level Diagnosis ISystem Level Diagnosis IIFault Tolerance and Reliability of RAID SystemsHigh Availability in Computer Systems Readership: Computer engineers, computer scientists, information scientists, graduate and senior undergraduate students in information science and computer engineering. Keywords:Fault Tolerance;Reliability;Availability;Fault Modeling;Fault Diagnosis;Network ReliabilityKey Features:Comprehensive coverage of issues in fault tolerance and reliability analysisSimple treatment of difficult issues via examples with figures, tables and graphs

“This encyclopedia offers a comprehensive knowledge of multimedia information technology from an economic and technological perspective”--Provided by publisher.

Encyclopedia of Multimedia Technology and Networking

Urban Screens Reader

Elegance, Evolution, and a Few Fearless Hacks

Proceedings of the 20th International Conference on Interactive Collaborative Learning – Volume 2

Proceedings of the 9th International Conference on Interactive Collaborative and Blended Learning (ICBL2020)

A Guide to the Future of Nanoelectronics

The Zero Comments: interactually renowned media theorist and ‘net critic’ Geert Lovink revitalises worn out concepts about the Internet and interrogates the latest hype surrounding blogs and social network sites. In this third volume of his studies into critical Internet culture, following the influential Dark Fiber and My First Recession, Lovink develops a ‘general theory of blogging.’ He unpacks the ways that blogs exhibit a ‘nihilist impulse’ to empty out established meaning structures. Blogs, Lovink argues, are bringing about the decay of traditional broadcast media, and they are driven by an in-crowd dynamic in which social ranking is a primary concern. The lowest rung of the new Internet hierarchy are those blogs and sites that receive no user feedback or ‘zero comments’. Zero Comments also explores other important changes to Internet culture, as well, including the silent globalization of the Net in which the West is no longer the main influence behind new media culture, as countries like India, China and Brazil expand their influence and looks forward to speculate on the Net impact of organized networks, free cooperation and distributed aesthetics.

Web-Based Learning: Theory, Research, and Practice explores the state of the art in the research and use of technology in education and training from a learning perspective. This edited book is divided into three major sections: “Policy, Practice, and Implementation Issues — an overview of policy issues, as well as tools and designs to facilitate implementation of Web-based learning; “Theory and Research Issues — a look at theoretical foundations of current and future Web-based learning; the section also includes empirical studies of Web-based learning; and “Summary and Conclusions — highlights key issues in each chapter and outlines a research and development agenda. Within this framework the book addresses several important issues, including: the primacy of learning as a focus for technology; the need to integrate technology with high standards and content expectations; the paucity of and need to support the development of technology-based curriculum and tools; the need to integrate assessment in technology and improve assessment through the use of technology; and the need for theory-driven research and evaluation studies to increase our knowledge and efficacy. Web-Based Learning is designed for professionals and graduate students in the educational technology, human performance, assessment and evaluation, vocational/technical, and educational psychology communities.

Recent developments in information and communication technology (ICT) have paved the way for a world of advanced communication, intelligent information processing and ubiquitous access to information and services. The ability to work, communicate, interact, conduct business, and enjoy digital entertainment virtually anywhere is r- idly becoming commonplace due to a multitude of small devices, ranging from mobile phones and PDAs to RFID tags and wearable computers. The increasing number of connected devices and the proliferation of networks provide no indication of a sl- down in this tendency. On the negative side, misuse of this same technology entails serious risks in various aspects, such as privacy violations, advanced electronic crime, cyber terrorism, and even enlargement of the digital divide. In extreme cases it may even threaten basic principles and human rights. The foremost-one issues raise an important question: Is our society ready to adopt the technological advances in ubiq- tous networking, next-generation Internet, and pervasive computing? To what extent will it manage to evolve promptly and efficiently to a next-generation society, ad- ing the forthcoming ICT challenges? The Third International ICST Conference on e- Learning and Adaptive Learning, September 23–25, 2009 focused on the above issues. Through a compreh- sive list of thematic areas under the title “Next-Generation Society: Technological and Legal Issues,” the 2009 conference provided comprehensive reports and stimulated discussions on the technological, ethical, legal, and political challenges ahead of us.

The Real and Virtual Worlds of Spatial Planning brings together contributions from leaders in landscape, transportation, and urban planning. They present case studies – from North America, Europe, Australasia, Asia and Africa – that ground the exploration of ideas in the realities of sustainable urban and regional planning, landscape planning and present the prospects for using virtual worlds for modeling spatial environments and their application in planning. The first part explores the challenges for planning in the real world that are caused by the dynamics of socio-spatial systems as well as by the contradictions of their evolutionary trends related to their spatial layout. The second part presents diverse concepts to model, analyze, visualize, monitor and control socio-spatial systems by using virtual worlds

The Hacker’s Dictionary

Biodiversity Monitoring and Assessment

Design and Analysis of Reliable and Fault-Tolerant Computer Systems

6th International Conference, CloudComp 2015, Daejeon, South Korea, October 28–29, 2015, Revised Selected Papers

Network Management Fundamentals

The Real and Virtual Worlds of Spatial Planning

Linux Performance Tuning and Capacity Planning

The 9th International Conference on Interactive, Collaborative, and Blended Learning: Technology-Supported Learning; Education 4.0; Pedagogical and Psychological Issues. With growing calls for affordable and quality education worldwide, we are currently witnessing a significant transformation in the development of post-secondary education and pedagogical practices. Higher education is undergoing innovative transformations to respond to our urgent needs. The change is hastened by the global pandemic that is currently underway. The 9th International Conference on Interactive, Collaborative, and Blended Learning: Visions and Concepts for Education 4.0 was conducted in an online format at McMaster University, Canada, from 14th to 15th October 2020, to deliberate and share the innovations and strategies. This conference’s main objectives were to discuss guidelines and new concepts for engineering education in higher education institutions, including emerging technologies in learning; to debate new conference format in worldwide pandemic and post-pandemic conditions; and to discuss new technology-based tools and resources that drive the education in non-traditional ways such as Education 4.0. Since its beginning in 2007, this conference is devoted to new learning approaches with a focus on applications and experiences in the fields of interactive, collaborative, and blended learning and related new technologies. Currently, the ICBL conferences are forums to exchange recent trends, research findings, and disseminate practical experiences in collaborative and blended learning, and engineering pedagogy. The conference bridges the gap between ‘pure’ scientific research and the everyday work of educators. Interested readership includes policymakers, academics, educators, researchers in pedagogy and learning theory, school teachers, industry-centric educators, continuing education practitioners, etc.

Smart-lighting design is a rapidly growing area of interactive and cross-disciplinary design that is defining new practices in the profession. SuperLux is an international celebration of the ingenuity and artistry of the latest lighting technology and the Smart Light movement. The books three sections focus on projects that use light to animate architecture and media screens; new forms of lighting in industrial zones and public areas, including wayfinding and streetlighting; and interactive installations in urban spaces. Each section is punctuated by essays by leading experts and designers in the field.

A playful and profound survey of the concept of computation across the entire spectrum of human thought-written by a mathematician novelist who spent twenty years as a Silicon Valley computer scientist. The logic is correct, and the conclusions are startling. Simple rules can generate gnarly patterns. Physics obeys laws, but the outcomes aren’t predictable. Free will is real. The mind is like a quantum computer. Social strata are skewed by universal scaling laws. And there can never be a simple trick for answering all possible questions about our world’s natural processes. We live amid splendor beyond our control.

This book gathers the Proceedings of the 20th International Conference on Interactive Collaborative Learning (ICL2017), held in Budapest, Hungary on 27–29 September 2017. The authors are currently witnessing a significant transformation in the development of education. The impact of globalisation on all areas of human life, the exponential acceleration of technological developments and global markets, and the need for flexibility and agility are essential and challenging elements of this process that have to be tackled in general, but especially in engineering education. To face these current real-world challenges, higher education has to find innovative ways to quickly respond to them. Since its inception in 1998, this conference has been devoted to new approaches in learning with a focus on collaborative learning. Today the ICL conferences offer a forum for exchange concerning relevant trends and research results, and for sharing practical experience gained while developing and testing elements of new technologies and pedagogies in the learning context.

Computational Bioacoustics

Third International Conference, e-Democracy 2008, Athens, Greece, September 23-25, 2008, Revised Selected Papers

Information Sciences and Systems 2014

Reverse Engineering Code with IDA Pro

Zero Comments

Next Generation Society: Technological and Legal Issues

Linux Cluster Architecture

This book constitutes the refereed proceedings of the 4th European Conference on Technology Enhanced Learning, EC-TEL 2009, held in Nice, France in September/October 2009. The 35 revised full papers, 17 short papers, and 35 posters presented were carefully reviewed and selected from 136 paper submissions and 22 poster submissions. The papers are organized in topical sections on adaptation and personalization, interoperability, semantic Web, Web 2.0., data mining and social networks, collaboration and social knowledge construction, learning communities and communities of practice, learning problem and project-based learning, inquiry, learning, learning design, motivation, engagement, learning games, and human factors and evaluation. Beschrijving van vijfentwintig open source applicaties.

The term ‘network’ is now applied to everything from the Internet to terrorist-cell systems. But the word’s ubiquity has also made it a cliché, a concept at once recognizable yet hard to explain. Network Aesthetics, in exploring how popular culture mediates our experience with interconnected life, reveals the network’s role as a way for people to construct and manage their world—and their view of themselves. Each chapter considers how popular media and artistic forms make sense of decentralized network metaphors and infrastructures. Patrick Jagoda first examines narratives from the 1990s and 2000s, including the novel Underworld, the film Syriaana, and the television series The Wire, all of which play with network forms to promote reflection on domestic crisis and imperial decline in contemporary America. Jagoda then looks at digital media that are interactive, nonlinear, and dependent on connected audiences to show how recent approaches, such as those in the videogame Journey, open up space for participatory and improvisational thought. Contributing to fields as diverse as literary criticism, digital studies, media theory, and American studies, Network Aesthetics brilliantly demonstrates that, in today’s world, networks are something that can not only be known, but also felt, inhabited, and, crucially, transformed.

If you want to master the art and science of reverse engineering code with IDA Pro for security R&D or software debugging, this is the book for you. Highly organized and sophisticated criminal entities are constantly developing more complex, obfuscated, and armored viruses, worms, Trojans, and botnets. IDA Pro’s interactive interface and programmable development language provide you with complete control over code disassembly and debugging. This is the only book which focuses exclusively on the world’s most powerful and popular tool for reverse engineering code. *Reverse Engineering: Help Debug To follow along with this chapter you must download a file called [DANGER]INFECTED[MALWARE]DANGER..._nuff said. *Portable Executable (PE) and Executable and Linking Formats (ELF) Understand the physical layout of PE and ELF files, and analyze the components that are essential to reverse engineering. *Break Hostile Code Armor and Write your own Exploits Understand execution flow, trace functions, recover hard coded passwords, find vulnerable functions, backtrack execution, and craft a buffer overflow. *Master Debugging Debug in IDA Pro, use a debugger while reverse engineering, perform heap and stack address modification, and use other debuggers. *Stop Anti-Reversing Anti-reversing, like reverse engineering or coding in assembly, is an art form. The trick of course is to try to stop the person reversing the application. Find out how! *Track a Protocol through a Binary and Recover its Message Structure Trace execution flow from a read event, determine the structure of a protocol, determine if the protocol has any undocumented messages, and use IDA Pro to determine the functions that process a particular message.

The Architecture of Open Source Applications

Cloud Computing

Gaming and the Arts of Storytelling

Radical Solutions and Open Science

Fostering Learning in the Networked World

Introduction to Information Retrieval

Chips 2020

This book examines the notion of storytelling in videogames. This topic allows new perspectives on the enduring problem of narrative in digital games, while also opening up different avenues of inquiry. The collection looks at storytelling in games from many perspectives. Topics include the remediation of Conrad ’s Heart of Darkness in games such as Spec Ops: The Line; the storytelling similarities in Twin Peaks and Deadly Premonition, a new concept of ‘ choice poetics ’ ; the esthetics of Alien films and games, and a new theoretical overview of early game studies on narrative

Discover the Hidden Mathematics of Modern Geometry Fractals, the never-ending geometric-mathematical patterns existing throughout nature, are revealed in the shapes of continents, galaxies, snowflakes, and grains of sand. In this fascinating and seminal volume, renowned pioneering-mathematician Benoit B. Mandelbrot explains his work on fractal geometry, mathematically translating the description of these complex shapes of nature. Until Mandelbrot developed the concept of fractal geometry in the 1960s and 70s, most mathematicians believed these irregular shapes were too fragmented and amorphous to be described mathematically. Mandelbrot’s revolutionary concept brought order to a variety of seemingly unshakable problems in biology, botany, and financial markets. Broad in application, this groundbreaking work will inform not just mathematicians, but anyone that appreciates the natural elegance of patterns made manifest. Featuring illustrations of mathematically defined shapes, Mandelbrot describes how geometric patterns relate to every aspect of the physical world around us.

Annotation A guide to the popular version control system, this book walks Git users through the source control implications of how a team is structured, and how the software is delivered to clients. The book then covers not just how to use popular work flow strategies, such as GitHub, but why, and under what circumstances, these strategies should be applied.

Class-tested and coherent, this textbook teaches classical and web information retrieval, including web search and the related areas of text classification and text clustering from basic concepts. It gives an up-to-date treatment of all aspects of the design and implementation of systems for gathering, indexing, and searching documents; methods for evaluating systems; and an introduction to the use of machine learning methods on text collections. All the important ideas are explained using examples and figures, making it perfect for introductory courses in information retrieval for advanced undergraduates and graduate students in computer science. Based on feedback from extensive classroom experience, the book has been carefully structured in order to make teaching more natural and effective. Slides and additional exercises (with solutions for lecturers) are also available through the book’s supporting website to help course instructors prepare their lectures.

Tools and Techniques for Becoming an Effective Technical Product Manager

Learning Spaces

Smart Lighting Design for Cities and Buildings

Network Aesthetics

Artistry, Choice, and Leadership

Blogging and Critical Internet Culture

Git for Teams

The chips in present-day cell phones already contain billions of sub-100-nanometer transistors. By 2020, however, we will see systems-on-chips with trillions of 100-nanometer transistors. But this will be the end of the miniaturization, because yet smaller transistors, containing just a few control atoms, are subject to statistical fluctuations and thus no longer useful. We also need to worry about a potential energy crisis, because in less than five years from now, with current chip technology, the internet alone would consume the total global electrical power! This book presents a new, sustainable roadmap towards ultra-low-energy (femto-Joule), high-performance electronics. The focus is on the energy-efficiency of the various chip functions: sensing, processing, and communication, in a top-down spirit involving new architectures such as silicon brains, ultra-low-voltage circuits, energy harvesting, and 3D silicon technologies. Recognized world leaders from industry and from the research community share their views of this nanoelectronics future. They discuss, among other things, ultra-low-voltage, self-powered, self-healing, self-repairing, self-healing, and core supported by autonomous implants and by personal carbons, safe and efficient mobility assisted by co-pilots equipped with intelligent micro-electromechanical systems, and internet-based education for a billion people from kindergarten to retirement. This book should help and interest all those who will have to make decisions associated with future electronics: students, graduates, educators, and researchers, as well as managers, investors, and policy makers.

Introduction: Towards Sustainable 2020 Nanoelectronics.- From Microelectronics to Nanoelectronics.- The Future of Eight Chip Technologies.- Analog-Digital Interfaces.- Interconnects and Transceivers.- Requirements and Markets for Nanoelectronics.- ITRS: The International Technology Roadmap for Semiconductors.- Nanolithography.- Power-Efficient Design Challenges.- Superprocessors and Supercomputers.- Towards Terabit Memories.- 3D Integration for Wireless Multimedia.- The Next-Generation Mobile User-Experience.- MEMS (Micro-Electro-Mechanical Systems) for Automotive and Consumer.- Vision Sensors and Cameras.- Digital Neural Networks for New Media.- Retinal Implants for Blind Patients.- Silicon Brains.- Energy Harvesting and Chip Autonomy.- The Energy Crisis.- The Extreme-Technology Industry.- Education and Research for the Age of Nanoelectronics.- 2020 World with Chips.

This document is a collection of slang terms used by various subcultures of computer hackers. Though some technical material is included for background and flavor, it is not a technical dictionary, what we describe here is the language hackers use among themselves for fun, social communication, and technical debate.

** Based on a proven best-seller and written by the most recognized Oracle expert in the world and * Fully revised book, covering both the 9i and 10g versions of the database * Based on what is widely-recognized as the best Oracle book ever written. It defines what Oracle really is, and why it is so powerful * Inspired by the thousands of questions Tom has answered on his http://asktom.oracle.com site. It defines what Oracle really is, and why it is so powerful It and it tackles the problems that developers and DBAs struggle with every day Provides a 21st Century Agenda for the Nat. Science Foundn. (NSF). Contents: (1) Intro.- Why Cyberlearning and Why Now?; (2) Background: How We Got Here and Why Now; (3) Strategies for Building a Cyberlearning Infrastructure; (4) Opportunities for Action; (5) Recommendations: NSF NSDL and ITTEST Programs: Cyberlearning and the Evolving National STEM Digital Library (NSDL); Cyberlearning and the Evolving ITTEST Program; (6) Summary Recommendations; Help Build a Vibrant Cyberlearning Field by Promoting Cross-Disciplinary Communities of Cyberlearning Researchers and Practitioner; (7) Append A and Policies to Promote Open Educational Resources. Charts and tables. This is a print on demand report.*

Information Technology - New Generations

The Lifebox, the Seashell, and the Soul: What Gnarly Computation Taught Me About Ultimate Reality, The Meaning of Life, And How to Be Happy

Product Management Essentials

Fractals

Reframing Organizations

A User-Centered Approach to Creating Efficient Workflows in Git

Visions and Concepts for Education 4.0

This book provides you with an accessible overview of network management covering management not just of networks themselves but also of services running over those networks. It also explains the different technologies that are used in network management and how they relate to each other.--[book cover].

This volume presents a collection of peer-reviewed, scientific articles from the 15th International Conference on Information Technology - New Generations, held at Las Vegas. The collection addresses critical areas of Machine Learning, Networking and Wireless Communications, Cybersecurity, Data Mining, Software Engineering, High Performance Computing Architectures, Computer Vision, Health, Bioinformatics, and Education.

This open access book presents how Open Science is a powerful tool to boost Higher Education. The book introduces the reader into Open Access, Open Technology, Open Data, Open Research results, Open Licensing, Open Accreditation, Open Certification, Open Policy and, of course, Open Educational Resources. It brings all these key topics from major players in the field; experts that present the current state of the art and the forthcoming steps towards a useful and effective implementation. This book presents radical, transgenic solutions for recurrent and long-standing problems in Higher Education. Every chapter presents a clear view and a related solution to make Higher Education progress and implement tools and strategies to improve the user's performance and learning experience. This book is part of a trilogy with companion volumes on Radical Solutions & Learning Analytics and Radical Solutions & eLearning. This work was published by Saint Philip Street Press pursuant to a Creative Commons license permitting commercial use. All rights not granted by the work's license are retained by the author or authors.

Cluster computers provide a low-cost alternative to multiprocessor systems for many applications. Building a cluster computer is within the reach of any computer user with solid C programming skills and a knowledge of operating systems, hardware, and networking. This book leads you through the design and assembly of such a system, and shows you how to measure and tune its overall performance. A cluster computer is a multicomputer, a network of node computers running distributed software that makes them work together as a team. Distributed software turns a collection of networked computers into a distributed system. It presents the user with a single-system image and gives the system its personality. Software can turn a network of computers into a transaction processor, a supercomputer, or even a novel design of your own. Some of the techniques used in this book's distributed algorithms might be new to many readers, so several of the chapters are dedicated to such topics. You will learn about the hardware needed to network several PCs, the operating system files that need to be changed to support that network, and the multitasking and the interprocess communications skills needed to put the network to good use. Finally, there is a simple distributed transaction processing application in the book. Readers can experiment with it, customize it, or use it as a basis for something completely different.

Form, Chance, and Dimension
Oracle DBA Automation Scripts

**15th International Conference on Information Technology
Superlux**

**Infrastructure and Design for Adaptivity and Flexibility
Learning in the Synergy of Multiple Disciplines**

This book constitutes the proceedings of the 6th International Conference on Cloud Computing, CloudComp 2015, held in Daejeon, South Korea, in October 2015. The 36 revised full papers were carefully reviewed and selected from 89 submissions and cover topics such as virtualization and management on cloud; resource management, models and performance; mobile cloud and media services; pervasive cloud applications, services and testbeds; cloud-enabling techniques and devices.