Open Source Lab How To Build Your Own Hardware And Reduce Research Costs

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F5 Networks TMOS Administration Study Guide - Philip Jönsson 2018-02-26
From the authors of the best-selling, highly rated F5 Application Delivery Fundamentals Study Guide comes the next book in the series covering the 201 TMOS Administration exam. Whether you’re a novice or heavyweight, the book is designed to provide you with everything

you need to know and understand in order to pass the exam and become an F5 Certified BIG-IP Administrator at last. All network, protocol and application level subjects and F5 specific topics found in the exam blueprint are covered in full and in detail. The book is useful not only for those planning to achieve the certification but also for administrators working with BIG-IP platforms every day who wish to widen their knowledge or have a reference to hand when necessary. The book contains over 350 diagrams, over 90 test questions and a number of lab exercises to aid and re-enforce understanding and assist in preparing for the exam. A full guide to setting up a virtual lab environment is also included. Download of the PDF file has been disabled. To download the lab components, please visit https://www.f5books.eu/building-your-own-lab/

Forge Your Future with Open Source - VM (Vicky) Brasseur 2018-10-08

Free and open source is the foundation of software development, and it's built by people just like you. Discover the fundamental tenets that drive the movement. Take control of your career by selecting the right project to meet your professional goals. Master the language and avoid the pitfalls that typically ensnare new contributors. Join a community of like-minded people and change the world. Programmers, writers, designers, and everyone interested in software will make their mark through free and open source software contributions. Free and open source software is the default choice for the programming languages and technologies which run our world today, and it's all built and maintained by people just like you. No matter your skill level or area of expertise, with this book you will contribute to free and open source software projects. Using this practical approach you'll understand not only the mechanics of contributing, but also how doing so helps your career as well as the community. This book doesn't assume that you're a programmer, or

even that you have prior experience with free and open source software. Learn what open source is, where it came from, and why it's important. Start on the right foot by mastering the structure and tools you need before you contribute. Choose the right project for you, amplifying the impact of your contribution. Submit your first contribution, whether it's code, writing, design, or community organising. Find out what to do when things don't go the way you expect. Discover how to start your own project and make it friendly and welcoming to contributors. Anyone can contribute! Make your mark today and help others while also helping yourself.

Build Your Own Security Lab - Michael Gregg 2010-08-13

If your job is to design or implement IT security solutions or if you're studying for any security certification, this is the how-to guide you've been looking for. Here's how to assess your needs, gather the tools, and create a controlled environment in which you can experiment, test, and develop the solutions that work. With liberal examples from real-world scenarios, it tells you exactly how to implement a strategy to secure your systems now and in the future. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

The Annotated Build-It-Yourself Science Laboratory - Windell Oskay 2015-04-30

Raymond E. Barrett's Build-It-Yourself Science Laboratory is a classic book that took on an audacious task: to show young readers in the 1960s how to build a complete working science lab for chemistry, biology, and physics--and how to perform experiments with those tools. The experiments in this book are fearless and bold by today's standards--any number of the experiments might never be mentioned in a modern book for young readers! Yet, many from previous generations fondly remember how we as a society used to embrace scientific learning. This new version of Barrett's book has been

updated for today's world with annotations and updates from Windell Oskay of Evil Mad Scientist Laboratories, including extensive notes about modern safety practices, suggestions on where to find the parts you need, and tips for building upon Barrett's ideas with modern technology. With this book, you'll be ready to take on your own scientific explorations at school, work, or home.

Designing Web APIs - Brenda Jin 2018-08-29

Using a web API to provide services to application developers is one of the more satisfying endeavors that software engineers undertake. But building a popular API with a thriving developer ecosystem is also one of the most challenging. With this practical guide, developers, architects, and tech leads will learn how to navigate complex decisions for designing, scaling, marketing, and evolving interoperable APIs. Authors Brenda Jin, Saurabh Sahni, and Amir Shevat explain API design theory and provide hands-on exercises for building your web API and managing its operation in production. You'll also learn how to build and maintain a following of app developers. This book includes expert advice, worksheets, checklists, and case studies from companies including Slack, Stripe, Facebook, Microsoft, Cloudinary, Oracle, and GitHub. Get an overview of request-response and event-driven API design paradigms Learn best practices for designing an API that meets the needs of your users Use a template to create an API design process Scale your web API to support a growing number of API calls and use cases Regularly adapt the API to reflect changes to your product or business Provide developer resources that include API documentation, samples, and tools

Clinical Engineering Handbook - Ernesto Iadanza 2019-12-06

Clinical Engineering Handbook, Second Edition, covers modern clinical engineering topics, giving experienced professionals the necessary skills and knowledge for this fast-evolving field.

Featuring insights from leading international experts, this book presents traditional practices, such as healthcare technology management, medical device service, and technology application. In addition, readers will find valuable information on the newest research and groundbreaking developments in clinical engineering, such as health technology assessment, disaster preparedness, decision support systems, mobile medicine, and prospects and guidelines on the future of clinical engineering. As the biomedical engineering field expands throughout the world, clinical engineers play an increasingly important role as translators between the medical, engineering and business professions. In addition, they influence procedures and policies at research facilities, universities, and in private and government agencies. This book explores their current and continuing reach and its importance. Presents a definitive, comprehensive, and up-to-date resource on clinical engineering Written by worldwide experts with ties to IFMBE, IUPESM, Global CE Advisory Board, IEEE, ACCE, and more Includes coverage of new topics, such as Health Technology Assessment (HTA), Decision Support Systems (DSS), Mobile Apps, Success Stories in Clinical Engineering, and Human Factors Engineering

Engineering Open-Source Medical Devices - Arti Ahluwalia 2021

This book focuses on the challenges and potentials of open source and collaborative design approaches and strategies in the biomedical field. It provides a comprehensive set of good practices and methods for making these safe, innovative and certifiable biomedical devices reach patients and provide successful solutions to healthcare issues. The chapters are sequenced to follow the complete lifecycle of open source medical technologies. The information provided is eminently practical, as it is supported by real cases of study, in which

collaboration among medical professionals, engineers and technicians, patients and patient associations, policy makers, regulatory bodies, and citizens has proven beneficial. The book is also supported by an online infrastructure, UBORA, through which open-source medical devices can be collaboratively developed and shared for the democratization of medical technology and for promoting accessible biomedical engineering education.

Knowing New Biotechnologies - Matthias Wienroth 2015-02-20

The areas of personal genomics and citizen science draw on – and bring together – different cultures of producing and managing knowledge and meaning. They also cross local and global boundaries, are subjects and objects of transformation and mobility of research practices, evaluation and multi-stakeholder groups. Thirdly, they draw on logics of 'convergence': new links between, and new kinds of, stakeholders, spaces, knowledge, practices, challenges and opportunities. This themed collection of essays from nationally and internationally leading scholars and commentators advances and widens current debates in Science and Technology Studies and in Science Policy concerning 'converging technologies' by complementing the customary focus on technical aspirations for convergence with the analysis of the practices and logics of scientific, social and cultural knowledge production that constitute contemporary technoscience. In case studies from across the globe, contributors discuss the ways in which science and social order are linked in areas such as direct-to consumer genetic testing and do-it-yourself biotechnologies. Organised into thematic sections, 'Knowing New Biotechnologies' explores: • ways of understanding the dynamics and logics of convergences in emergent biotechnologies • governance and regulatory issues around technoscientific convergences • democratic

aspects of converging technologies – lay involvement in scientific research and the co-production of biotechnology and social and cultural knowledge.

Open-source Lab - Joshua Pearce 2013

Open-Source Lab: How to Build Your Own Hardware and Reduce Scientific Research Costs details the development of the free and open-source hardware revolution. The combination of open-source 3D printing and microcontrollers running on free software enables scientists, engineers, and lab personnel in every discipline to develop powerful research tools at unprecedented low costs. After reading Open-Source Lab, you will be able to: Lower equipment costs by making your own hardware Build open-source hardware for scientific research Actively participate in a community in which scientific results are more easily replicated and cited Numerous examples of technologies and the open-source user and developer communities that support them Instructions on how to take advantage of digital design sharing Explanations of Arduinos and RepRaps for scientific use A detailed guide to open-source hardware licenses and basic principles of intellectual property

Additive Manufacturing Handbook - Adedeji B. Badiru 2017-05-19

Theoretical and practical interests in additive manufacturing (3D printing) are growing rapidly. Engineers and engineering companies now use 3D printing to make prototypes of products before going for full production. In an educational setting faculty, researchers, and students leverage 3D printing to enhance project-related products. Additive Manufacturing Handbook focuses on product design for the defense industry, which affects virtually every other industry. Thus, the handbook provides a wide range of benefits to all segments of business, industry, and government. Manufacturing has undergone a major advancement and technology shift in recent

years.

3D Printed Microfluidic Devices - Savas Tasoglu 2019-01-10

This book is a printed edition of the Special Issue "3D Printed Microfluidic Devices" that was published in Micromachines

Metasploit Toolkit for Penetration Testing, Exploit Development, and Vulnerability Research - David Maynor 2011-04-18

Metasploit Toolkit for Penetration Testing, Exploit Development, and Vulnerability Research is the first book available for the Metasploit Framework (MSF), which is the attack platform of choice for one of the fastest growing careers in IT security: Penetration Testing. The book will provide professional penetration testers and security researchers with a fully integrated suite of tools for discovering, running, and testing exploit code. This book discusses how to use the Metasploit Framework (MSF) as an exploitation platform. The book begins with a detailed discussion of the three MSF interfaces: msfweb, msfconsole, and msfcli .This chapter demonstrates all of the features offered by the MSF as an exploitation platform. With a solid understanding of MSF's capabilities, the book then details techniques for dramatically reducing the amount of time required for developing functional exploits. By working through a real-world vulnerabilities against popular closed source applications, the reader will learn how to use the tools and MSF to quickly build reliable attacks as standalone exploits. The section will also explain how to integrate an exploit directly into the Metasploit Framework by providing a line-by-line analysis of an integrated exploit module. Details as to how the Metasploit engine drives the behind-the-scenes exploitation process will be covered, and along the way the reader will come to understand the advantages of exploitation frameworks. The final section of the book examines the Meterpreter payload system and teaches readers to develop completely new

extensions that will integrate fluidly with the Metasploit Framework. A November 2004 survey conducted by "CSO Magazine" stated that 42% of chief security officers considered penetration testing to be a security priority for their organizations The Metasploit Framework is the most popular open source exploit platform, and there are no competing books

Informed Architecture - Marco Hemmerling 2017-07-19

This book connects the different topics and professions involved in information technology approaches to architectural design, ranging from computer-aided design, building information modeling and programming to simulation, digital representation, augmented and virtual reality, digital fabrication and physical computation. The contributions include experts' academic and practical experiences and findings in research and advanced applications, covering the fields of architecture, engineering, design and mathematics. What are the conditions, constraints and opportunities of this digital revolution for architecture? How do processes change and influence the result? What does it mean for the collaboration and roles of the partners involved. And last but not least: how does academia reflect and shape this development and what does the future hold? Following the sequence of architectural production - from design to fabrication and construction up to the operation of buildings - the book discusses the impact of computational methods and technologies and its consequences for the education of future architects and designers. It offers detailed insights into the processes involved and considers them in the context of our technical, historical, social and cultural environment. Intended mainly for academic researchers, the book is also of interest to master's level students.

Building Open Source Hardware - Alicia Gibb 2014-12-07

A guide to designing and manufacturing open

source hardware covers such topics as creating derivatives of existing projects, using source files, moving from prototype to commercial production, and writing documentation for other hardware hackers.

Open Source Software: Implementation and Management - Paul Kavanagh 2004-08-19

In 2004/5, over half of IT professionals will be looking at open source, most for the first time. This book provides key tools for System administrators, Network Administrators, IT project managers, and consultants who must evaluate and deploy open source software. This book details open source successes so far, explains which scenarios are the most realistic opportunities now, then gives the details needed to select these solutions, adopt the best tools and practices, introduce them to an organization, implement and manage them. The IT professional can use this book to review opportunities in their organization, evaluate components such as Apache, Linux, and OpenOffice against systems they know, and follow up in detail on their specific interests here and through referred resources. *Deployment scenarios categorized by function and industry *Rules of thumb on where and when open source software is or is not the right choice *Roadmaps for deployment in terms of the components of open source

Create, Share, and Save Money Using Open-Source Projects - Joshua M. Pearce 2020-10-30

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Live a more sustainable and economical life using open-source technology Aimed at beginning hobbyists and makers, this engaging guide explains many ways to save money by making use of free, open-source technologies on everything from music, books, maps and videos to photographs, art, clothing, and cooking. The book shows the potential of at-home

manufacturing, recycling projects—even how to score free big-ticket items, including housing and electricity. All the projects have big money saving in mind, but also big fun! Written by a leader in the field of open-source technology, Create, Share, and Save Money Using Open-Source Projects lays out the many ways in which a common person can employ these resources on a small scale to live a more economical and sustainable lifestyle. You will get DIY projects that demonstrate making and sharing woodworking, electronics, mapping, 3D printing and much more. • An easy to understand introduction to concepts of free and open-source sharing • Includes numerous examples of technologies and the open-source communities that support them • Puts makers and families in a position to save substantial amounts of money

RECENT PROGRESS ON ELECTROCHEMISTRY AT THE IBERIAN PENINSULA - JUAN DANIEL MOZO 2020-12

This book is a compilation of research works on electrochemistry in the broadest of its meanings, carried out by Spanish and Portuguese researchers around 2019. It aims to collect the most significant of our research and to show the excellent level that these works have in comparison with the international state of the art. The selection of works, in an extended abstract format, is based on the papers presented as invited plenary conferences and keynote oral communications at the XL Meeting of the Specialized Electrochemistry Group of the Spanish Royal Society of Chemistry and the XX Iberian Electrochemistry Meeting, which took place in the city of Huelva (Spain) between 9th and 12th July 2019. In an attempt to cover the work of Iberian electrochemists in the most complete and representative way possible, several invited chapters have been added to this set of works. On some occasions, the authors have reported on potential legal problems regarding the publication rights of their work, mainly due to the high interest in their results

and the fact that they had already been submitted to very high impact journals for publication. In this case, they have been allowed to replace their original work by a mini review of their laboratory's line of research, keeping as much as possible the same research topic.

Handbook of Smart Materials, Technologies, and Devices - Chaudhery Mustansar Hussain 2022-12-11

This handbook brings together technical expertise, conceptual background, applications, and societal aspects of Industry 4.0: the evolution of automation and data exchange in fabrication technologies, materials processing, and device manufacturing at both experimental and theoretical model scales. The book assembles all the aspects of Industry 4.0, starting from the emergence of the concept to the consequences of its progression. Drawing on expert contributors from around the world, the volume details the technologies that sparked the fourth revolution and illustrates their characteristics, potential, and methods of use in the industrial and societal domains. In addition, important topics such as ethics, privacy and security are considered in a reality where all data is shared and saved remotely. The collection of contribution serve a very broad audience working in the fields of science and engineering, chemical engineering, materials science, nanotechnology, energy, environment, green chemistry, sustainability, electrical and electronic engineering, solid-state physics, surface science, aerosol technology, chemistry, colloid science, device engineering, and computer technology. This handbook ideal reference libraries in universities and industrial institutes, government and independent institutes, individual research groups and scientists.

Make: the Annotated Build-It-Yourself Science Laboratory - Windell Oskay 2015-04-25

Raymond E. Barrett's Build-It-Yourself Science

Laboratory is a classic book that took on an audacious task: to show young readers in the 1960s how to build a complete working science lab for chemistry, biology, and physics--and how to perform experiments with those tools. The experiments in this book are fearless and bold by today's standards--any number of the experiments might never be mentioned in a modern book for young readers! Yet, many from previous generations fondly remember how we as a society used to embrace scientific learning. This new version of Barrett's book has been updated for today's world with annotations and updates from Windell Oskay of Evil Mad Scientist Laboratories, including extensive notes about modern safety practices, suggestions on where to find the parts you need, and tips for building upon Barrett's ideas with modern technology. With this book, you'll be ready to take on your own scientific explorations at school, work, or home.

INCREaSE - António Mortal 2018-01-04

This book presents the proceedings of the INternational CongRess on Engineering and Sustainability in the XXI cEntury – INCREaSE 2017, which was held in Faro, Portugal, from October 11 to 13, 2017. The book promotes a multidisciplinary approach to sustainable development, exploring a number of transversal challenges. It discusses natural and anthropogenic risks; tourism and sustainability; healthy food; water and society; sustainable mobility; renewable energy; and energy efficiency, offering perspectives from civil, electronics, mechanical and food engineering.

Build Your Own Cybersecurity Testing Lab: Low-cost Solutions for Testing in Virtual and Cloud-based Environments - Ric Messier 2020-02-28

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Manage your own robust, inexpensive cybersecurity testing environment This hands-on guide shows

clearly how to administer an effective cybersecurity testing lab using affordable technologies and cloud resources. Build Your Own Cybersecurity Testing Lab: Low-cost Solutions for Testing in Virtual and Cloud-based Environments fully explains multiple techniques for developing lab systems, including the use of Infrastructure-as-Code, meaning you can write programs to create your labs quickly, without manual steps that could lead to costly and frustrating mistakes. Written by a seasoned IT security professional and academic, this book offers complete coverage of cloud and virtual environments as well as physical networks and automation. Included with the book is access to videos that demystify difficult concepts. Inside, you will discover how to: • Gather network requirements and build your cybersecurity testing lab • Set up virtual machines and physical systems from inexpensive components • Select and configure the necessary operating systems • Gain remote access through SSH, RDP, and other remote access protocols • Efficiently isolate subnets with physical switches, routers, and VLANs • Analyze the vulnerabilities and challenges of cloud-based infrastructures • Handle implementation of systems on Amazon Web Services, Microsoft Azure, and Google Cloud Engine • Maximize consistency and repeatability using the latest automation tools

The Business and Economics of Linux and Open Source - Martin Fink 2003

Open Source has become a buzzword synonymous with growth and change in computing. This book examines the Open Source movement, what's worked and why, and explains the technology to the mainstream investor and manager looking to replicate the successes of the Open Source movement.

Working in Public - Nadia Eghbal 2020-07-14

Open source software has undergone significant shift over the past 20 years. Today, often unseen solo operators maintain code used by millions. In

Working in Public, Nadia Eghbal takes an inside look at modern open software development and its evolution over the last two decades--and its ramifications for an internet reorienting itself around individual creators. She examines GitHub as a platform; the structures, roles, incentives, and relationships of open source projects; and their heretofore unexplored maintenance, via the work that software requires its creators and the costs of production that must be maintained. Open source offers us a model through which to understand the challenges faced by online creators on all platforms."--Publisher description

Create, Share, and Save Money Using Open-Source Projects - Joshua M. Pearce 2020-10-30

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Live a more sustainable and economical life using open-source technology! Designed for beginning hobbyists and makers, this engaging guide is filled with ways to save money by making use of free and open-source technologies on a wide and impressive range of products. Written by a leader in the field of open-source technology, the book reveals the potential of at-home manufacturing and recycling projects—and even how to score free big-ticket items, including housing and electricity. All the projects have big money saving in mind, but also big fun! Create, Share, and Save Money Using Open-Source Projects lays out the many ways in which you can employ these resources on a small scale to live a more economical and sustainable lifestyle. You'll find tons of DIY projects that demonstrate how to use open-source software and hardware to save money on: Digital photographs and videos Music, software, and instruments Scientific equipment Paper and audio books Maps and GIS data Patterns for clothing Security systems Cars Electricity [Bob frowns on "and much more."

Open-Source Lab - Joshua M. Pearce 2013-10-04

Open-Source Lab: How to Build Your Own Hardware and Reduce Scientific Research Costs details the development of the free and open-source hardware revolution. The combination of open-source 3D printing and microcontrollers running on free software enables scientists, engineers, and lab personnel in every discipline to develop powerful research tools at unprecedented low costs. After reading Open-Source Lab, you will be able to: Lower equipment costs by making your own hardware Build open-source hardware for scientific research Actively participate in a community in which scientific results are more easily replicated and cited Numerous examples of technologies and the open-source user and developer communities that support them Instructions on how to take advantage of digital design sharing Explanations of Arduinos and RepRaps for scientific use A detailed guide to open-source hardware licenses and basic principles of intellectual property

Python for the Lab - Aquiles Carattino 2020-10-11

Python for the Lab is the first book covering how to develop instrumentation software. It is ideal for researchers willing to automatize their setups and bring their experiments to the next level. The book is the product of countless workshops at different universities, and a carefully design pedagogical strategy. With an easy to follow and task-oriented design, the book uncovers all the best practices in the field. It also shows how to design code for long-term maintainability, opening the doors of fruitful collaboration among researchers from different labs.

The New Shop Class - Joan Horvath 2015-05-11

The New Shop Class connects the worlds of the maker and hacker with that of the scientist and engineer. If you are a parent or educator or a

budding maker yourself, and you feel overwhelmed with all of the possible technologies, this book will get you started with clear discussions of what open source technologies like 3D printers, Arduinos, robots and wearable tech can really do in the right hands. Written by real "rocket scientist" Joan Horvath, author of Mastering 3D Printing, and 3D printing expert Rich Cameron (AKA whosawhatsis), The New Shop Class is a friendly, down-to-earth chat about how hands-on making things can lead to a science career. Get practical suggestions about how to use technologies like 3D printing, Arduino, and simple electronics Learn how to stay a step ahead of the young makers in your life and how to encourage them in maker activities Discover how engineers and scientists got their start, and how their mindsets mirror that of the maker

Technology and Innovation in Learning, Teaching and Education - Meni Tsitouridou 2019-05-28

This book constitutes the thoroughly refereed post-conference proceedings of the First International Conference on Technology and Innovation in Learning, Teaching and Education, TECH-EDU 2018, held in Thessaloniki, Greece, on June 20-22, 2018. The 30 revised full papers along with 18 short papers presented were carefully reviewed and selected from 80 submissions.The papers are organized in topical sections on new technologies and teaching approaches to promote the strategies of self and co-regulation learning (new-TECH to SCRL); eLearning 2.0: trends, challenges and innovative perspectives; building critical thinking in higher education: meeting the challenge; digital tools in S and T learning; exploratory potentialities of emerging technologies in education; learning technologies; digital technologies and instructional design; big data in education and learning analytics.

The Network Security Test Lab - Michael Gregg 2015-08-10

The ultimate hands-on guide to IT security and proactivedefense The Network Security Test Lab is a hands-on, step-by-stepguide to ultimate IT security implementation. Covering the fullcomplement of malware, viruses, and other attack technologies, thisessential guide walks you through the security assessment andpenetration testing process, and provides the set-up guidance youneed to build your own security-testing lab. You'll look inside theactual attacks to decode their methods, and learn how to runattacks in an isolated sandbox to better understand how attackerstarget systems, and how to build the defenses that stop them.You'll be introduced to tools like Wireshark, Networkminer, Nmap,Metasploit, and more as you discover techniques for defendingagainst network attacks, social networking bugs, malware, and themost prevalent malicious traffic. You also get access to opensource tools, demo software, and a bootable version of Linux tofacilitate hands-on learning and help you implement your newskills. Security technology continues to evolve, and yet not a week goesby without news of a new security breach or a new exploit beingreleased. The Network Security Test Lab is the ultimateguide when you are on the front lines of defense, providing themost up-to-date methods of thwarting would-be attackers. Get acquainted with your hardware, gear, and test platform Learn how attackers penetrate existing security systems Detect malicious activity and build effective defenses Investigate and analyze attacks to inform defense strategy The Network Security Test Lab is your complete, essentialguide.

Penetration Tester's Open Source Toolkit - Jeremy Faircloth 2011-08-25

Penetration Tester’s Open Source Toolkit, Third Edition, discusses the open source tools available to penetration testers, the ways to use them, and the situations in which they apply. Great commercial penetration testing tools can be very expensive and sometimes hard to use or

of questionable accuracy. This book helps solve both of these problems. The open source, no-cost penetration testing tools presented do a great job and can be modified by the student for each situation. This edition offers instruction on how and in which situations the penetration tester can best use them. Real-life scenarios support and expand upon explanations throughout. It also presents core technologies for each type of testing and the best tools for the job. The book consists of 10 chapters that covers a wide range of topics such as reconnaissance; scanning and enumeration; client-side attacks and human weaknesses; hacking database services; Web server and Web application testing; enterprise application testing; wireless penetrating testing; and building penetration test labs. The chapters also include case studies where the tools that are discussed are applied. New to this edition: enterprise application testing, client-side attacks and updates on Metasploit and Backtrack. This book is for people who are interested in penetration testing or professionals engaged in penetration testing. Those working in the areas of database, network, system, or application administration, as well as architects, can gain insights into how penetration testers perform testing in their specific areas of expertise and learn what to expect from a penetration test. This book can also serve as a reference for security or audit professionals. Details current open source penetration testing tools Presents core technologies for each type of testing and the best tools for the job New to this edition: Enterprise application testing, client-side attacks and updates on Metasploit and Backtrack

Additive Manufacturing Technologies and Applications - Salvatore Brischetto 2018-07-09

This book is a printed edition of the Special Issue "Additive Manufacturing Technologies and Applications" that was published in Technologies

Practical Laboratory Automation - Matheus C. Carvalho 2017-06-19

By closing the gap between general

programming books and those on laboratory automation, this timely book makes accessible to every laboratory technician or scientist what has traditionally been restricted to highly specialized professionals. Following the idea of "learning by doing", the book provides an introduction to scripting using AutoIt, with many workable examples based on real-world scenarios. A large portion of the book tackles the traditionally hard problem of instrument synchronization, including remote, web-based synchronization. Automated result processing, database operation, and creation of graphical user interfaces are also examined. Readers of this book can immediately profit from the new knowledge in terms of both increased efficiency and reduced costs in laboratory operation. Above all, laboratory technicians and scientists will learn that they are free to choose whatever equipment they desire when configuring an automated analytical setup, regardless of manufacturers suggested specifications.

Building a Second Brain - Tiago Forte 2022-06-14

A revolutionary approach to enhancing productivity, creating flow, and vastly increasing your ability to capture, remember, and benefit from the unprecedented amount of information all around us. For the first time in history, we have instantaneous access to the world’s knowledge. There has never been a better time to learn, to contribute, and to improve ourselves. Yet, rather than feeling empowered, we are often left feeling overwhelmed by this constant influx of information. The very knowledge that was supposed to set us free has instead led to the paralyzing stress of believing we’ll never know or remember enough. Now, this eye-opening and accessible guide shows how you can easily create your own personal system for knowledge management, otherwise known as a Second Brain. As a trusted and organized digital repository of your most valued ideas, notes, and creative work synced across all your devices and

platforms, a Second Brain gives you the confidence to tackle your most important projects and ambitious goals. Discover the full potential of your ideas and translate what you know into more powerful, more meaningful improvements in your work and life by Building a Second Brain.

Agricultural Robotics - Fouad Sabry 2021-10-05 What Is Agricultural Robotics Every day, we are reminded that the robot revolution is advancing. From self-driving cars to automated cashiers, robots are increasingly becoming a part of our daily lives. While most of our attention has been focused on robots in the manufacturing industry, there is one essential field of activity that they may affect more than any other. Indeed, Food is an absolute requirement that must be produced at whatever cost. As a result, we require either more farmers or new methods of producing food with little manpower. The robots are on their way to save the day. Are you prepared for agricultural robotics? How You Will Benefit (I) Insights, and validations about the following topics: Chapter 1: Agricultural Robot Chapter 2: Agricultural Drone Chapter 3: Driverless Tractor Chapter 4: Farmbot Chapter 5: Open-Source Ecology Chapter 6: Cloud Seeding Chapter 7: Aerial Seeding Chapter 8: Mechanized Agriculture Chapter 9: Agricultural Machinery Chapter 10: Precision Agriculture Chapter 11: Information and Communications Technology in Agriculture Chapter 12: Machine Vision (II) Answering the public top questions about agricultural robotics. (III) Real world examples for the usage of agricultural robotics in many fields. (IV) 17 appendices to explain, briefly, 266 emerging technology in each industry to have 360-degree full understanding of agricultural robotics' technologies. Who This Book Is For Professionals, undergraduate and graduate students, enthusiasts, hobbyists, and those who want to go beyond basic knowledge or information for any kind of agricultural robotics.

The Open Organization - Jim Whitehurst 2015

This is a story of reinvention. Jim Whitehurst, celebrated president and CEO of one of the world's most revolutionary software companies, tells first-hand his journey from traditional manager (Delta Air Lines, Boston Consulting Group) and “chief” problem solver to CEO of one of the most open organizational environments he'd ever encountered. This challenging transition, and what Whitehurst learned in the interim, has paved the way for a new way of managing—one this modern leader sees as the only way companies will successfully function in the future. Whitehurst says beyond embracing the technology that has so far disrupted entire industries, companies must now adapt their management and organizational design to better fit the Information Age. His mantra? “Adapt or die.” Indeed, the successful company Whitehurst leads—the open source giant Red Hat—has become the organizational poster child for how to reboot, redesign, and reinvent an organization for a decentralized, digital age. Based on open source principles of transparency, participation, and collaboration, “open management” challenges conventional business ideas about what companies are, how they run, and how they make money. This book provides the blueprint for putting it into practice in your own firm. He covers challenges that have been missing from the conversation to date, among them: how to scale engagement; how to have healthy debates that net progress; and how to attract and keep the “Social Generation” of workers. Through a mix of vibrant stories, candid lessons, and tested processes, Whitehurst shows how Red Hat has blown the traditional operating model to pieces by emerging out of a pure bottom up culture and learning how to execute it at scale. And he explains what other companies are, and need to be doing to bring this open style into all facets of the organization. By showing how to apply open source methods to everything from structure, management, and strategy to a firm's customer and partner relationships, leaders and teams will

now have the tools needed to reach a new level of work. And with that new level of work comes unparalleled success. The Open Organization is your new resource for doing business differently. Get ready to make traditional management thinking obsolete.

The Routledge Companion to Labor and Media - Richard Maxwell 2015-07-16

Labor resides at the center of all media and communication production, from the workers who create the information technologies that form the dynamic core of the global capitalist system and the designers who create media content to the salvage workers who dismantle the industry's high-tech trash. The Routledge Companion to Labor and Media is the first book to bring together representative research from the diverse body of scholarly work surrounding this often fragmentary field, and seeks to provide a comprehensive resource for the study and teaching of media and labor. Essays examine work on the mostly unglamorous side of media and cultural production, technology manufacture, and every occupation in between. Specifically, this book features: -wide-ranging international case studies spanning the major global hubs of media labor; -interdisciplinary approaches for thinking about and analyzing class and labor in information communication technology (ICT), consumer electronics (CE), and media/cultural production; -an overview of global political economic conditions affecting media workers; -reports on chemical environments and their effect on the health of media workers and consumers; -activist scholarship on media and labor, and inspiring stories of resistance and solidarity.

Research Methods for Studying Groups and Teams - Andrea Hollingshead 2012-05-22

This volume provides an overview of the methodological issues and challenges inherent in the study of small groups from the perspective of seasoned researchers in communication, psychology and other fields in the behavioral

and social sciences. It summarizes the current state of group methods in a format that is readable, insightful, and useful for both new and experienced group researchers. This collection of essays will inspire new and established researchers alike to look beyond their current methodological approaches, covering both traditional and new methods for studying groups and exploring the full range of groups in face-to-face and online settings. The volume will be an important addition to graduate study on group research and will be a valuable reference for established group researchers, consultants and other practitioners. The essays in this volume when considered as a whole will be a contemporary interdisciplinary integration on group research methods.

Penetration Tester's Open Source Toolkit - Jeremy Faircloth 2007-11-16

Penetration testing a network requires a delicate balance of art and science. A penetration tester must be creative enough to think outside of the box to determine the best attack vector into his own network, and also be expert in using the literally hundreds of tools required to execute the plan. This second volume adds over 300 new pentesting applications included with BackTrack 2 to the pen tester's toolkit. It includes the latest information on Snort, Nessus, Wireshark, Metasploit, Kismet and all of the other major Open Source platforms. • Perform Network Reconnaissance Master the objectives, methodology, and tools of the least understood aspect of a penetration test. • Demystify Enumeration and Scanning Identify the purpose and type of the target systems, obtain specific information about the versions of the services that are running on the systems, and list the targets and services. • Hack Database Services Understand and identify common database service vulnerabilities, discover database services, attack database authentication mechanisms, analyze the contents of the database, and use the database to obtain access

to the host operating system. • Test Web Servers and Applications Compromise the Web server due to vulnerabilities on the server daemon itself, its unhardened state, or vulnerabilities within the Web applications. • Test Wireless Networks and Devices Understand WLAN vulnerabilities, attack WLAN encryption, master information gathering tools, and deploy exploitation tools. • Examine Vulnerabilities on Network Routers and Switches Use Traceroute, Nmap, ike-scan, Cisco Torch, Finger, Nessus, onesixtyone, Hydra, Ettercap, and more to attack your network devices. • Customize BackTrack 2 Torque BackTrack 2 for your specialized needs through module management, unique hard drive installations, and USB installations. • Perform Forensic Discovery and Analysis with BackTrack 2 Use BackTrack in the field for forensic analysis, image acquisition, and file carving. • Build Your Own PenTesting Lab Everything you need to build your own fully functional attack lab.

Feeding Everyone No Matter What - David Denkenberger 2014-11-14

Feeding Everyone No Matter What presents a scientific approach to the practicalities of planning for long-term interruption to food production. The primary historic solution developed over the last several decades is increased food storage. However, storing up enough food to feed everyone would take a significant amount of time and would increase the price of food, killing additional people due to inadequate global access to affordable food. Humanity is far from doomed, however, in these situations - there are solutions. This book provides an order of magnitude technical analysis comparing caloric requirements of all humans for five years with conversion of existing vegetation and fossil fuels to edible food. It presents mechanisms for global-scale conversion including: natural gas-digesting bacteria, extracting food from leaves, and conversion of fiber by enzymes, mushroom or bacteria growth,

or a two-step process involving partial decomposition of fiber by fungi and/or bacteria and feeding them to animals such as beetles, ruminants (cows, deer, etc), rats and chickens. It includes an analysis to determine the ramp rates for each option and the results show that careful planning and global cooperation could ensure the bulk of humanity and biodiversity could be maintained in even in the most extreme circumstances. Summarizes the severity and probabilities of global catastrophe scenarios, which could lead to a complete loss of agricultural production More than 10 detailed mechanisms for global-scale solutions to the food crisis and their evaluation to test their viability Detailed roadmap for future R&D for human survival after global catastrophe

Open Source - Fadi P. Deek 2007-11-05

From the Internet's infrastructure to operating systems like GNU/Linux, the open source movement comprises some of the greatest accomplishments in computing over the past quarter century. Its story embraces technological advances, unprecedented global collaboration, and remarkable tools for facilitating distributed development. The evolution of the Internet enabled an enormous expansion of open development, allowing developers to exchange information and ideas without regard to constraints of space, time, or national boundary. The movement has had widespread impact on education and government, as well as historic cultural and commercial repercussions. Part I discusses key open source applications, platforms, and technologies used in open development. Part II explores social issues ranging from demographics and psychology to legal and economic matters. Part III discusses the Free Software Foundation, open source in the public sector (government and education), and future prospects.