

Principles Of Information Security

Building an Effective Security Program for Distributed Energy Resources and Systems Build a critical and effective security program for DERs Building an Effective Security Program for Distributed Energy Resources and Systems requires a unified approach to establishing a critical security program for DER systems and Smart Grid applications. The methodology provided integrates systems security engineering principles, techniques, standards, and best practices. This publication introduces engineers on the design, implementation, and maintenance of a security program for distributed energy resources (DERs), smart grid, and industrial control systems. It provides security professionals with understanding the specific requirements of industrial control systems and real-time constrained applications for power systems. This book: Describes the cybersecurity needs for DERs and power grid as critical infrastructure Introduces the information security principles to assess and manage the security and privacy risks of the emerging Smart Grid technologies Outlines the functions of the security program as well as the scope and differences between traditional IT system security requirements and those required for industrial control systems such as SCADA systems Offers a full array of resources— cybersecurity concepts, frameworks, and emerging trends Security Professionals and Engineers can use Building an Effective Security Program for Distributed Energy Resources and Systems as a reliable resource that is dedicated to the essential topic of security for distributed energy resources and power grids. They will find standards, guidelines, and recommendations from standards organizations, such as ISO, IEC, NIST, IEEE, ENISA, ISA, ISACA, and ISF, conveniently included for reference within chapters.

While Computer Security is a broader term which incorporates technologies, protocols, standards and policies to ensure the security of the computing systems including the computer hardware, software and the information stored in it, Cyber Security is a specific, growing field to protect computer networks (offline and online) from unauthorized access, botnets, phishing scams, etc. Machine learning is a branch of Computer Science which enables computing machines to adopt new behaviors on the basis of observable and verifiable data and information. It can be applied to ensure the security of the computers and the information by detecting anomalies using data mining and other such techniques. This book will be an invaluable resource to understand the importance of machine learning and data mining in establishing computer and cyber security. It emphasizes important security aspects associated with computer and cyber security along with the analysis of machine learning and data mining based solutions. The book also highlights the future research domains in which these solutions can be applied.

Furthermore, it caters to the needs of IT professionals, researchers, faculty members, scientists, graduate students, research scholars and software developers who seek to carry out research and develop combating solutions in the area of cyber security using machine learning based approaches. It is an extensive source of information for the readers belonging to the field of Computer Science and Engineering, and Cyber Security professionals. Key Features: This book contains examples and illustrations to demonstrate the principles, algorithms, challenges and applications of machine learning and data mining for computer and cyber security. It showcases important security aspects and current trends in the field. It provides an insight of the future research directions in the field. Contents of this book help to prepare the students for exercising better defense in terms of understanding the motivation of the attackers and how to deal with and mitigate the situation using machine learning based approaches in better manner.

Now updated—your expert guide to twenty-first century information security Information security is a rapidly evolving field. As businesses and consumers become increasingly dependent on complex multinational information systems, it is more imperative than ever to protect the confidentiality and integrity of data. Featuring a wide array of new information on the most current security issues, this fully updated and revised edition of Information Security: Principles and Practice provides the skills and knowledge readers need to tackle any information security challenge. Taking a practical approach to information security by focusing on real-world examples, this book is organized around four major themes: Cryptography: classic cryptosystems, symmetric key cryptography, public key cryptography, hash functions, random numbers, information hiding, and cryptanalysis Access control: authentication and authorization, password-based security, ACLs and capabilities, multilevel security and compartments, covert channels and inference control, security models such as BLP and Biba's model, firewalls, and intrusion detection systems Protocols: simple authentication protocols, session keys, perfect forward secrecy, timestamps, SSH, SSL, IPSec, Kerberos, WEP, and GSM Software: flaws and malware, buffer overflows, viruses and worms, malware detection, software reverse engineering, digital rights management, secure software development, and operating systems security This Second Edition features new discussions of relevant security topics such as the SSH and WEP protocols, practical RSA timing attacks, botnets, and security certification. New background material has been added, including a section on the Enigma cipher and coverage of the classic "orange book" view of security. Also featured are a greatly expanded and upgraded set of homework problems and many new figures, tables, and graphs to illustrate and clarify complex topics and problems. A comprehensive solutions manual is available to assist in course development. Minimizing theory while providing clear, accessible content, Information Security remains the premier text for students and instructors in information technology, computer science, and engineering, as well as for professionals working in these fields.

Computer Security: Principles and Practice, 2e, is ideal for courses in Computer/Network Security. In recent years, the need for education in computer security and related topics has grown dramatically – and is essential for anyone studying Computer Science or Computer Engineering. This is the only text available to provide integrated, comprehensive, up-to-date coverage of the broad range of topics in this subject. In addition to an extensive pedagogical program, the book provides unparalleled support for both research and modeling projects, giving students a broader perspective. The Text and Academic Authors Association named Computer Security: Principles and Practice, 1e, the winner of the Textbook Excellence Award for the best Computer Science textbook of 2008.

Your expert guide to information security As businesses and consumers become more dependent on complex multinational information systems, the need to understand and devise sound information security systems has never been greater. This title takes a practical approach to information security by focusing on real-world examples. While not sidestepping the theory, the emphasis is on developing the skills and knowledge that security and information technology students and professionals need to face their challenges. The book is organized around four major themes: * Cryptography: classic cryptosystems, symmetric key cryptography, public key cryptography, hash functions, random numbers, information hiding, and cryptanalysis * Access

control: authentication and authorization, password-based security, ACLs and capabilities, multilevel and multilateral security, covert channels and inference control, BLP and Biba's models, firewalls, and intrusion detection systems * Protocols: simple authentication protocols, session keys, perfect forward secrecy, timestamps, SSL, IPsec, Kerberos, and GSM * Software: flaws and malware, buffer overflows, viruses and worms, software reverse engineering, digital rights management, secure software development, and operating systems security Additional features include numerous figures and tables to illustrate and clarify complex topics, as well as problems ranging from basic to challenging to help readers apply their newly developed skills. A solutions manual and a set of classroom-tested PowerPoint(r) slides will assist instructors in their course development. Students and professors in information technology, computer science, and engineering, and professionals working in the field will find this reference most useful to solve their information security issues. An Instructor's Manual presenting detailed solutions to all the problems in the book is available from the Wiley editorial department. An Instructor Support FTP site is also available.

In today's technology-driven environment, there is an ever-increasing demand for information delivery. A compromise has to be struck between security and availability. This book is a pragmatic guide to information assurance for both business professionals and technical experts. This second edition includes the security of cloud-based resources."

The real threat to information system security comes from people, not computers. That's why students need to understand both the technical implementation of security controls, as well as the softer human behavioral and managerial factors that contribute to the theft and sabotage of proprietary data. Addressing both the technical and human side of IS security, Dhillon's Principles of Information Systems Security: Texts and Cases equips managers (and those training to be managers) with an understanding of a broad range of issues related to information system security management, and specific tools and techniques to support this managerial orientation. Coverage goes well beyond the technical aspects of information system security to address formal controls (the rules and procedures that need to be established for bringing about success of technical controls), as well as informal controls that deal with the normative structures that exist within organizations.

This book explores fundamental principles for securing IT systems and illustrates them with hands-on experiments that may be carried out by the reader using accompanying software. The experiments highlight key information security problems that arise in modern operating systems, networks, and web applications. The authors explain how to identify and exploit such problems and they show different countermeasures and their implementation. The reader thus gains a detailed understanding of how vulnerabilities arise and practical experience tackling them. After presenting the basics of security principles, virtual environments, and network services, the authors explain the core security principles of authentication and access control, logging and log analysis, web application security, certificates and public-key cryptography, and risk management. The book concludes with appendices on the design of related courses, report templates, and the basics of Linux as needed for the assignments. The authors have successfully taught IT security to students and professionals using the content of this book and the laboratory setting it describes. The book can be used in undergraduate or graduate laboratory courses, complementing more theoretically oriented courses, and it can also be used for self-study by IT professionals who want hands-on experience in applied information security. The authors' supporting software is freely available online and the text is supported throughout with exercises. Information Security: Principles and Practices, Second Edition Everything You Need to Know About Modern Computer Security, in One Book Clearly explains all facets of information security in all 10 domains of the latest Information Security Common Body of Knowledge [(ISC)² CBK]. Thoroughly updated for today's challenges, technologies, procedures, and best practices. The perfect resource for anyone pursuing an IT security career. Fully updated for the newest technologies and best practices, Information Security: Principles and Practices, Second Edition thoroughly covers all 10 domains of today's Information Security Common Body of Knowledge. Two highly experienced security practitioners have brought together all the foundational knowledge you need to succeed in today's IT and business environments. They offer easy-to-understand, practical coverage of topics ranging from security management and physical security to cryptography and application development security. This edition fully addresses new trends that are transforming security, from cloud services to mobile applications, "Bring Your Own Device" (BYOD) strategies to today's increasingly rigorous compliance requirements. Throughout, you'll find updated case studies, review questions, and exercises—all designed to reveal today's real-world IT security challenges and help you overcome them. Learn how to -- Recognize the evolving role of IT security -- Identify the best new opportunities in the field -- Discover today's core information security principles of success -- Understand certification programs and the CBK -- Master today's best practices for governance and risk management -- Architect and design systems to maximize security -- Plan for business continuity -- Understand the legal, investigatory, and ethical requirements associated with IT security -- Improve physical and operational security -- Implement effective access control systems -- Effectively utilize cryptography -- Improve network and Internet security -- Build more secure software -- Define more effective security policies and standards -- Preview the future of information security

Principles of Computer System Design is the first textbook to take a principles-based approach to the computer system design. It identifies, examines, and illustrates fundamental concepts in computer system design that are common across operating systems, networks, database systems, distributed systems, programming languages, software engineering, security, fault tolerance, and architecture. Through carefully analyzed case studies from each of these disciplines, it demonstrates how to apply these concepts to tackle practical system design problems. To support the focus on design, the text identifies and explains abstractions that have proven successful in practice such as remote procedure call, client/service organization, file systems, data integrity, consistency, and authenticated messages. Most computer systems are built using a handful of such abstractions. The text describes how these abstractions are implemented, demonstrates how they are used in different systems, and prepares the reader to apply them in future designs. The book is recommended for junior and senior undergraduate students in Operating Systems, Distributed Systems, Distributed Operating Systems and/or Computer Systems Design courses; and professional computer systems designers. Features: Concepts of computer system design guided by fundamental principles. Cross-cutting approach that identifies abstractions common to networking, operating systems, transaction systems, distributed systems, architecture, and software engineering. Case studies that make the abstractions real: naming (DNS and the URL); file systems (the UNIX file system); clients and services (NFS); virtualization (virtual machines); scheduling (disk arms); security (TLS). Numerous pseudocode fragments that provide concrete examples of abstract concepts. Extensive support. The authors and MIT OpenCourseWare provide on-line, free of charge, open educational resources, including additional chapters, course syllabi, board layouts and slides, lecture videos, and an archive of

lecture schedules, class assignments, and design projects.

This book investigates the goals and policy aspects of cyber security education in the light of escalating technical, social and geopolitical challenges. The past ten years have seen a tectonic shift in the significance of cyber security education. Once the preserve of small groups of dedicated educators and industry professionals, the subject is now on the frontlines of geopolitical confrontation and business strategy. Global shortages of talent have created pressures on corporate and national policy for workforce development. Cyber Security Education offers an updated approach to the subject as we enter the next decade of technological disruption and political threats. The contributors include scholars and education practitioners from leading research and education centres in Europe, North America and Australia. This book provides essential reference points for education policy on the new social terrain of security in cyberspace and aims to reposition global debates on what education for security in cyberspace can and should mean. This book will be of interest to students of cyber security, cyber education, international security and public policy generally, as well as practitioners and policy-makers.

PART OF THE JONES & BARTLETT LEARNING INFORMATION SYSTEMS SECURITY & ASSURANCE SERIES Revised and updated with the latest information from this fast-paced field, *Fundamentals of Information System Security, Second Edition* provides a comprehensive overview of the essential concepts readers must know as they pursue careers in information systems security. The text opens with a discussion of the new risks, threats, and vulnerabilities associated with the transformation to a digital world, including a look at how business, government, and individuals operate today. Part 2 is adapted from the Official (ISC)2 SSCP Certified Body of Knowledge and presents a high-level overview of each of the seven domains within the System Security Certified Practitioner certification. The book closes with a resource for readers who desire additional material on information security standards, education, professional certifications, and compliance laws. With its practical, conversational writing style and step-by-step examples, this text is a must-have resource for those entering the world of information systems security. New to the Second Edition: - New material on cloud computing, risk analysis, IP mobility, OMNIBus, and Agile Software Development. - Includes the most recent updates in Information Systems Security laws, certificates, standards, amendments, and the proposed Federal Information Security Amendments Act of 2013 and HITECH Act. - Provides new cases and examples pulled from real-world scenarios. - Updated data, tables, and sidebars provide the most current information in the field.

Develop and implement an effective end-to-end security program Today's complex world of mobile platforms, cloud computing, and ubiquitous data access puts new security demands on every IT professional. *Information Security: The Complete Reference, Second Edition* (previously titled *Network Security: The Complete Reference*) is the only comprehensive book that offers vendor-neutral details on all aspects of information protection, with an eye toward the evolving threat landscape. Thoroughly revised and expanded to cover all aspects of modern information security—from concepts to details—this edition provides a one-stop reference equally applicable to the beginner and the seasoned professional. Find out how to build a holistic security program based on proven methodology, risk analysis, compliance, and business needs. You'll learn how to successfully protect data, networks, computers, and applications. In-depth chapters cover data protection, encryption, information rights management, network security, intrusion detection and prevention, Unix and Windows security, virtual and cloud security, secure application development, disaster recovery, forensics, and real-world attacks and countermeasures. Included is an extensive security glossary, as well as standards-based references. This is a great resource for professionals and students alike. Understand security concepts and building blocks Identify vulnerabilities and mitigate risk Optimize authentication and authorization Use IRM and encryption to protect unstructured data Defend storage devices, databases, and software Protect network routers, switches, and firewalls Secure VPN, wireless, VoIP, and PBX infrastructure Design intrusion detection and prevention systems Develop secure Windows, Java, and mobile applications Perform incident response and forensic analysis

In today's modern age of information, new technologies are quickly emerging and being deployed into the field of information technology. Cloud computing is a tool that has proven to be a versatile piece of software within IT. Unfortunately, the high usage of Cloud has raised many concerns related to privacy, security, and data protection that have prevented cloud computing solutions from becoming the prevalent alternative for mission critical systems. Up-to-date research and current techniques are needed to help solve these vulnerabilities in cloud computing. *Modern Principles, Practices, and Algorithms for Cloud Security* is a pivotal reference source that provides vital research on the application of privacy and security in cloud computing. While highlighting topics such as chaos theory, soft computing, and cloud forensics, this publication explores present techniques and methodologies, as well as current trends in cloud protection. This book is ideally designed for IT specialists, scientists, software developers, security analysts, computer engineers, academicians, researchers, and students seeking current research on the defense of cloud services.

Principles of Information Security Cengage Learning

This book provides professionals with the necessary managerial, technical, and legal background to support investment decisions in security technology. It discusses security from the perspective of hackers (i.e., technology issues and defenses) and lawyers (i.e., legal issues and defenses). This cross-disciplinary book is designed to help users quickly become current on what has become a fundamental business issue. This book covers the entire range of best security practices—obtaining senior management commitment, defining information security goals and policies, transforming those goals into a strategy for monitoring intrusions and compliance, and understanding legal implications. Topics also include computer crime, electronic evidence, cyber terrorism, and computer forensics. For professionals in information systems, financial accounting, human resources, health care, legal policy, and law. Because neither technical nor legal expertise is necessary to understand the concepts and issues presented, this book can be required reading for everyone as part of an enterprise-wide computer security awareness program.

Written by leading information security educators, this fully revised, full-color computer security textbook covers CompTIA's fastest-growing credential, CompTIA Security+.

Principles of Computer Security, Fourth Edition is a student-tested, introductory computer security textbook that provides comprehensive coverage of computer and network security fundamentals in an engaging and dynamic full-color design. In addition to teaching key computer security concepts, the textbook also fully prepares you for CompTIA Security+ exam SY0-401 with 100% coverage of all exam objectives. Each chapter begins with a list of topics to be covered and features sidebar exam and tech tips, a chapter

summary, and an end-of-chapter assessment section that includes key term, multiple choice, and essay quizzes as well as lab projects. Electronic content includes CompTIA Security+ practice exam questions and a PDF copy of the book. Key features: CompTIA Approved Quality Content (CAQC) Electronic content features two simulated practice exams in the Total Tester exam engine and a PDF eBook Supplemented by Principles of Computer Security Lab Manual, Fourth Edition, available separately White and Conklin are two of the most well-respected computer security educators in higher education Instructor resource materials for adopting instructors include: Instructor Manual, PowerPoint slides featuring artwork from the book, and a test bank of questions for use as quizzes or exams Answers to the end of chapter sections are not included in the book and are only available to adopting instructors Learn how to: Ensure operational, organizational, and physical security Use cryptography and public key infrastructures (PKIs) Secure remote access, wireless networks, and virtual private networks (VPNs) Authenticate users and lock down mobile devices Harden network devices, operating systems, and applications Prevent network attacks, such as denial of service, spoofing, hijacking, and password guessing Combat viruses, worms, Trojan horses, and rootkits Manage e-mail, instant messaging, and web security Explore secure software development requirements Implement disaster recovery and business continuity measures Handle computer forensics and incident response Understand legal, ethical, and privacy issues

Management of Information Security, Third Edition focuses on the managerial aspects of information security and assurance. Topics covered include access control models, information security governance, and information security program assessment and metrics. Coverage on the foundational and technical components of information security is included to reinforce key concepts. This new edition includes up-to-date information on changes in the field such as revised sections on national and international laws and international standards like the ISO 27000 series. With these updates, Management of Information Security continues to offer a unique overview of information security from a management perspective while maintaining a finger on the pulse of industry changes and academic relevance. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

The Internet of Things (IoT), with its technological advancements and massive innovations, is building the idea of inter-connectivity among everyday life objects. With an explosive growth in the number of Internet-connected devices, the implications of the idea of IoT on enterprises, individuals, and society are huge. IoT is getting attention from both academia and industry due to its powerful real-time applications that raise demands to understand the entire spectrum of the field. However, due to increasing security issues, safeguarding the IoT ecosystem has become an important concern. With devices and information becoming more exposed and leading to increased attack possibilities, adequate security measures are required to leverage the benefits of this emerging concept. Internet of Things Security: Principles, Applications, Attacks, and Countermeasures is an extensive source that aims at establishing an understanding of the core concepts of IoT among its readers and the challenges and corresponding countermeasures in the field. Key features: Containment of theoretical aspects, as well as recent empirical findings associated with the underlying technologies Exploration of various challenges and trade-offs associated with the field and approaches to ensure security, privacy, safety, and trust across its key elements Vision of exciting areas for future research in the field to enhance the overall productivity This book is suitable for industrial professionals and practitioners, researchers, faculty members, and students across universities who aim to carry out research and development in the field of IoT security.

Demand for individuals with cybersecurity skills is high, with 83,000 current jobs in the workplace with an expected growth rate of over 30 percent in the coming years. Principles of Cybersecurity is an exciting, full-color, and highly illustrated learning resource that prepares you with skills needed in the field of cybersecurity. By studying this text, you will learn about security threats and vulnerabilities. The textbook begins with an introduction to the field of cybersecurity and the fundamentals of security. From there, it covers how to manage user security, control the physical environment, and protect host systems. Nontraditional hosts are also covered, as is network infrastructure, services, wireless network security, and web and cloud security. Penetration testing is discussed along with risk management, disaster recover, and incident response. Information is also provided to prepare you for industry-recognized certification. By studying Principles of Cybersecurity, you will learn about the knowledge needed for an exciting career in the field of cybersecurity. You will also learn employability skills and how to be an effective contributor in the workplace.

Managing Risk and Information Security: Protect to Enable, an ApressOpen title, describes the changing risk environment and why a fresh approach to information security is needed. Because almost every aspect of an enterprise is now dependent on technology, the focus of IT security must shift from locking down assets to enabling the business while managing and surviving risk. This compact book discusses business risk from a broader perspective, including privacy and regulatory considerations. It describes the increasing number of threats and vulnerabilities, but also offers strategies for developing solutions. These include discussions of how enterprises can take advantage of new and emerging technologies—such as social media and the huge proliferation of Internet-enabled devices—while minimizing risk. With ApressOpen, content is freely available through multiple online distribution channels and electronic formats with the goal of disseminating professionally edited and technically reviewed content to the worldwide community.

Here are some of the responses from reviewers of this exceptional work: “Managing Risk and Information Security is a perceptive, balanced, and often thought-provoking exploration of evolving information risk and security challenges within a business context. Harkins clearly connects the needed, but often-overlooked linkage and dialog between the business and technical worlds and offers actionable strategies. The book contains eye-opening security insights that are easily understood, even by the curious layman.”

Fred Wettling, Bechtel Fellow, IS&T Ethics & Compliance Officer, Bechtel “As disruptive technology innovations and escalating cyber threats continue to create enormous

information security challenges, *Managing Risk and Information Security: Protect to Enable* provides a much-needed perspective. This book compels information security professionals to think differently about concepts of risk management in order to be more effective. The specific and practical guidance offers a fast-track formula for developing information security strategies which are lock-step with business priorities.” Laura Robinson, Principal, Robinson Insight Chair, Security for Business Innovation Council (SBIC) Program Director, Executive Security Action Forum (ESAF) “The mandate of the information security function is being completely rewritten. Unfortunately most heads of security haven’t picked up on the change, impeding their companies’ agility and ability to innovate. This book makes the case for why security needs to change, and shows how to get started. It will be regarded as marking the turning point in information security for years to come.” Dr. Jeremy Bergsman, Practice Manager, CEB “The world we are responsible to protect is changing dramatically and at an accelerating pace. Technology is pervasive in virtually every aspect of our lives. Clouds, virtualization and mobile are redefining computing – and they are just the beginning of what is to come. Your security perimeter is defined by wherever your information and people happen to be. We are attacked by professional adversaries who are better funded than we will ever be. We in the information security profession must change as dramatically as the environment we protect. We need new skills and new strategies to do our jobs effectively. We literally need to change the way we think. Written by one of the best in the business, *Managing Risk and Information Security* challenges traditional security theory with clear examples of the need for change. It also provides expert advice on how to dramatically increase the success of your security strategy and methods – from dealing with the misperception of risk to how to become a Z-shaped CISO. *Managing Risk and Information Security* is the ultimate treatise on how to deliver effective security to the world we live in for the next 10 years. It is absolute must reading for anyone in our profession – and should be on the desk of every CISO in the world.” Dave Cullinane, CISSP CEO Security Starfish, LLC “In this overview, Malcolm Harkins delivers an insightful survey of the trends, threats, and tactics shaping information risk and security. From regulatory compliance to psychology to the changing threat context, this work provides a compelling introduction to an important topic and trains helpful attention on the effects of changing technology and management practices.” Dr. Mariano-Florentino Cuéllar Professor, Stanford Law School Co-Director, Stanford Center for International Security and Cooperation (CISAC), Stanford University “Malcolm Harkins gets it. In his new book Malcolm outlines the major forces changing the information security risk landscape from a big picture perspective, and then goes on to offer effective methods of managing that risk from a practitioner's viewpoint. The combination makes this book unique and a must read for anyone interested in IT risk.” Dennis Devlin AVP, Information Security and Compliance, The George Washington University “*Managing Risk and Information Security* is the first-to-read, must-read book on information security for C-Suite executives. It is accessible, understandable and actionable. No sky-is-falling scare tactics, no techno-babble – just straight talk about a critically important subject. There is no better primer on the economics, ergonomics and psycho-behaviourals of security than this.” Thornton May, Futurist, Executive Director & Dean, IT Leadership Academy “*Managing Risk and Information Security* is a wake-up call for information security executives and a ray of light for business leaders. It equips organizations with the knowledge required to transform their security programs from a “culture of no” to one focused on agility, value and competitiveness. Unlike other publications, Malcolm provides clear and immediately applicable solutions to optimally balance the frequently opposing needs of risk reduction and business growth. This book should be required reading for anyone currently serving in, or seeking to achieve, the role of Chief Information Security Officer.” Jamil Farshchi, Senior Business Leader of Strategic Planning and Initiatives, VISA “For too many years, business and security – either real or imagined – were at odds. In *Managing Risk and Information Security: Protect to Enable*, you get what you expect – real life practical ways to break logjams, have security actually enable business, and marries security architecture and business architecture. Why this book? It's written by a practitioner, and not just any practitioner, one of the leading minds in Security today.” John Stewart, Chief Security Officer, Cisco “This book is an invaluable guide to help security professionals address risk in new ways in this alarmingly fast changing environment. Packed with examples which makes it a pleasure to read, the book captures practical ways a forward thinking CISO can turn information security into a competitive advantage for their business. This book provides a new framework for managing risk in an entertaining and thought provoking way. This will change the way security professionals work with their business leaders, and help get products to market faster. The 6 irrefutable laws of information security should be on a stone plaque on the desk of every security professional.” Steven Proctor, VP, Audit & Risk Management, Flextronics

This is a monumental reference for the theory and practice of computer security. Comprehensive in scope, this text covers applied and practical elements, theory, and the reasons for the design of applications and security techniques. It covers both the management and the engineering issues of computer security. It provides excellent examples of ideas and mechanisms that demonstrate how disparate techniques and principles are combined in widely-used systems. This book is acclaimed for its scope, clear and lucid writing, and its combination of formal and theoretical aspects with real systems, technologies, techniques, and policies.

Discover the latest trends, developments and technology in information security today with Whitman/Mattord's market-leading *PRINCIPLES OF INFORMATION SECURITY*, 7th Edition. Designed specifically to meet the needs of those studying information systems, this edition's balanced focus addresses all aspects of information security, rather than simply offering a technical control perspective. This overview explores important terms and examines what is needed to manage an effective information security program. A new module details incident response and detection strategies. In addition, current, relevant updates highlight the latest practices in security operations as well as legislative issues, information management toolsets and digital forensics. Coverage of the most recent policies and guidelines that correspond to federal and international standards further prepare you for success both in information systems and as a business decision-maker. Important Notice: Media content referenced within the product description or the product text may

not be available in the ebook version.

MANAGEMENT OF INFORMATION SECURITY, Sixth Edition prepares you to become an information security management practitioner able to secure systems and networks in a world where continuously emerging threats, ever-present attacks and the success of criminals illustrate the weaknesses in current information technologies. You'll develop both the information security skills and practical experience that organizations are looking for as they strive to ensure more secure computing environments. The text focuses on key executive and managerial aspects of information security. It also integrates coverage of CISSP and CISM throughout to effectively prepare you for certification. Reflecting the most recent developments in the field, it includes the latest information on NIST, ISO and security governance as well as emerging concerns like Ransomware, Cloud Computing and the Internet of Things.

The fourth edition of Principles of Information Security explores the field of information security and assurance with updated content including new innovations in technology and methodologies. Students will revel in the comprehensive coverage that includes a historical overview of information security, discussions on risk management and security technology, current certification information, and more. The text builds on internationally-recognized standards and bodies of knowledge to provide the knowledge and skills students need for their future roles as business decision-makers. Information security in the modern organization is a management issue which technology alone cannot answer; it is a problem that has important economic consequences for which management will be held accountable. Students can feel confident that they are using a standards-based, content-driven resource to prepare for their work in the field. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

GUIDE TO NETWORK SECURITY is a wide-ranging new text that provides a detailed review of the network security field, including essential terminology, the history of the discipline, and practical techniques to manage implementation of network security solutions. It begins with an overview of information, network, and web security, emphasizing the role of data communications and encryption. The authors then explore network perimeter defense technologies and methods, including access controls, firewalls, VPNs, and intrusion detection systems, as well as applied cryptography in public key infrastructure, wireless security, and web commerce. The final section covers additional topics relevant for information security practitioners, such as assessing network security, professional careers in the field, and contingency planning. Perfect for both aspiring and active IT professionals, GUIDE TO NETWORK SECURITY is an ideal resource for students who want to help organizations protect critical information assets and secure their systems and networks, both by recognizing current threats and vulnerabilities, and by designing and developing the secure systems of the future. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Presents theories and models associated with information privacy and safeguard practices to help anchor and guide the development of technologies, standards, and best practices. Provides recent, comprehensive coverage of all issues related to information security and ethics, as well as the opportunities, future challenges, and emerging trends related to this subject.

This book provides state-of-the-art coverage of the principles, techniques, and management of issues in cyber security, including threat attacks, privacy, signature and encryption schemes. One of the most important topics addressed concerns lightweight solutions for public key encryption in resource-constrained environments; the book highlights the latest developments in this area. Authentication is another central issue in cyber security. In this book, we address this aspect and sub-aspects ranging from cryptographic approaches to practical design issues, such as CAPTCHA. Privacy is another main topic that is discussed in detail, from techniques for enhancing privacy to pseudonymous schemes. Addressing key issues in the emerging field of cyber security, this book effectively bridges the gap between computer security and threat attacks, and showcases promising applications involving cryptography and security.

Readers discover a managerially-focused overview of information security with a thorough treatment of how to most effectively administer it with MANAGEMENT OF INFORMATION SECURITY, 5E. Information throughout helps readers become information security management practitioners able to secure systems and networks in a world where continuously emerging threats, ever-present attacks, and the success of criminals illustrate the weaknesses in current information technologies. Current and future professional managers complete this book with the exceptional blend of skills and experiences to develop and manage the more secure computing environments that today's organizations need. This edition offers a tightened focus on key executive and managerial aspects of information security while still emphasizing the important foundational material to reinforce key concepts. Updated content reflects the most recent developments in the field, including NIST, ISO, and security governance. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

High-level overview of the information security field. Covers key concepts like confidentiality, integrity, and availability, then dives into practical applications of these ideas in the areas of operational, physical, network, application, and operating system security. In this high-level survey of the information security field, best-selling author Jason Andress covers the basics of a wide variety of topics, from authentication and authorization to maintaining confidentiality and performing penetration testing. Using real-world security breaches as examples, Foundations of Information Security explores common applications of these concepts, such as operations security, network design, hardening and patching operating systems, securing mobile devices, as well as tools for assessing the security of hosts and applications. You'll also learn the basics of topics like: • Multifactor authentication and how biometrics and hardware tokens can be used to harden the authentication process • The principles behind modern cryptography, including symmetric and asymmetric algorithms, hashes, and certificates • The laws and regulations that protect systems and data • Anti-malware tools, firewalls, and intrusion detection systems • Vulnerabilities such as buffer overflows and race conditions A valuable resource for beginning security professionals, network systems administrators, or anyone new to the field, Foundations of Information Security is a great place to start your journey into the dynamic and rewarding field of information security.

With the greatly increased use of electronic media for processing and storing data, data security became an important practical issue. This is especially true for the extensively shared and distributed systems which are more and more being accepted in commercial operations. Essentially, the problem is that of protecting data, including all the implications which this has to the

end user as well as the systems or database designer. However, usually the term data security refers to protection by technical, i.e., computer science specific, means; if one wants to include issues such as physical security, how to select the group of people who should have authority to perform certain operations, etc., the term computer security is more appropriate. The object of this book is to provide technical solutions to (facets of) the problem of achieving data security. The reader who hopes to find clever recipes which allow circumventing protection mechanisms will, however, be sadly disappointed. In fact, we deliberately kept the presentation of the material at a fairly general level. While the short term benefit of such an approach may be somewhat smaller, we feel that without a thorough understanding of the fundamental issues and problems in data security there will never be secure systems. True, people probably always considered certain security aspects when designing a system. However, an integrated approach is absolutely imperative.

Cyber Security – Essential principles to secure your organisation takes you through the fundamentals of cyber security, the principles that underpin it, vulnerabilities and threats, and how to defend against attacks.

While security is generally perceived to be a complicated and expensive process, Zen and the Art of Information Security makes security understandable to the average person in a completely non-technical, concise, and entertaining format. Through the use of analogies and just plain common sense, readers see through the hype and become comfortable taking very simple actions to secure themselves. Even highly technical people have misperceptions about security concerns and will also benefit from Ira Winkler's experiences making security understandable to the business world. Mr. Winkler is one of the most popular and highly rated speakers in the field of security, and lectures to tens of thousands of people a year. Zen and the Art of Information Security is based on one of his most well received international presentations. Written by an internationally renowned author of Spies Among Us who travels the world making security presentations to tens of thousands of people a year This short and concise book is specifically for the business, consumer, and technical user short on time but looking for the latest information along with reader friendly analogies Describes the REAL security threats that you have to worry about, and more importantly, what to do about them

Computers at Risk presents a comprehensive agenda for developing nationwide policies and practices for computer security. Specific recommendations are provided for industry and for government agencies engaged in computer security activities. The volume also outlines problems and opportunities in computer security research, recommends ways to improve the research infrastructure, and suggests topics for investigators. The book explores the diversity of the field, the need to engineer countermeasures based on speculation of what experts think computer attackers may do next, why the technology community has failed to respond to the need for enhanced security systems, how innovators could be encouraged to bring more options to the marketplace, and balancing the importance of security against the right of privacy.

In today's technology-driven environment, there is an ever-increasing demand for information delivery. A compromise has to be struck between security and availability. This book is a pragmatic guide to information assurance for both business professionals and technical experts. The second edition includes the security of cloud-based resources and the contents have been revised to reflect the changes to the BCS Certification in Information Security Management Principles which the book supports.

Specifically oriented to the needs of information systems students, PRINCIPLES OF INFORMATION SECURITY, 5e delivers the latest technology and developments from the field. Taking a managerial approach, this bestseller teaches all the aspects of information security-not just the technical control perspective. It provides a broad review of the entire field of information security, background on many related elements, and enough detail to facilitate understanding of the topic. It covers the terminology of the field, the history of the discipline, and an overview of how to manage an information security program. Current and relevant, the fifth edition includes the latest practices, fresh examples, updated material on technical security controls, emerging legislative issues, new coverage of digital forensics, and hands-on application of ethical issues in IS security. It is the ultimate resource for future business decision-makers. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

In recent years, virtual meeting technology has become a part of the everyday lives of more and more people, often with the help of global online social networks (OSNs). These help users to build both social and professional links on a worldwide scale. The sharing of information and opinions are important features of OSNs. Users can describe recent activities and interests, share photos, videos, applications, and much more. The use of OSNs has increased at a rapid rate. Google+, Facebook, Twitter, LinkedIn, Sina Weibo, VKontakte, and Mixi are all OSNs that have become the preferred way of communication for a vast number of daily active users. Users spend substantial amounts of time updating their information, communicating with other users, and browsing one another's accounts. OSNs obliterate geographical distance and can breach economic barrier. This popularity has made OSNs a fascinating test bed for cyberattacks comprising Cross-Site Scripting, SQL injection, DDoS, phishing, spamming, fake profile, spammer, etc. OSNs security: Principles, Algorithm, Applications, and Perspectives describe various attacks, classifying them, explaining their consequences, and offering. It also highlights some key contributions related to the current defensive approaches. Moreover, it shows how machine-learning and deep-learning methods can mitigate attacks on OSNs. Different technological solutions that have been proposed are also discussed. The topics, methodologies, and outcomes included in this book will help readers learn the importance of incentives in any technical solution to handle attacks against OSNs. The best practices and guidelines will show how to implement various attack-mitigation methodologies. Safeguarding the confidentiality, authenticity, integrity, and non-repudiation of information is paramount to organizational stability and success. This new book provides an understanding of information security, potential threats to our information, and effective countermeasures to proactively combat those threats. A comprehensive review of

cryptographic techniques is presented and explained in simple mathematical terms. The text covers symmetrical and asymmetrical encryption, digital signatures, Kerberos, creation/deployment of strong keys and passwords, Virtual Private Networks, SET, SSL, SSH, IPSec, and authentication techniques. A detailed examination of Tiny Encryption Algorithm (TEA) exposes readers to the inner workings of encryption. CD-ROM experiments help solidify the learning experience. Emphasis throughout is on the application of the cryptographic methods and support structures needed to effectively apply the principles to create a secure business setting.

As part of the Syngress Basics series, The Basics of Information Security provides you with fundamental knowledge of information security in both theoretical and practical aspects. Author Jason Andress gives you the basic knowledge needed to understand the key concepts of confidentiality, integrity, and availability, and then dives into practical applications of these ideas in the areas of operational, physical, network, application, and operating system security. The Basics of Information Security gives you clear-non-technical explanations of how infosec works and how to apply these principles whether you're in the IT field or want to understand how it affects your career and business. The new Second Edition has been updated for the latest trends and threats, including new material on many infosec subjects. Learn about information security without wading through a huge textbook Covers both theoretical and practical aspects of information security Provides a broad view of the information security field in a concise manner All-new Second Edition updated for the latest information security trends and threats, including material on incident response, social engineering, security awareness, risk management, and legal/regulatory issues

MANAGEMENT OF INFORMATION SECURITY, Fourth Edition gives readers an overview of information security and assurance using both domestic and international standards, all from a management perspective. Beginning with the foundational and technical components of information security, this edition then focuses on access control models, information security governance, and information security program assessment and metrics. The Fourth Edition is revised and updated to reflect changes in the field, including the ISO 27000 series, so as to prepare readers to succeed in the workplace. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

[Copyright: 44e593d039443333d85e7ac532bbcc08](#)