Bro An Open Source Network Intrusion Detection System

Discusses all types of corporate risks and practical means of defending against them. Security is currently identified as a critical area of Information Technology management by a majority of government, commercial, and industrial organizations. Offers an effective risk management program, which is the most critical function of an information security program.

The present book includes extended and revised versions of a set of selected papers presented at the 17th International Joint Conference on e-Business and Telecommunications, ICETE 2020, held as an online web-based event (due to the COVID-19 pandemic) in July 2020.ICETE 2020 is a joint conference aimed at bringing together researchers, engineers and practitioners interested in information and communication technologies, including data communication networking, e-business, optical communication systems, security and cryptography, signal processing and multimedia applications, and wireless networks and mobile systems.The 10 full papers included in the volume were carefully selected from the 30 submissions accepted to participate in the conference.

This book gathers the proceedings of the International Conference on Advanced Information Technology, Services and Systems (AIT2S-18), which was held in Mohammedia, Morocco on October 17–18, 2018. Presenting the latest research in the fields of Modern Information Engineering Concepts and Communication Systems, the book will also be of interest to those working in emerging fields such as Advances in Networking and Sensor Networks, Advances in Software Engineering, Multimedia Systems, E-learning, Big Data, Intelligent Information Systems and Advances in Natural Language Processing.

Intensively hands-on training for real-world network forensics Network Forensics provides a uniquely practical guide for IT and law enforcement professionals seeking a deeper understanding of cybersecurity. This book is hands-on all the way—by dissecting packets, you gain fundamental knowledge that only comes from experience. Real packet captures and log files demonstrate network traffic investigation, and the learn-by-doing approach relates the essential skills that traditional forensics investigators may not have. From network packet analysis to host artifacts to log analysis and beyond, this book emphasizes the critical techniques that bring evidence to light. Network forensics is a growing field, and is becoming increasingly central to law enforcement as cybercrime becomes more and more sophisticated. This book provides an unprecedented level of hands-on training to give investigators the skills they need. Investigate packet captures to examine network communications Locate host-based artifacts and analyze network logs Understand intrusion detection systems—and let them do the legwork Have the right architecture and systems in place ahead of an incident Network data is always changing, and is never saved in one place; an investigator must understand how to examine data over time, which involves specialized skills that go above and beyond memory, mobile, or data forensics. Whether you're preparing for a security certification or just seeking deeper training for a law enforcement or IT role, you can only learn so much from concept; to thoroughly understand something, you need to do it. Network Forensics provides intensive hands-on practice with direct translation to real-world application.

Big data is presenting challenges to cybersecurity. For an example, the Internet of Things (IoT) will reportedly soon generate a staggering 400 zettabytes (ZB) of data a year. Self-driving cars are predicted to churn out 4000 GB of data per hour of driving. Big data analytics, as an emerging analytical technology, offers the capability to collect, store, process, and visualize these vast amounts of data. Big Data Analytics in Cybersecurity examines security challenges surrounding big data and provides actionable insights that can be used to improve the current

practices of network operators and administrators. Applying big data analytics in cybersecurity is critical. By exploiting data from the networks and computers, analysts can discover useful network information from data. Decision makers can make more informative decisions by using this analysis, including what actions need to be performed, and improvement recommendations to policies, guidelines, procedures, tools, and other aspects of the network processes. Bringing together experts from academia, government laboratories, and industry, the book provides insight to both new and more experienced security professionals, as well as data analytics professionals who have varying levels of cybersecurity expertise. It covers a wide range of topics in cybersecurity, which include: Network forensics Threat analysis Vulnerability assessment Visualization Cyber training. In addition, emerging security domains such as the IoT, cloud computing, fog computing, mobile computing, and cyber-social networks are examined. The book first focuses on how big data analytics can be used in different aspects of cybersecurity including network forensics, root-cause analysis, and security training. Next it discusses big data challenges and solutions in such emerging cybersecurity domains as fog computing, IoT, and mobile app security. The book concludes by presenting the tools and datasets for future cybersecurity research.

This book constitutes the refereed proceedings of the 7th International Symposium on Security in Computing and Communications, SSCC 2019, held in Trivandrum, India, in December 2019. The 22 revised full papers and 7 revised short papers presented were carefully reviewed and selected from 61 submissions. The papers cover wide research fields including cryptography, database and storage security, human and societal aspects of security and privacy.

If a network is not secure, how valuable is it? Introduction to Computer Networks and Cybersecurity takes an integrated approach to networking and cybersecurity, highlighting the interconnections so that you quickly understand the complex design issues in modern networks. This full-color book uses a wealth of examples and illustrations to effective

Today, society is faced with numerous internet schemes, fraudulent scams, and means of identity theft that threaten our safety and our peace of mind. Computer Security: Protecting Digital Resources provides a broad approach to computer-related crime, electronic commerce, corporate networking, and Internet security, topics that have become increasingly important as more and more threats are made on our internet environment. This book is oriented toward the average computer user, business professional, government worker, and those within the education community, with the expectation that readers can learn to use the network with some degree of safety and security. The author places emphasis on the numerous vulnerabilities and threats that are inherent in the Internet environment. Efforts are made to present techniques and suggestions to avoid identity theft and fraud. Readers will gain a clear insight into the many security issues facing the e-commerce, networking, web, and internet environments, as well as what can be done to keep personal and business information secure.

The papers in this volume comprise the refereed proceedings of the conference 'Artificial Intelligence in Theory and Practice' (IFIP AI 2006), which formed part of the 19th World Computer Congress of IFIP, the International Federation for Information Processing (WCC- 2006), in Santiago, Chile in August 2006. The conference is organised by the IFIP Technical Committee on Artificial Intelligence (Technical Committee 12) and its Working Group 12.5 (Artificial Intelligence Applications). All papers were reviewed by at least two members of our Programme Committee. The best papers were selected for the conference and are included in this volume. The international nature of IFIP is amply reflected in the large number of countries represented here. The conference featured invited talks by Rose Dieng, John Atkinson, John Debenham and myself. IFIP AI 2006 also included the Second IFIP

Symposium on Professional Practice in Artificial Intelligence, organised by Professor John Debenham, which ran alongside the refereed papers. I should like to thank the conference chair. Professor Debenham for all his efforts in organising the Symposium and the members of our programme committee for reviewing an unexpectedly large number of papers to a very tight deadline. This is the latest in a series of conferences organised by IFIP Technical Committee 12 dedicated to the techniques of Artificial Intelligence and their real-world applications. The wide range and importance of these applications is clearly indicated by the papers in this volume. Further information about TCI 2 can be found on our website http://www.ifiptcl2.org.

Die 15. GI/ITG-Fachtagung "Kommunikation in Verteilten Systemen (KiVS 2007)" befasst sich mit einer großen Vielfalt innovativer und zukunftsorientierter Fragen: Overlay- und Peer to Peer-Netze, Sensornetze, mobile Ad Hoc-Netze, Web Services. Die KiVS 2007 dient der Standortbestimmung aktueller Entwicklungen, der Präsentation laufender Forschungsarbeiten und der Diskussion zukunftsträchtiger Ansätze für die Kommunikation in verteilten Systemen.

The Critical Infrastructure Protection Survey recently released by Symantec found that 53% of interviewed IT security experts from international companies experienced at least ten cyber attacks in the last five years, and financial institutions were often subject to some of the most sophisticated and large-scale cyber attacks and frauds. The book by Baldoni and Chockler analyzes the structure of software infrastructures found in the financial domain, their vulnerabilities to cyber attacks and the existing protection mechanisms. It then shows the advantages of sharing information among financial players in order to detect and quickly react to cyber attacks. Various aspects associated with information sharing are investigated from the organizational, cultural and legislative perspectives. The presentation is organized in two parts: Part I explores general issues associated with information sharing in the financial sector and is intended to set the stage for the vertical IT middleware solution proposed in Part II. Nonetheless, it is self-contained and details a survey of various types of critical infrastructure along with their vulnerability analysis, which has not yet appeared in a textbook-style publication elsewhere. Part II then presents the CoMiFin middleware for collaborative protection of the financial infrastructure. The material is presented in an accessible style and does not require specific prerequisites. It appeals to both researchers in the areas of security, distributed systems, and event processing working on new protection mechanisms, and practitioners looking for a state-of-the-art middleware technology to enhance the security of their critical infrastructures in e.g. banking, military, and other highly sensitive applications. The latter group will especially appreciate the concrete usage scenarios included.

This book provides a concise yet comprehensive overview of computer and Internet security, suitable for a one-term introductory course for junior/senior undergrad or first-year graduate students. It is also suitable for self-study by anyone seeking a solid footing in security – including software developers and computing professionals, technical managers and government staff. An overriding focus is on brevity, without sacrificing breadth of core topics or technical detail within them. The aim is to enable a broad understanding in roughly 350 pages. Further prioritization is supported by designating as optional selected content within this. Fundamental academic concepts are reinforced by specifics and examples, and related to applied problems and real-world

incidents. The first chapter provides a gentle overview and 20 design principles for security. The ten chapters that follow provide a framework for understanding computer and Internet security. They regularly refer back to the principles, with supporting examples. These principles are the conceptual counterparts of security-related error patterns that have been recurring in software and system designs for over 50 years. The book is “elementary” in that it assumes no background in security, but unlike “soft” high-level texts it does not avoid low-level details, instead it selectively dives into fine points for exemplary topics to concretely illustrate concepts and principles. The book is rigorous in the sense of being technically sound, but avoids both mathematical proofs and lengthy source-code examples that typically make books inaccessible to general audiences. Knowledge of elementary operating system and networking concepts is helpful, but review sections summarize the essential background. For graduate students, inline exercises and supplemental references provided in per-chapter endnotes provide a bridge to further topics and a springboard to the research literature; for those in industry and government, pointers are provided to helpful surveys and relevant standards, e.g., documents from the Internet Engineering Task Force (IETF), and the U.S. National Institute of Standards and Technology.
Network Intrusion Detection and Prevention: Concepts and Techniques provides detailed and concise information on different types of attacks, theoretical foundation of attack detection approaches, implementation, data collection, evaluation, and intrusion response. Additionally, it provides an overview of some of the commercially/publicly available intrusion detection and response systems. On the topic of intrusion detection system it is impossible to include everything there is to say on all subjects. However, we have tried to cover the most important and common ones. Network Intrusion Detection and Prevention: Concepts and Techniques is designed for researchers and practitioners in industry. This book is suitable for advanced-level students in computer science as a reference book as well.
This book constitutes the proceedings of the 9th International Conference on Network and System Security, NSS 2015, held in New York City, NY, USA, in November 2015. The 23 full papers and 18 short papers presented were carefully reviewed and selected from 110 submissions. The papers are organized in topical sections on wireless security and privacy; smartphone security; systems security; applications security; security management; applied cryptography; cryptosystems; cryptographic mechanisms; security mechanisms; mobile and cloud security; applications and network security.
The State of the Art in Intrusion Prevention and Detection analyzes the latest trends and issues surrounding intrusion detection systems in computer networks, especially in communications networks. Its broad scope of coverage includes wired, wireless, and mobile networks; next-generation converged networks; and intrusion in social networks. Presenting cutting-edge research, the book presents novel schemes for intrusion detection and prevention. It discusses tracing back mobile attackers, secure routing with intrusion prevention, anomaly detection, and AI-based techniques. It also includes information on physical intrusion in wired and wireless networks and agent-based intrusion surveillance, detection, and prevention. The book contains 19 chapters written by experts from 12 different countries that provide a truly global perspective. The text begins by examining traffic analysis and management for intrusion detection systems. It explores honeypots, honeynets, network traffic analysis, and the basics of outlier

detection. It talks about different kinds of IDSs for different infrastructures and considers new and emerging technologies such as smart grids, cyber physical systems, cloud computing, and hardware techniques for high performance intrusion detection. The book covers artificial intelligence-related intrusion detection techniques and explores intrusion tackling mechanisms for various wireless systems and networks, including wireless sensor networks, WiFi, and wireless automation systems. Containing some chapters written in a tutorial style, this book is an ideal reference for graduate students, professionals, and researchers working in the field of computer and network security.

This book discusses data communication and computer networking, communication technologies and the applications of IoT (Internet of Things), big data, cloud computing and healthcare informatics. It explores, examines and critiques intelligent data communications and presents inventive methodologies in communication technologies and IoT. Aimed at researchers and academicians who need to understand the importance of data communication and advanced technologies in IoT, it offers different perspectives to help readers increase their knowledge and motivates them to conduct research in the area, highlighting various innovative ideas for future research.

Constitutes the refereed proceedings of the 30th International Conference on Computer Safety, Reliability, and Security, SAFECOMP 2011, held in Naples, Italy, in September 2011. This book includes the papers that are organized in topical sections on RAM evaluation, complex systems dependability, formal verification, and risk and hazard analysis.

This timely text/reference presents a detailed introduction to the essential aspects of computer network forensics. The book considers not only how to uncover information hidden in email messages, web pages and web servers, but also what this reveals about the functioning of the Internet and its core protocols. This, in turn, enables the identification of shortcomings and highlights where improvements can be made for a more secure network. Topics and features: provides learning objectives in every chapter, and review questions throughout the book to test understanding; introduces the basic concepts of network process models, network forensics frameworks and network forensics tools; discusses various techniques for the acquisition of packets in a network forensics system, network forensics analysis, and attribution in network forensics; examines a range of advanced topics, including botnet, smartphone, and cloud forensics; reviews a number of freely available tools for performing forensic activities.

This book covers diverse aspects of advanced computer and communication engineering, focusing specifically on industrial and manufacturing theory and applications of electronics, communications, computing and information technology. Experts in research, industry, and academia present the latest developments in technology, describe applications involving cutting-edge communication and computer systems, and explore likely future trends. In addition, a wealth of new algorithms that assist in solving computer and communication engineering problems are presented. The book is based on presentations given at ICOCOE 2015, the 2nd International Conference on Communication and Computer Engineering. It will appeal to a wide range of professionals in the field, including telecommunication engineers, computer engineers and scientists, researchers, academics and students.

This book constitutes the proceedings of the 6th International Conference on Internet of Things (IoT) Technologies for HealthCare, HealthyIoT 2019, held in Braga, Portugal, in December 2019. The IoT as a set of existing and emerging technologies, notions and services can provide many solutions to delivery of electronic healthcare, patient care, and medical data management. The 10 revised full papers

presented were carefully reviewed and selected from 26 submissions. The papers cover topics such as healthcare information systems, consumer health, health informatics, engineering, telecommunications, mathematics and statistics, life and medical sciences, and cloud computing.

This book presents various areas related to cybersecurity. Different techniques and tools used by cyberattackers to exploit a system are thoroughly discussed and analyzed in their respective chapters. The content of the book provides an intuition of various issues and challenges of cybersecurity that can help readers to understand and have awareness about it. It starts with a very basic introduction of security, its varied domains, and its implications in any working organization; moreover, it will talk about the risk factor of various attacks and threats. The concept of privacy and anonymity has been taken into consideration in consecutive chapters. Various topics including, The Onion Router (TOR) and other anonymous services, are precisely discussed with a practical approach. Further, chapters to learn the importance of preventive measures such as intrusion detection system (IDS) are also covered. Due to the existence of severe cyberattacks, digital forensics is a must for investigating the crime and to take precautionary measures for the future occurrence of such attacks. A detailed description of cyberinvestigation is covered in a chapter to get readers acquainted with the need and demands. This chapter deals with evidence collection from the victim's device and the system that has importance in the context of an investigation. Content covered in all chapters is foremost and reported in the current trends in several journals and cybertalks. The proposed book is helpful for any reader who is using a computer or any such electronic gadget in their daily routine. The content of the book is prepared to work as a resource to any undergraduate and graduate-level student to get aware about the concept of cybersecurity, various cyberattacks, and threats in the security. In addition to that, it aimed at assisting researchers and developers to build a strong foundation for security provisioning in any newer technology which they are developing.

For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce.

This book constitutes the refereed proceedings of the 18th International Symposium on Research in Attacks, Intrusions and Defenses, RAID 2015, held in Kyoto, Japan, in November 2015. The 28 full papers were carefully reviewed and selected from 119 submissions. This symposium brings together leading researchers and practitioners from academia, government, and industry to discuss novel security problems, solutions, and technologies related to intrusion detection, attacks, and defenses.

Cyber-Security Threats, Actors, and Dynamic Mitigation provides both a technical and state-of-the-art perspective as well as a systematic overview of the recent advances in different facets of cyber-security. It covers the methodologies for modeling attack strategies used by threat actors targeting devices, systems, and networks such as smart homes, critical infrastructures, and industrial IoT. With a comprehensive review of the threat landscape, the book explores both common and sophisticated threats to systems and networks. Tools and methodologies are presented for precise modeling of attack strategies, which can be used both proactively in risk management and reactively in intrusion prevention and response systems. Several contemporary techniques are offered ranging from reconnaissance and penetration testing to malware detection, analysis, and mitigation. Advanced machine learning-based approaches are also included in the area of anomaly-based detection, that are capable of detecting attacks relying on zero-day vulnerabilities and exploits. Academics, researchers, and professionals in

cyber-security who want an in-depth look at the contemporary aspects of the field will find this book of interest. Those wanting a unique reference for various cyber-security threats and how they are detected, analyzed, and mitigated will reach for this book often.

This book gathers the proceedings of the Sixth International Conference on Computational Science and Technology 2019 (ICCST2019), held in Kota Kinabalu, Malaysia, on 29–30 August 2019. The respective contributions offer practitioners and researchers a range of new computational techniques and solutions, identify emerging issues, and outline future research directions, while also showing them how to apply the latest large-scale, high-performance computational methods.

Big Data Analytics in CybersecurityCRC Press

Cybersecurity for Beginners KEY FEATURES ? In-depth coverage of cybersecurity concepts, vulnerabilities and detection mechanism. ? Cutting-edge coverage on frameworks, Intrusion detection methodologies and how to design cybersecurity infrastructure. ? Access to new tools, methodologies, frameworks and countermeasures developed for cybersecurity. DESCRIPTION Cybersecurity Fundamentals starts from the basics of data and information, includes detailed concepts of Information Security and Network Security, and shows the development of 'Cybersecurity' as an international problem. This book talks about how people started to explore the capabilities of Internet technologies to conduct crimes globally. It covers the framework for analyzing cyber costs that enables us to have an idea about the financial damages. It also covers various forms of cybercrime which people face in their day-to-day lives and feel cheated either financially or blackmailed emotionally. The book also demonstrates Intrusion Detection Systems and its various types and characteristics for the quick detection of intrusions in our digital infrastructure. This book elaborates on various traceback schemes and their classification as per the utility. Criminals use stepping stones to mislead tracebacking and to evade their detection. This book covers stepping-stones detection algorithms with active and passive monitoring. It also covers various shortfalls in the Internet structure and the possible DDoS flooding attacks that take place nowadays. WHAT YOU WILL LEARN ? Get to know Cybersecurity in Depth along with Information Security and Network Security. ? Build Intrusion Detection Systems from scratch for your enterprise protection. ? Explore Stepping Stone Detection Algorithms and put into real implementation. ? Learn to identify and monitor Flooding-based DDoS Attacks. WHO THIS BOOK IS FOR This book is useful for students pursuing B.Tech.(CS)/M.Tech.(CS),B.Tech.(IT)/M.Tech.(IT), B.Sc (CS)/M.Sc (CS), B.Sc (IT)/M.Sc (IT), and B.C.A/M.C.A. The content of this book is important for novices who are interested to pursue their careers in cybersecurity. Anyone who is curious about Internet security and cybercrime can read this book too to enhance their knowledge. TABLE OF CONTENTS 1. Introduction to Cybersecurity 2. Cybersecurity Landscape and its Challenges 3. Information Security and Intrusion Detection System 4. Cybercrime Source

Identification Techniques 5. Stepping-stone Detection and Tracing System 6. Infrastructural Vulnerabilities and DDoS Flooding Attacks

This book constitutes the proceedings of the 17th International Symposium on Research in Attacks, Intrusions and Defenses, RAID 2014, held in Gothenburg, Sweden, in September 2014. The 22 full papers were carefully reviewed and selected from 113 submissions, and are presented together with 10 poster abstracts. The papers address all current topics in computer security, including network security, authentication, malware, intrusion detection, browser security, web application security, wireless security, vulnerability analysis.

This volume of Advances in Intelligent and Soft Computing contains accepted papers presented at SOCO 2014, CISIS 2014 and ICEUTE 2014, all conferences held in the beautiful and historic city of Bilbao (Spain), in June 2014. Soft computing represents a collection or set of computational techniques in machine learning, computer science and some engineering disciplines, which investigate, simulate, and analyze very complex issues and phenomena. After a through peer-review process, the 9th SOCO 2014 International Program Committee selected 31 papers which are published in these conference proceedings. In this relevant edition a special emphasis was put on the organization of special sessions. One special session was organized related to relevant topics as: Soft Computing Methods in Manufacturing and Management Systems. The aim of the 7th CISIS 2014 conference is to offer a meeting opportunity for academic and industry-related researchers belonging to the various, vast communities of Computational Intelligence, Information Security, and Data Mining. The need for intelligent, flexible behaviour by large, complex systems, especially in mission-critical domains, is intended to be the catalyst and the aggregation stimulus for the overall event. After a through peer-review process, the CISIS 2014 International Program Committee selected 23 papers and the 5th ICEUTE 2014 International Program Committee selected 2 papers which are published in these conference proceedings as well.

Strategy, Leadership and AI in the Cyber Ecosystem investigates the restructuring of the way cybersecurity and business leaders engage with the emerging digital revolution towards the development of strategic management, with the aid of AI, and in the context of growing cyber-physical interactions (human/machine co-working relationships). The book explores all aspects of strategic leadership within a digital context. It investigates the interactions from both the firm/organization strategy perspective, including cross-functional actors/stakeholders who are operating within the organization and the various characteristics of operating in a cyber-secure ecosystem. As consumption and reliance by business on the use of vast amounts of data in operations increase, demand for more data governance to minimize the issues of bias, trust, privacy and security may be necessary. The role of management is changing dramatically, with the challenges of Industry 4.0 and the digital revolution. With this intelligence explosion, the influence of artificial intelligence technology and the key

themes of machine learning, big data, and digital twin are evolving and creating the need for cyber-physical management professionals. Discusses the foundations of digital societies in information governance and decision-making Explores the role of digital business strategies to deal with big data management, governance and digital footprints Considers advances and challenges in ethical management with data privacy and transparency Investigates the cyber-physical project management professional [Digital Twin] and the role of Holographic technology in corporate decision-making

This book presents the proceedings of the International Conference on Computing Networks, Big Data and IoT [ICCBI 2019], held on December 19–20, 2019 at the Vaigai College of Engineering, Madurai, India. Recent years have witnessed the intertwining development of the Internet of Things and big data, which are increasingly deployed in computer network architecture. As society becomes smarter, it is critical to replace the traditional technologies with modern ICT architectures. In this context, the Internet of Things connects smart objects through the Internet and as a result generates big data. This has led to new computing facilities being developed to derive intelligent decisions in the big data environment. The book covers a variety of topics, including information management, mobile computing and applications, emerging IoT applications, distributed communication networks, cloud computing, and healthcare big data. It also discusses security and privacy issues, network intrusion detection, cryptography, 5G/6G networks, social network analysis, artificial intelligence, human–machine interaction, smart home and smart city applications.

This book constitutes selected papers from the First International Workshop on Deployable Machine Learning for Security Defense, MLHat 2020, held in August 2020. Due to the COVID-19 pandemic the conference was held online. The 8 full papers were thoroughly reviewed and selected from 13 qualified submissions. The papers are organized in the following topical sections: understanding the adversaries; adversarial ML for better security; threats on networks.

Seven Deadliest Network Attacks identifies seven classes of network attacks and discusses how the attack works, including tools to accomplish the attack, the risks of the attack, and how to defend against the attack. This book pinpoints the most dangerous hacks and exploits specific to networks, laying out the anatomy of these attacks including how to make your system more secure. You will discover the best ways to defend against these vicious hacks with step-by-step instruction and learn techniques to make your computer and network impenetrable. The book consists of seven chapters that deal with the following attacks: denial of service; war dialing; penetration testing; protocol tunneling; spanning tree attacks; man-in-the-middle; and password replay. These attacks are not mutually exclusive and were chosen because they help illustrate different aspects of network security. The principles on which they rely are unlikely to vanish any time soon, and they allow for the possibility of gaining something of interest to the attacker, from money to high-value data. This book is intended to provide practical, usable information. However, the world of network security is evolving very

rapidly, and the attack that works today may (hopefully) not work tomorrow. It is more important, then, to understand the principles on which the attacks and exploits are based in order to properly plan either a network attack or a network defense. Seven Deadliest Network Attacks will appeal to information security professionals of all levels, network admins, and recreational hackers. Knowledge is power, find out about the most dominant attacks currently waging war on computers and networks globally Discover the best ways to defend against these vicious attacks; step-by-step instruction shows you how Institute countermeasures, don’t be caught defenseless again, and learn techniques to make your computer and network impenetrable

This book presents refereed proceedings of the First International Conference on Advances in Cyber Security, ACeS 2019, held in Penang, Malaysia, in July-August 2019. The 25 full papers and 1 short paper were carefully reviewed and selected from 87 submissions. The papers are organized in topical sections on internet of things, industry and blockchain, and cryptology; digital forensics and surveillance, botnet and malware, and DDoS and intrusion detection/prevention; ambient cloud and edge computing, wireless and cellular communication.

Digital forensics deals with the acquisition, preservation, examination, analysis and presentation of electronic evidence. Practically every crime now involves some digital evidence; digital forensics provides the techniques and tools to articulate this evidence. This book describes original research results and innovative applications in the emerging discipline of digital forensics. In addition, it highlights some of the major technical and legal issues related to digital evidence and electronic crime investigations.

Network security is the provision made in an underlying computer network or rules made by the administrator to protect the network and its resources from unauthorized access. To make network secure, an Intrusion detection system is one of the efficient system. Bro is an open source Network Intrusion Detection System that monitors network traffic, check for suspicious activities and notifies the system or network administrator. Some Policy Scripts are already built in Bro IDS. In this work, various types of live traffic is captured and analyzed. Some new policy scripts are built to filter out the needed packets from the captured traffic. Also, a Graphical User Interface is designed to eliminate the need of writing of commands at terminal and making it easy for users to create the scripts and run them on captured traffic. A GUI framework is integrated in Bro that analyzes and filters the traced network traffic.

This book constitutes the refereed proceedings of the Third International Conference on Trust and Privacy in Digital Business, TrustBus 2006, held in conjunction with DEXA 2006. The book presents 24 carefully reviewed, revised full papers, organized in topical sections on privacy and identity management, security and risk management, security requirements and development, privacy enhancing technologies and privacy management, access control models, trust

and reputation, security protocols and more.
Surveys the best practices for all aspects of system administration, covering such topics as storage management, email, Web hosting, performance analysis, virtualization, DNS, security, and configuration management.
This book has a collection of articles written by Big Data experts to describe some of the cutting-edge methods and applications from their respective areas of interest, and provides the reader with a detailed overview of the field of Big Data Analytics as it is practiced today. The chapters cover technical aspects of key areas that generate and use Big Data such as management and finance; medicine and healthcare; genome, cytome and microbiome; graphs and networks; Internet of Things; Big Data standards; bench-marking of systems; and others. In addition to different applications, key algorithmic approaches such as graph partitioning, clustering and finite mixture modelling of high-dimensional data are also covered. The varied collection of themes in this volume introduces the reader to the richness of the emerging field of Big Data Analytics.