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Cybercrime and Digital Forensics - Thomas J. Holt 2015-02-11

The emergence of the World Wide Web, smartphones, and Computer-Mediated Communications (CMCs) profoundly affect the way in which people interact online and offline. Individuals who engage in socially unacceptable or outright criminal acts increasingly utilize technology to connect with one another in ways that are not otherwise possible in the real world due to shame, social stigma, or risk of detection. As a consequence, there are now myriad opportunities for wrongdoing and abuse through technology. This book offers a comprehensive and integrative introduction to cybercrime. It is the first to connect the disparate literature on the various types of cybercrime, the

investigation and detection of cybercrime and the role of digital information, and the wider role of technology as a facilitator for social relationships between deviants and criminals. It includes coverage of: key theoretical and methodological perspectives, computer hacking and digital piracy, economic crime and online fraud, pornography and online sex crime, cyber-bullying and cyber-stalking, cyber-terrorism and extremism, digital forensic investigation and its legal context, cybercrime policy. This book includes lively and engaging features, such as discussion questions, boxed examples of unique events and key figures in offending, quotes from interviews with active offenders and a full glossary of terms. It is supplemented by a companion website that includes further

students exercises and instructor resources. This text is essential reading for courses on cybercrime, cyber-deviancy, digital forensics, cybercrime investigation and the sociology of technology.

The Deviant Security Practices of Cyber Crime - Erik H.A. van de Sandt 2021-08-09

This is the first book to present a full, socio-technical-legal picture on the security practices of cyber criminals, based on confidential police sources related to some of the world's most serious and organized criminals.

Digital Forensics and Cyber Crime - Joshua I. James 2015-10-02

This book constitutes the refereed proceedings of the 7th International Conference on Digital Forensics and Cyber Crime, ICDF2C 2015, held in Seoul, South Korea, in October 2015. The 14 papers and 3 abstracts were selected from 40 submissions and cover diverse topics ranging from tactics of cyber crime investigations to digital forensic education, network forensics,

and international cooperation in digital investigations.

Digital Forensics and Cyber Crime - Frank Breiting 2018-12-29

This book constitutes the refereed proceedings of the 10th International Conference on Digital Forensics and Cyber Crime, ICDF2C 2018, held in New Orleans, LA, USA, in September 2018. The 11 reviewed full papers and 1 short paper were selected from 33 submissions and are grouped in topical sections on carving and data hiding, android, forensic readiness, hard drives and digital forensics, artefact correlation.

Critical Concepts, Standards, and Techniques in Cyber Forensics - Husain, Mohammad Shahid 2019-11-22

Advancing technologies, especially computer technologies, have necessitated the creation of a comprehensive investigation and collection methodology for digital and online evidence. The goal of cyber forensics is to perform a structured investigation while maintaining a documented

chain of evidence to find out exactly what happened on a computing device or on a network and who was responsible for it. **Critical Concepts, Standards, and Techniques in Cyber Forensics** is a critical research book that focuses on providing in-depth knowledge about online forensic practices and methods. Highlighting a range of topics such as data mining, digital evidence, and fraud investigation, this book is ideal for security analysts, IT specialists, software engineers, researchers, security professionals, criminal science professionals, policymakers, academicians, and students. *Searching and Seizing Computers and Obtaining Electronic Evidence in Criminal Investigations* - Orin S. Kerr 2001

Emerging Digital Forensics Applications for Crime Detection, Prevention, and Security - Chang-Tsun Li 2013

The revolutionary way in which modern technologies have enabled us to exchange

information with ease has led to the emergence of interdisciplinary research in digital forensics and investigations, which aims to combat the abuses of computer technologies. **Emerging Digital Forensics Applications for Crime Detection, Prevention, and Security** presents various digital crime and forensic disciplines that use electronic devices and software for crime prevention and detection. This book provides theoretical and empirical research articles and case studies for a broad range of academic readers as well as professionals, industry consultants, and practitioners involved in the use, design, and development of techniques related to digital forensics and investigation.

[Researching Cybercrimes](#) - Thomas J. Holt 2021
This edited book promotes and facilitates cybercrime research by providing a cutting-edge collection of perspectives on the critical usage of online data across platforms, as well as the implementation of both traditional and

innovative analysis methods. The accessibility, variety and wealth of data available online presents substantial opportunities for researchers from different disciplines to study cybercrimes and, more generally, human behavior in cyberspace. The unique and dynamic characteristics of cyberspace often demand cross-disciplinary and cross-national research endeavors, but disciplinary, cultural and legal differences can hinder the ability of researchers to collaborate. This work also provides a review of the ethics associated with the use of online data sources across the globe. The authors are drawn from multiple disciplines and nations, providing unique insights into the value and challenges evident in online data use for cybercrime scholarship. It is a key text for researchers at the upper undergraduate level and above.

[ICIW2012-Proceedings of the 7th International Conference on Information Warfare and Security](#)
- Volodymyr Lysenko 2012

Advances in Digital Forensics VII - Gilbert Peterson 2011-09-15

Digital forensics deals with the acquisition, preservation, examination, analysis and presentation of electronic evidence. Networked computing, wireless communications and portable electronic devices have expanded the role of digital forensics beyond traditional computer crime investigations. Practically every crime now involves some aspect of digital evidence; digital forensics provides the techniques and tools to articulate this evidence. Digital forensics also has myriad intelligence applications. Furthermore, it has a vital role in information assurance -- investigations of security breaches yield valuable information that can be used to design more secure systems. *Advances in Digital Forensics VII* describes original research results and innovative applications in the discipline of digital forensics. In addition, it highlights some of the major technical and legal issues related to digital

evidence and electronic crime investigations. The areas of coverage include: Themes and Issues, Forensic Techniques, Fraud and Malware Investigations, Network Forensics, and Advanced Forensic Techniques. This book is the 7th volume in the annual series produced by the International Federation for Information Processing (IFIP) Working Group 11.9 on Digital Forensics, an international community of scientists, engineers and practitioners dedicated to advancing the state of the art of research and practice in digital forensics. The book contains a selection of 21 edited papers from the 7th Annual IFIP WG 11.9 International Conference on Digital Forensics, held at the National Center for Forensic Science, Orlando, Florida, USA in the spring of 2011. *Advances in Digital Forensics VII* is an important resource for researchers, faculty members and graduate students, as well as for practitioners and individuals engaged in research and development efforts for the law enforcement and intelligence communities.

Gilbert Peterson is an Associate Professor of Computer Engineering at the Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, USA. Sujeet Shenoj is the F.P. Walter Professor of Computer Science at the University of Tulsa, Tulsa, Oklahoma, USA.

Contemporary Digital Forensic Investigations of Cloud and Mobile Applications - Kim-Kwang Raymond Choo 2016-10-12

Contemporary Digital Forensic Investigations of Cloud and Mobile Applications comprehensively discusses the implications of cloud (storage) services and mobile applications on digital forensic investigations. The book provides both digital forensic practitioners and researchers with an up-to-date and advanced knowledge of collecting and preserving electronic evidence from different types of cloud services, such as digital remnants of cloud applications accessed through mobile devices. This is the first book that covers the investigation of a wide range of cloud services. Dr. Kim-Kwang Raymond Choo

and Dr. Ali Dehghantanha are leading researchers in cloud and mobile security and forensics, having organized research, led research, and been published widely in the field. Users will gain a deep overview of seminal research in the field while also identifying prospective future research topics and open challenges. Presents the most current, leading edge research on cloud and mobile application forensics, featuring a panel of top experts in the field Introduces the first book to provide an in-depth overview of the issues surrounding digital forensic investigations in cloud and associated mobile apps Covers key technical topics and provides readers with a complete understanding of the most current research findings Includes discussions on future research directions and challenges

Global Security, Safety, and Sustainability -

Hamid Jahankhani 2012-08-29

This book constitutes the thoroughly refereed post-conference proceedings of the 7th

International Conference on Global Security, Safety, and Sustainability (ICDS3), and of the 4th e-Democracy Joint Conferences (e-Democracy 2011) which were held in Thessaloniki in August 2011. The 37 revised full papers presented were carefully selected from numerous submissions. Conference papers promote research and development activities of innovative applications and methodologies and applied technologies.

[Handbook of Research on Cyber Crime and Information Privacy](#) - Cruz-Cunha, Maria Manuela 2020-08-21

In recent years, industries have transitioned into the digital realm, as companies and organizations are adopting certain forms of technology to assist in information storage and efficient methods of production. This dependence has significantly increased the risk of cyber crime and breaches in data security. Fortunately, research in the area of cyber security and information protection is

flourishing; however, it is the responsibility of industry professionals to keep pace with the current trends within this field. The Handbook of Research on Cyber Crime and Information Privacy is a collection of innovative research on the modern methods of crime and misconduct within cyber space. It presents novel solutions to securing and preserving digital information through practical examples and case studies. While highlighting topics including virus detection, surveillance technology, and social networks, this book is ideally designed for cybersecurity professionals, researchers, developers, practitioners, programmers, computer scientists, academicians, security analysts, educators, and students seeking up-to-date research on advanced approaches and developments in cyber security and information protection.

Advances in Internet, Data and Web Technologies - Leonard Barolli 2019-02-05

This book presents original contributions on the

theories and practices of emerging Internet, Data and Web technologies and their applications in businesses, engineering and academia. As a key feature, it addresses advances in the life-cycle exploitation of data generated by digital ecosystem technologies. The Internet has become the most proliferative platform for emerging large-scale computing paradigms. Among these, Data and Web technologies are two of the most prominent paradigms, manifesting in a variety of forms such as Data Centers, Cloud Computing, Mobile Cloud, Mobile Web Services, and so on. These technologies altogether create a digital ecosystem whose cornerstone is the data cycle, from capturing to processing, analysis and visualization. The need to investigate various research and development issues in this digital ecosystem has been made even more pressing by the ever-increasing demands of real-life applications, which are based on storing and processing large amounts of data. Given its

scope, the book offers a valuable asset for all researchers, software developers, practitioners and students interested in the field of Data and Web technologies.

Digital Forensics and Cyber Crime - Pavel Gladyshev 2014-12-22

This book constitutes the thoroughly refereed post-conference proceedings of the 5th International ICST Conference on Digital Forensics and Cyber Crime, ICDF2C 2013, held in September 2013 in Moscow, Russia. The 16 revised full papers presented together with 2 extended abstracts and 1 poster paper were carefully reviewed and selected from 38 submissions. The papers cover diverse topics in the field of digital forensics and cybercrime, ranging from regulation of social networks to file carving, as well as technical issues, information warfare, cyber terrorism, critical infrastructure protection, standards, certification, accreditation, automation and digital forensics in the cloud.

ICICKM2010-Proceedings of the 7th International Conference on Intellectual Capital, knowledge Management and Organisational Learning - Eric Tsui

Cybersecurity and Privacy in Cyber Physical Systems - Yassine Maleh 2019-05-01

Cybersecurity and Privacy in Cyber-Physical Systems collects and reports on recent high-quality research that addresses different problems related to cybersecurity and privacy in cyber-physical systems (CPSs). It Presents high-quality contributions addressing related theoretical and practical aspects Improves the reader's awareness of cybersecurity and privacy in CPSs Analyzes and presents the state of the art of CPSs, cybersecurity, and related technologies and methodologies Highlights and discusses recent developments and emerging trends in cybersecurity and privacy in CPSs Proposes new models, practical solutions, and technological advances related to cybersecurity

and privacy in CPSs Discusses new cybersecurity and privacy models, prototypes, and protocols for CPSs This comprehensive book promotes high-quality research by bringing together researchers and experts in CPS security and privacy from around the world to share their knowledge of the different aspects of CPS security. *Cybersecurity and Privacy in Cyber-Physical Systems* is ideally suited for policymakers, industrial engineers, researchers, academics, and professionals seeking a thorough understanding of the principles of cybersecurity and privacy in CPSs. They will learn about promising solutions to these research problems and identify unresolved and challenging problems for their own research. Readers will also have an overview of CPS cybersecurity and privacy design.

[ICCWS2014- 9th International Conference on Cyber Warfare & Security](#) - Dr. Sam Liles
2014-03-24

[Digital Forensics and Cyber Crime](#) - Joshua I. James 2015-12-25

This book constitutes the refereed proceedings of the 7th International Conference on Digital Forensics and Cyber Crime, ICDF2C 2015, held in Seoul, South Korea, in October 2015. The 14 papers and 3 abstracts were selected from 40 submissions and cover diverse topics ranging from tactics of cyber crime investigations to digital forensic education, network forensics, and international cooperation in digital investigations.

Digital Forensics - André Årnes 2017-05-18
The definitive text for students of digital forensics, as well as professionals looking to deepen their understanding of an increasingly critical field Written by faculty members and associates of the world-renowned Norwegian Information Security Laboratory (NisLab) at the Norwegian University of Science and Technology (NTNU), this textbook takes a scientific approach to digital forensics ideally

suites for university courses in digital forensics and information security. Each chapter was written by an accomplished expert in his or her field, many of them with extensive experience in law enforcement and industry. The author team comprises experts in digital forensics, cybercrime law, information security and related areas. Digital forensics is a key competency in meeting the growing risks of cybercrime, as well as for criminal investigation generally. Considering the astonishing pace at which new information technology - and new ways of exploiting information technology - is brought on line, researchers and practitioners regularly face new technical challenges, forcing them to continuously upgrade their investigatory skills. Designed to prepare the next generation to rise to those challenges, the material contained in Digital Forensics has been tested and refined by use in both graduate and undergraduate programs and subjected to formal evaluations for more than ten years. Encompasses all

aspects of the field, including methodological, scientific, technical and legal matters. Based on the latest research, it provides novel insights for students, including an informed look at the future of digital forensics. Includes test questions from actual exam sets, multiple choice questions suitable for online use and numerous visuals, illustrations and case example images. Features real-world examples and scenarios, including court cases and technical problems, as well as a rich library of academic references and references to online media. Digital Forensics is an excellent introductory text for programs in computer science and computer engineering and for master degree programs in military and police education. It is also a valuable reference for legal practitioners, police officers, investigators, and forensic practitioners seeking to gain a deeper understanding of digital forensics and cybercrime.

Cybercrime and Digital Forensics - Thomas J. Holt 2022-05-31

This book offers a comprehensive and integrative introduction to cybercrime. It provides an authoritative synthesis of the disparate literature on the various types of cybercrime, the global investigation and detection of cybercrime and the role of digital information, and the wider role of technology as a facilitator for social relationships between deviants and criminals. It includes coverage of:

- key theoretical and methodological perspectives;
- computer hacking and malicious software;
- digital piracy and intellectual theft;
- economic crime and online fraud;
- pornography and online sex crime;
- cyber-bullying and cyber-stalking;
- cyber-terrorism and extremism;
- the rise of the Dark Web;
- digital forensic investigation and its legal context around the world;
- the law enforcement response to cybercrime transnationally;
- cybercrime policy and legislation across the globe.

The new edition has been revised and updated, featuring two new chapters; the first offering an expanded

discussion of cyberwarfare and information operations online, and the second discussing illicit market operations for all sorts of products on both the Open and Dark Web. This book includes lively and engaging features, such as discussion questions, boxed examples of unique events and key figures in offending, quotes from interviews with active offenders, and a full glossary of terms. It is supplemented by a companion website that includes further exercises for students and instructor resources. This text is essential reading for courses on cybercrime, cyber-deviancy, digital forensics, cybercrime investigation, and the sociology of technology.

[The Best Damn Cybercrime and Digital Forensics Book Period](#) - Jack Wiles 2011-04-18
Electronic discovery refers to a process in which electronic data is sought, located, secured, and searched with the intent of using it as evidence in a legal case. Computer forensics is the application of computer investigation and

analysis techniques to perform an investigation to find out exactly what happened on a computer and who was responsible. IDC estimates that the U.S. market for computer forensics will be grow from \$252 million in 2004 to \$630 million by 2009. Business is strong outside the United States, as well. By 2011, the estimated international market will be \$1.8 billion dollars. The Techno Forensics Conference has increased in size by almost 50% in its second year; another example of the rapid growth in the market. This book is the first to combine cybercrime and digital forensic topics to provides law enforcement and IT security professionals with the information needed to manage a digital investigation. Everything needed for analyzing forensic data and recovering digital evidence can be found in one place, including instructions for building a digital forensics lab. * Digital investigation and forensics is a growing industry * Corporate I.T. departments investigating corporate espionage and criminal activities are

learning as they go and need a comprehensive guide to e-discovery * Appeals to law enforcement agencies with limited budgets *Encyclopedia of Criminal Activities and the Deep Web* - Khosrow-Pour D.B.A., Mehdi 2020-02-01 As society continues to rely heavily on technological tools for facilitating business, e-commerce, banking, and communication, among other applications, there has been a significant rise in criminals seeking to exploit these tools for their nefarious gain. Countries all over the world are seeing substantial increases in identity theft and cyberattacks, as well as illicit transactions, including drug trafficking and human trafficking, being made through the dark web internet. Sex offenders and murderers explore unconventional methods of finding and contacting their victims through Facebook, Instagram, popular dating sites, etc., while pedophiles rely on these channels to obtain information and photographs of children, which are shared on hidden community sites. As

criminals continue to harness technological advancements that are outpacing legal and ethical standards, law enforcement and government officials are faced with the challenge of devising new and alternative strategies to identify and apprehend criminals to preserve the safety of society. The Encyclopedia of Criminal Activities and the Deep Web is a three-volume set that includes comprehensive articles covering multidisciplinary research and expert insights provided by hundreds of leading researchers from 30 countries including the United States, the United Kingdom, Australia, New Zealand, Germany, Finland, South Korea, Malaysia, and more. This comprehensive encyclopedia provides the most diverse findings and new methodologies for monitoring and regulating the use of online tools as well as hidden areas of the internet, including the deep and dark web. Highlighting a wide range of topics such as cyberbullying, online hate speech, and hacktivism, this book will offer strategies for

the prediction and prevention of online criminal activity and examine methods for safeguarding internet users and their data from being tracked or stalked. Due to the techniques and extensive knowledge discussed in this publication it is an invaluable addition for academic and corporate libraries as well as a critical resource for policy makers, law enforcement officials, forensic scientists, criminologists, sociologists, victim advocates, cybersecurity analysts, lawmakers, government officials, industry professionals, academicians, researchers, and students within this field of study.

ICCWS 2022 17th International Conference on Cyber Warfare and Security - 2022-03-17

The "Essence" of Network Security: An End-to-End Panorama - Mohuya Chakraborty
2020-11-24

This edited book provides an optimal portrayal of the principles and applications related to network security. The book is thematically

divided into five segments: Part A describes the introductory issues related to network security with some concepts of cutting-edge technologies; Part B builds from there and exposes the readers to the digital, cloud and IoT forensics; Part C presents readers with blockchain and cryptography techniques; Part D deals with the role of AI and machine learning in the context of network security. And lastly, Part E is written on different security networking methodologies. This is a great book on network security, which has lucid and well-planned chapters. All the latest security technologies are thoroughly explained with upcoming research issues. Details on Internet architecture, security needs, encryption, cryptography along with the usages of machine learning and artificial intelligence for network security are presented in a single cover. The broad-ranging text/reference comprehensively surveys network security concepts, methods, and practices and covers network security policies and goals in an

integrated manner. It is an essential security resource for practitioners in networks and professionals who develop and maintain secure computer networks.

An Overview on Cybercrime & Security, Volume - I - Akash Kamal Mishra 2020-08-17

Cybersecurity is significant in light of the fact that cybersecurity chance is expanding. Driven by worldwide network and use of cloud administrations, similar to Amazon Web Services, to store touchy information and individual data. Across the board, helpless setup of cloud administrations combined with progressively refined cybercriminals implies the hazard that your association experiences a fruitful digital assault or information break is on the ascent. Digital dangers can emerge out of any degree of your association. You should teach your staff about basic social building tricks like phishing and more complex cybersecurity assaults like ransomware or other malware intended to take protected innovation or

individual information and many more. I hereby present a manual which will not only help you to know your rights as well as how to keep yourself safe on cyberspace. The book has been awarded by many experts as well as it has also been recognised by the University of Mumbai for their B.com - Banking & Insurance as well as on Investment Management Program.

Security in Computing and Communications

- Sabu M. Thampi 2020-04-25

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.

Cyber Criminology - Hamid Jahankhani

2018-11-27

This book provides a comprehensive overview of the current and emerging challenges of cyber criminology, victimization and profiling. It is a compilation of the outcomes of the collaboration between researchers and practitioners in the cyber criminology field, IT law and security field. As Governments, corporations, security firms, and individuals look to tomorrow's cyber security challenges, this book provides a reference point for experts and forward-thinking analysts at a time when the debate over how we plan for the cyber-security of the future has become a major concern. Many criminological perspectives define crime in terms of social, cultural and material characteristics, and view crimes as taking place at a specific geographic location. This definition has allowed crime to be characterised, and crime prevention, mapping and measurement methods to be tailored to specific target audiences. However, this characterisation cannot be carried over to cybercrime, because the environment in which

such crime is committed cannot be pinpointed to a geographical location, or distinctive social or cultural groups. Due to the rapid changes in technology, cyber criminals' behaviour has become dynamic, making it necessary to reclassify the typology being currently used. Essentially, cyber criminals' behaviour is evolving over time as they learn from their actions and others' experiences, and enhance their skills. The offender signature, which is a repetitive ritualistic behaviour that offenders often display at the crime scene, provides law enforcement agencies an appropriate profiling tool and offers investigators the opportunity to understand the motivations that perpetrate such crimes. This has helped researchers classify the type of perpetrator being sought. This book offers readers insights into the psychology of cyber criminals, and understanding and analysing their motives and the methodologies they adopt. With an understanding of these motives, researchers, governments and

practitioners can take effective measures to tackle cybercrime and reduce victimization.

The SAGE Encyclopedia of the Internet - Barney Warf 2018-05-15

The Internet needs no introduction, and its significance today can hardly be exaggerated. Today, more people are more connected technologically to one another than at any other time in human existence. For a large share of the world's people, the Internet, text messaging, and various other forms of digital social media such as Facebook have become thoroughly woven into the routines and rhythms of daily life. The Internet has transformed how we seek information, communicate, entertain ourselves, find partners, and, increasingly, it shapes our notions of identity and community. The SAGE Encyclopedia of the Internet addresses the many related topics pertaining to cyberspace, email, the World Wide Web, and social media. Entries will range from popular topics such as Alibaba and YouTube to important current controversies

such as Net neutrality and cyberterrorism. The goal of the encyclopedia is to provide the most comprehensive collection of authoritative entries on the Internet available, written in a style accessible to academic and non-academic audiences alike.

Cyber Crime and Forensic Computing -

Gulshan Shrivastava 2021-09-07

This book presents a comprehensive study of different tools and techniques available to perform network forensics. Also, various aspects of network forensics are reviewed as well as related technologies and their limitations. This helps security practitioners and researchers in better understanding of the problem, current solution space, and future research scope to detect and investigate various network intrusions against such attacks efficiently.

Forensic computing is rapidly gaining importance since the amount of crime involving digital systems is steadily increasing.

Furthermore, the area is still underdeveloped

and poses many technical and legal challenges. The rapid development of the Internet over the past decade appeared to have facilitated an increase in the incidents of online attacks. There are many reasons which are motivating the attackers to be fearless in carrying out the attacks. For example, the speed with which an attack can be carried out, the anonymity provided by the medium, nature of medium where digital information is stolen without actually removing it, increased availability of potential victims and the global impact of the attacks are some of the aspects. Forensic analysis is performed at two different levels: Computer Forensics and Network Forensics. Computer forensics deals with the collection and analysis of data from computer systems, networks, communication streams and storage media in a manner admissible in a court of law. Network forensics deals with the capture, recording or analysis of network events in order to discover evidential information about the

source of security attacks in a court of law. Network forensics is not another term for network security. It is an extended phase of network security as the data for forensic analysis are collected from security products like firewalls and intrusion detection systems. The results of this data analysis are utilized for investigating the attacks. Network forensics generally refers to the collection and analysis of network data such as network traffic, firewall logs, IDS logs, etc. Technically, it is a member of the already-existing and expanding the field of digital forensics. Analogously, network forensics is defined as "The use of scientifically proved techniques to collect, fuses, identifies, examine, correlate, analyze, and document digital evidence from multiple, actively processing and transmitting digital sources for the purpose of uncovering facts related to the planned intent, or measured success of unauthorized activities meant to disrupt, corrupt, and or compromise system components as well as providing

information to assist in response to or recovery from these activities." Network forensics plays a significant role in the security of today's organizations. On the one hand, it helps to learn the details of external attacks ensuring similar future attacks are thwarted. Additionally, network forensics is essential for investigating insiders' abuses that constitute the second costliest type of attack within organizations. Finally, law enforcement requires network forensics for crimes in which a computer or digital system is either being the target of a crime or being used as a tool in carrying a crime. Network security protects the system against attack while network forensics focuses on recording evidence of the attack. Network security products are generalized and look for possible harmful behaviors. This monitoring is a continuous process and is performed all through the day. However, network forensics involves post mortem investigation of the attack and is initiated after crime notification. There are many

tools which assist in capturing data transferred over the networks so that an attack or the malicious intent of the intrusions may be investigated. Similarly, various network forensic frameworks are proposed in the literature.

Cyber and Digital Forensic Investigations - Nhien-An Le-Khac 2020-07-25

Understanding the latest capabilities in the cyber threat landscape as well as the cyber forensic challenges and approaches is the best way users and organizations can prepare for potential negative events. Adopting an experiential learning approach, this book describes how cyber forensics researchers, educators and practitioners can keep pace with technological advances, and acquire the essential knowledge and skills, ranging from IoT forensics, malware analysis, and CCTV and cloud forensics to network forensics and financial investigations. Given the growing importance of incident response and cyber forensics in our digitalized society, this book will be of interest

and relevance to researchers, educators and practitioners in the field, as well as students wanting to learn about cyber forensics.

The History of Cybercrime - Stein Schjølberg 2020-02-21

The third edition of this book presents the history of computer crime and cybercrime from the very beginning with punch cards, to the latest developments - including the attacks in the context of the 2016 US Election. Today the technological development of social media, such as Google, Facebook, YouTube, Twitter, and more, have been so rapid and the impact on society so fast and enormous, that codes of ethics, and public sentiments of justice implemented in criminal legislations, have not kept pace. Conducts in social media need a better protection by criminal laws. The United Nations Declarations and principles for the protection of individual and human rights are fundamental rights also in Cyberspace. The same rights that people have offline must also be

protected online. Cyber attacks against critical information infrastructures of sovereign States, public institutions, private industry and individuals, must necessitate a response for global solutions. In conducting investigation and prosecution of cybercrime countries should understand that international coordination and cooperation are necessary in prosecuting cross-border cybercrime. It is critical that the police work closely with government and other elements of the criminal justice system, Interpol, Europol and other international organizations.

Proceedings of the Seventh International Workshop on Digital Forensics and Incident Analysis (WDFIA 2012) - Nathan Clarke 2012

The field of digital forensics is rapidly evolving and continues to gain significance in both the law enforcement and the scientific community. Being intrinsically interdisciplinary, it draws upon a wide range of subject areas such as information & communication technologies, law, social sciences and business administration.

With this in mind, the workshop on Digital Forensics and Incident Analysis (WDFIA) specifically addresses this multi-faceted aspect, with papers invited from the full spectrum of issues relating to digital forensics and incident analysis. This book represents the proceedings from the 2012 event, which was held in Crete, Greece. A total of 13 papers are included, spanning a range of topics including systems and network investigation, services and applications and supporting the forensic process. All of the papers were subject to double-blind peer review, with each being reviewed by at least two members of the international programme committee.

National Cyber Summit (NCS) Research Track 2021 - Kim-Kwang Raymond Choo 2021-08-08
This book presents findings from the papers accepted at the Cyber Security Education Stream and Cyber Security Technology Stream of The National Cyber Summit's Research Track, reporting on latest advances on topics ranging

from software security to cyber-attack detection and modelling to the use of machine learning in cyber security to legislation and policy to surveying of small businesses to cyber competition, and so on. Understanding the latest capabilities in cyber security ensures users and organizations are best prepared for potential negative events. This book is of interest to cyber security researchers, educators and practitioners, as well as students seeking to learn about cyber security.

Open Source Intelligence Investigation - Babak Akhgar 2017-01-01

One of the most important aspects for a successful police operation is the ability for the police to obtain timely, reliable and actionable intelligence related to the investigation or incident at hand. Open Source Intelligence (OSINT) provides an invaluable avenue to access and collect such information in addition to traditional investigative techniques and information sources. This book offers an

authoritative and accessible guide on how to conduct Open Source Intelligence investigations from data collection to analysis to the design and vetting of OSINT tools. In its pages the reader will find a comprehensive view into the newest methods for OSINT analytics and visualizations in combination with real-life case studies to showcase the application as well as the challenges of OSINT investigations across domains. Examples of OSINT range from information posted on social media as one of the most openly available means of accessing and gathering Open Source Intelligence to location data, OSINT obtained from the darkweb to combinations of OSINT with real-time analytical capabilities and closed sources. In addition it provides guidance on legal and ethical considerations making it relevant reading for practitioners as well as academics and students with a view to obtain thorough, first-hand knowledge from serving experts in the field.

Big Data Analytics and Computing for Digital

Forensic Investigations - Suneeta Satpathy

2020-03-17

Digital forensics has recently gained a notable development and become the most demanding area in today's information security requirement. This book investigates the areas of digital forensics, digital investigation and data analysis procedures as they apply to computer fraud and cybercrime, with the main objective of describing a variety of digital crimes and retrieving potential digital evidence. Big Data Analytics and Computing for Digital Forensic Investigations gives a contemporary view on the problems of information security. It presents the idea that protective mechanisms and software must be integrated along with forensic capabilities into existing forensic software using big data computing tools and techniques. Features Describes trends of digital forensics served for big data and the challenges of evidence acquisition Enables digital forensic investigators and law enforcement agencies to

enhance their digital investigation capabilities with the application of data science analytics, algorithms and fusion technique This book is focused on helping professionals as well as researchers to get ready with next-generation security systems to mount the rising challenges of computer fraud and cybercrimes as well as with digital forensic investigations. Dr Suneeta Satpathy has more than ten years of teaching experience in different subjects of the Computer Science and Engineering discipline. She is currently working as an associate professor in the Department of Computer Science and Engineering, College of Bhubaneswar, affiliated with Biju Patnaik University and Technology, Odisha. Her research interests include computer forensics, cybersecurity, data fusion, data mining, big data analysis and decision mining. Dr Sachi Nandan Mohanty is an associate professor in the Department of Computer Science and Engineering at ICFAI Tech, ICFAI Foundation for Higher Education, Hyderabad,

India. His research interests include data mining, big data analysis, cognitive science, fuzzy decision-making, brain-computer interface, cognition and computational intelligence.

Securing Social Identity in Mobile Platforms -
Thirimachos Bourlai 2020-06-02

The book presents novel research in the areas of social identity and security when using mobile platforms. The topics cover a broad range of applications related to securing social identity as well as the latest advances in the field, including the presentation of novel research methods that are in the service of all citizens using mobile devices. More specifically, academic, industry-related and government (law enforcement, intelligence and defence) organizations, will benefit from the research topics of this book that cover the concept of identity management and security using mobile platforms from various perspectives, i.e. whether a user navigates to social media, accesses their own phone devices,

access their bank accounts, uses online shopping service providers, accesses their personal documents or accounts with valuable information, surfs the internet, or even becomes a victim of cyberattacks. In all of the aforementioned cases, there is a need for mobile related technologies that protect the users' social identity and well-being in the digital world, including the use of biometrics, cybersecurity software and tools, active authentication and identity anti-spoofing algorithms and more.

ECCWS2016-Proceedings fo the 15th European Conference on Cyber Warfare and Security " -
Robert Koch 2016-06-15

These proceedings represent the work of researchers participating in the 15th European Conference on Cyber Warfare and Security (ECCWS 2016) which is being hosted this year by the Universitat der Bundeswehr, Munich, Germany on the 7-8 July 2016. ECCWS is a recognised event on the International research

conferences calendar and provides a valuable plat-form for individuals to present their research findings, display their work in progress and discuss conceptual and empirical advances in the area of Cyberwar and Cyber Security. It provides an important opportunity for researchers and managers to come together with peers to share their experiences of using the varied and ex-panding range of Cyberwar and Cyber Security research available to them. With an initial submission of 110 abstracts, after the double blind, peer review process there are 37 Academic research papers and 11 PhD research papers, 1 Master's research paper, 2 Work In Progress papers and 2 non-academic papers published in these Conference Proceedings. These papers come from many different coun-tries including Austria, Belgium, Canada, Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Kenya, Luxembourg, Netherlands, Norway, Portugal, Romania, Russia, Slovenia, South Africa,

Sweden, Turkey, UK and USA. This is not only highlighting the international character of the conference, but is also promising very interesting discussions based on the broad treasure trove of experience of our community and partici-pants."

Intellectual Property Rights in Cyberspace - Akash Kamal Mishra 2020-07-21

The impetus for the development of intellectual property law, at its inception, was to ensure that sufficient incentives exist to lead to innovation and the creation of new and original works and products. The physical world has been relatively successful at erecting barriers to prevent acts that would limit this innovation, in the form of copyright, trademark, and patent regulations.

Cybersecurity, Privacy and Freedom Protection in the Connected World - Hamid Jahankhani 2021-05-20

This book provides an opportunity for investigators, government officials, systems scientists, strategists, assurance researchers,

owners, operators and maintainers of large, complex and advanced systems and infrastructures to update their knowledge with the state of best practice in the challenging domains whilst networking with the leading representatives, researchers and solution providers. Drawing on 12 years of successful events on information security, digital forensics and cyber-crime, the 13th ICGS3-20 conference aims to provide attendees with an information-packed agenda with representatives from across the industry and the globe. The challenges of complexity, rapid pace of change and risk/opportunity issues associated with modern products, systems, special events and infrastructures. In an era of unprecedented volatile, political and economic environment across the world, computer-based systems face

ever more increasing challenges, disputes and responsibilities, and whilst the Internet has created a global platform for the exchange of ideas, goods and services, it has also created boundless opportunities for cyber-crime. As an increasing number of large organizations and individuals use the Internet and its satellite mobile technologies, they are increasingly vulnerable to cyber-crime threats. It is therefore paramount that the security industry raises its game to combat these threats. Whilst there is a huge adoption of technology and smart home devices, comparably, there is a rise of threat vector in the abuse of the technology in domestic violence inflicted through IoT too. All these are an issue of global importance as law enforcement agencies all over the world are struggling to cope.