Register Crime Measurement Methods Forensic Investigation

This is an extremely useful tool for law school libraries & all other law libraries. As in previous editions, Library of Congress call numbers have been added to help library personnel & patrons locate a general number for a topic. Another important feature is the inclusion of a number of terms (set off by brackets) that are not authorized subject terms, but are listed in the classification schedule. Combines a dictionary of key legal terms with an index of leading United States Supreme Court cases indexed by type of case, such as death penalty, right to counsel, and searches and seizures.

Handbook of Forensic Statistics is a collection of chapters by leading authorities in forensic statistics. Written for statisticians, scientists, and legal professionals having a broad range of statistical expertise, it summarizes and compares basic methods of statistical inference (frequentist, likelihoodist, and Bayesian) for trace and other evidence that links individuals to crimes, the modern history and key controversies in the field, and the psychological and legal aspects of such scientific evidence. Specific topics include uncertainty in measurements and conclusions; statistically valid statements of weight of evidence or source conclusions; admissibility and presentation of statistical findings; and the state of the art of methods (including problems and pitfalls) for collecting, analyzing, and interpreting data in such areas as forensic biology, chemistry, and pattern and impression evidence. The particular types of evidence that are discussed include DNA, latent fingerprints, firearms and toolmarks, glass, handwriting, shoeprints, and voice exemplars. The first extended analysis of the relationship between Italian criminology and crime fiction in English, Methods of Murder examines works by major authors both popular, such as Gianrico Carofiglio, and canonical, such as Carlo Emilio Gadda. Many scholars have argued that detective fiction did not exist in Italy until 1929, and that the genre, which was considered largely Anglo-Saxon, was irrelevant on the Italian Peninsula. By contrast, Past traces the roots of the twentieth-century literature and cinema of crime to two much earlier, diverging interpretations of the criminal: the bodiless figure of Cesare Beccaria’s Enlightenment-era On Crimes and Punishments, and the biological offender of Cesare Lombroso’s positivist Criminal Man. Through her examinations of these texts, Past demonstrates the links between literary, philosophical, and scientific constructions of the criminal, and provides the basis for an important reconceptualization of Italian crime fiction.

This text provides an examination of the aetiological development of forensic criminology in the UK. It links the subjects of scientific criminology, criminal investigations, crime scene investigation, forensic science and the legal system and it provides an introduction to the important processes that take place between the crime scene and the courtroom. These processes help identify, define and label the ‘criminal’ and are crucial for understanding any form of crime within society. The book includes sections on: • the epistemological and ontological philosophies of the natural sciences; • the birth of scientific criminology and its search for the criminal ‘body’; • the development of early forms of forensic science and crime scene investigation; • investigating crime; • information, material and evidence; • crime analysis and crime mapping; • scientific support and crime scene examination; and • forensic science and detection methods and forensics in the courtroom. The text combines coverage of historical research and contemporary criminal justice processes and provides an introduction to the most common forensic practices, procedures and uses that enable the identification and successful prosecution of criminals.

Forensic Criminology is essential for students of criminology, criminal justice, criminal investigations and crime science. It is also useful to those criminal justice practitioners wishing to gain a more in-depth understanding of the links between criminology, criminal investigations and forensics techniques. The fourth edition of Knight's Forensic Pathology continues to be the definitive international resource for those in training and in practice, covering all aspects of the medico-legal autopsy, including the cause and time of death, interpretation of wounds and every other facet of the investigation of a fatality. The contents are intended to lead the pathologist – and in some countries, the non-pathologist – through the procedures needed in the examination of a body found under obscure, suspicious or even criminal circumstances. Although police procedures and the habits of pathologists may vary from country to country, the philosophy and techniques presented in this book offer a guide to good practices that can be modified according to local circumstances. In this new edition the text has been thoroughly updated and is complemented by the addition of over 200 new colour illustrations. It maintains the praised tradition of clarity and readability established since Prof. Bernard Knight’s first edition was published in 1991, with an emphasis on the practical application of knowledge and research findings and the avoidance of over-interpretation.

This book addresses the multidisciplinary challenges in biodiversity conservation with a focus on wildlife crime and how forensic tools can be applied to protect species and preserve ecosystems. Illustrated by numerous case studies covering different geographical regions and species the book introduces to the fundamentals of biodiversity conflicts, outlines the unique challenges of wildlife crime scenes and reviews latest techniques in environmental forensics, such as DNA metagenomics. In addition, the volume explores the socio-economic perspective of biodiversity protection and provides an overview of national and international conservation laws. The field of conservation medicine stresses the importance of recognizing that human health, animal health, and ecosystem health are inextricably interdependent. The book addresses graduate students, scientists and veterinary professionals working in wildlife research and conservation biology.

Criminal justice professionals will also find it valuable and fascinating balance of academic research and "true crime" material they can relate to in their own experience. Maps the global distribution of lethal violence and presents an overview of the changing nature of conflict and crime.
Offers a diverse, interdisciplinary, and eye-opening view of the future direction of forensic science. This one-of-a-kind book is a collection of content from the Past and Current Presidents of the American Academy of Forensic Sciences—providing readers with all of their forensic science experience, knowledge, insight, and wisdom. It envisions where forensic science will be a decade from now and the impact of these emerging advances on the law (along with our place in it), emphasizing theoretical advances, innovative leads from the laboratory, and emerging technologies. Filled with information from some of the greatest forensic minds of their generation, The Future of Forensic Science covers all of the eleven sections that comprise the AAFS. It discusses new directions in forensic anthropology, and looks at the future of such disciplines as criminalistics, forensic engineering science, forensic psychiatry and behavioral science, forensic toxicology, and forensic document examination. It also touches on the current and future state of digital and multimedia sciences.

Contains contributions from an eminent group of forensic science experts. Presents a valuable repository of forensic science experience, knowledge, insight, and wisdom. Offers an insightful interdisciplinary look at the future of forensic science and how it is changing forensic science for the better. Timed to coincide with the NIST forensic science initiative and the OSAC process, The Future of Forensic Science is a must-have book for practicing forensic science professionals, academics, and advanced undergraduate and graduate students in forensic science. This book is published as part of the AAFS series “Forensic Science in Focus.”

This book reports on cutting-edge theories and methods for analyzing complex systems, such as transportation and communication networks, and discusses multi-disciplinary approaches to dependability problems encountered when dealing with complex systems in practice. The book presents the most noteworthy methods and results discussed at the International Conference on Reliability and Statistics in Transportation and Communication (ReStat), which took place in Riga, Latvia on October 17–20, 2018. It spans a broad spectrum of topics, from mathematical models and design methodologies, to software engineering, data security and financial issues, as well as practical problems in technical systems, such as transportation and telecommunications, and in engineering education.

Identity theft, criminal investigations of the dead or missing, mass disasters both by natural causes and by criminal intent with this as our day to day reality, the establishment and verification of human identity has never been more important or more prominent in our society. Maintaining and protecting the integrity of out identity has reached Crimes associated with the illegal trade in wildlife, timber and fish stocks, pollutants and waste have become increasingly transnational, organized and serious. They warrant attention because of their environmental consequences, their human toll, their impacts on the rule of law and good governance, and their links with violence, corruption and a range of crossover crimes. This ground-breaking, multi-disciplinary Handbook brings together leading scholars and practitioners to examine key sectors in transnational environmental crime and to explore its most significant conceptual, operational and enforcement challenges.

Methods and Techniques of Signal Processing in Physical Measurements

Crime prevention, surveillance, and restorative justice have transformed the response to crime in recent years. Each has had a significant impact on policy, introducing new concepts and reassessing traditional aims and priorities. While such efforts attract a great deal of criminological interest, they tend to be discussed within separate and discrete literatures, rather than as part of a cohesive and concerted effort. Urban Crime Prevention, Surveillance, and Restorative Justice: Effects of Social Technologies examines these emerging trends which are increasingly being contemplated by police, courts, and corrections agencies, and explores how these three concepts are changing national and international policies concerning crime. Going beyond the conventional methods for crime reduction, The book addresses these topics within a larger framework of social technology, defined as coordinated action derived from an organized field of knowledge to achieve a particular result. It focuses on efforts aimed at reducing and responding to crime without reliance on the conventional criminal justice practices of police and prisons. The contributors discuss diffusion of knowledge about crime through media and criminological research, surveillance technologies and their effect on crime, and finally, the concept of restorative justice, with an emphasis on juvenile justice and its relationship to social regulations in general. Comprising the contributions of numerous experts in the field of criminology, the book asks “What is the interaction between knowledge, planning, and social repercussions?” The answer to this question forms a valuable basis from which to evaluate proposals for social improvements related to crime.

This book discusses selected issues of modern electrical metrology in the fields of sensor technology, signal processing and measurement systems, addressing theoretical problems and applications regarding measurements in electrical engineering, mechanics, telecommunications, medicine and geology, as well as in the aviation and transport industries. It presents selected papers from the XXII International Seminar of Metrology “Methods and Techniques of Signal Processing in Physical Measurements” (MSM2018) held in Rzeszów-Ar?amów, Poland on September 17–20, 2018. The conference was organized by the Rzeszów University of Technology, Department of Metrology and Diagnostic Systems (Poland) and Lviv Polytechnic National University, Department of Information Measuring Technology (Ukraine). The book provides researchers and practitioners with insights into the state of the art in these areas, and also serves as a source of new ideas for further development and cooperation.

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chemical aspects of forensic science practice. The topics covered in this new edition of Volume I include a broad range of subjects including: • Legal aspects of forensic science • Analytical instrumentation to include: microspectrophotometry, infrared Spectroscopy, gas chromatography, liquid chromatography, capillary electrophoresis, and mass spectrometry • Trace evidence characterization of hairs, dust, paints and inks • Identification of body fluids and human DNA This is an update of a classic reference series and will serve as a must-have desk reference for forensic science practitioners. It will likewise be a welcome resource for professors teaching advanced forensic science techniques and methodologies at universities world-wide, particularly at the graduate level.

The widespread use of information and communications technology (ICT) has created a global platform for the exchange of ideas, goods and services, the benefits of which are enormous. However, it has also created boundless opportunities for fraud and deception. Cybercrime is one of the biggest growth industries around the globe, whether it is in the form of violation of company policies, fraud, hate crime, extremism, or terrorism. It is therefore paramount that the security industry raises its game to combat these threats. Today's top priority is to use computer technology to fight computer crime, as our commonwealth is protected by firewalls rather than firepower. This is an issue of global importance as new technologies have provided a world of opportunity for criminals. This is a compilation of the collaboration between the researchers and practitioners in the security field; and provides a comprehensive literature on current and future e-security needs across applications, implementation, testing or investigative techniques, judicial processes and criminal intelligence. The intended audience includes members in academia, the public and private sectors, students and those who are interested in and will benefit from this handbook.

Professional Issues in Forensic Science will introduce students to various topics they will encounter within the field of Forensic Science. Legal implications within the field will focus on expert witness testimony and procedural rules defined by both legislative statute and court decisions. These decisions affect the collection, analysis, and court admissibility of scientific evidence, such as the Frye and Daubert standards and the Federal Rules of Evidence. Existing and pending Forensic Science legislation will be covered, including laws governing state and national DNA databases. Ethical concerns stemming from the day-to-day balancing of competing priorities encountered by the forensic student will be discussed. Such competing priorities may cause conflicts between good scientific practice and the need to expedite work, meet legal requirements, and satisfy client’s wishes. The role of individual morality in Forensic Science and competing ethical standards between state and defense experts will be addressed. Examinations of ethical guidelines issued by various professional forensic organizations will be conducted. Students will be presented with examples of ethical dilemmas for comment and resolution. The management of crime laboratories will provide discussion on quality assurance/quality control practices and the standards required by the accreditation of laboratories and those proposed by Scientific Working Groups in Forensic Science. The national Academy of Sciences report on Strengthening Forensic Science will be examined to determine the impact of the field. Professional Issues in Forensic Science is a core topic taught in forensic science programs. This volume will be an essential advanced text for academics and an excellent reference for the newly practicing forensic scientist. It will also fit strategically and cluster well with our other forensic science titles addressing professional issues. Introduces readers to various topics they will encounter within the field of Forensic Science Covers legal issues, accreditation and certification, proper analysis, education and training, and management issues Includes a section on professional organizations and groups, both in the U.S. and Internationally Incorporates effective pedagogy, key terms, review questions, discussion question and additional reading suggestions.

This collection examines the subject of identification and surveillance from 16th C English parish registers to 21st C DNA databases. The contributors, who range from historians to legal specialists, provide an insight into the historical development behind such issues as biometric identification, immigration control and personal data use.

Computational Intelligence techniques have been widely explored in various domains including forensics. Analysis in forensic encompasses the study of pattern analysis that answer the question of interest in security, medical, legal, genetic studies and etc. However, forensic analysis is usually performed through experiments in lab which is expensive both in cost and time. Therefore, this book seeks to explore the progress and advancement of computational intelligence technique in different focus areas of forensic studies. This aims to build stronger connection between computer scientists and forensic field experts. This book, Computational Intelligence in Digital Forensics: Forensic Investigation and Applications, is the first volume in the Intelligent Systems Reference Library series. The book presents original research results and innovative applications of computational intelligence in digital forensics. This edited volume contains seventeen chapters and presents the latest state-of-the-art advancement of Computational Intelligence in Digital Forensics; in both theoretical and application papers related to novel discovery in intelligent forensics. The chapters are further organized into three sections: (1) Introduction, (2) Forensic Discovery and Investigation, which discusses the computational intelligence technologies employed in Digital Forensic, and (3) Intelligent Forensic Science Applications, which encompasses the applications of computational intelligence in Digital Forensic, such as human anthropology, human biometrics, human by products, drugs, and electronic devices.

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.
Forensic Investigation

Bimonthly. Abstracts of journal articles and monographs. Covers material from psychiatric literature as well as from criminological sources. Entries arranged in classified order. Author, subject indexes.

This book constitutes the refereed proceedings of the 9th International Conference on Digital Forensics and Cyber Crime, ICDF2C 2017, held in Prague, Czech Republic, in October 2017. The 18 full papers were selected from 50 submissions and are grouped in topical sections on malware and botnet, deanonymization, digital forensics tools, cybercrime investigation and digital forensics triage, digital forensics tools testing and validation, hacking.

Statistics in Practice A new series of practical books outlining the use of statistical techniques in a wide range of application areas: Human and Biological Sciences Earth and Environmental Sciences Industry, Commerce and Finance The use of statistical and probabilistic methods and models in forensic science is of increasing importance, as demonstrated by the widespread public interest in DNA profiling evidence. However, such methods and models are appropriate to a range of other situations also of relevance to forensic scientists. Assuming only a modest mathematical background, the book uses data-based examples from a forensic science background to illustrate, with careful presentation and explanation, the relevant statistical concepts and methods. Topics covered include: Transfer evidence. The likelihood ratio approach for evaluating evidence under conflicting hypotheses produced by the prosecution and the defence. The interpretation of quantitative results—the prosecutor’s and the defender’s fallacies. The examination of DNA profiling, blood groups, glass fragments, etc. The clarity of exposition makes this book ideal for all forensic scientists, lawyers and other professionals in related fields interested in the quantitative assessment and evaluation of evidence.

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 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.

This 16th International Conference on Information Technology - New Generations (ITNG), continues an annual event focusing on state of the art technologies pertaining to digital information and communications. The applications of advanced information technology to such domains as astronomy, biology, education, geosciences, security and health care are among topics of relevance to ITNG. Visionary ideas, theoretical and experimental results, as well as prototypes, designs, and tools that help the information readily flow to the user are of special interest. Machine Learning, Robotics, High Performance Computing, and Innovative Methods of Computing are examples of related topics. The conference features keynote speakers, the best student award, poster award, service award, a technical open panel, and workshops/exhibits from industry, government and academia.

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