Steganography And Digital Watermarking | 56c32bad0a9e161f78b493ef4833b

Special Issue on Steganography and Digital Watermarking

Information Hiding: Steganography and Watermarking

Steganography and Watermarking: Attacks and Countermeasures

Advanced Digital Image Steganography Using LSB, PSV, and EME: Emerging Research and Opportunities

Digital Watermarking and Steganography: Digital Watermarking Techniques

Multimedia Security Information Hiding Methods for Digital Watermarking and Steganography

Handbook of Image-Based Security Techniques and Image Processing and Pattern Recognition

Hiding Techniques for Steganography and Digital Watermarking

Digital and Optical Techniques for Information Hiding: Steganography and Digital Watermarking Techniques for Protection of Intellectual Property

Digital Watermarking and Steganography

Applications and Digital Watermarking and Steganography: Multi-Scale Image Processing: A Modern Approach to Digital Steganography and Steganalysis

Digital Watermarking and Steganography, Second Edition

Digital Watermarking and Steganography

Digital audio, video, images, and documents are flying through cyberspace to their respective owners. Unfortunately, along the way, individuals may choose to intervene and take back this content for themselves. Digital watermarking and steganography technology greatly reduces the instances of this by limiting or eliminating the ability of third parties to decipher the content that he has taken. The many techniques of digital watermarking embedding a code and steganography (hiding information) continue to evolve as applications that necessitate them do the same. The authors of this second edition provide an update on the framework for applying these techniques that provided researchers and professionals in the first well-received edition. Steganography and steganalysis (the art of detecting hidden information) have been added to a robust treatment of digital watermarking, as many in this field research and deal with the other. New material includes watermarking for Internet of Things (IoT), and deep-cover steganography. The authors have authored a must-read book for anyone in this profession. This new edition now contains essential information on steganalysis and steganography New concepts and new applications including UTM included Digital watermark embedding is given a complete update with new processes and applications

This book constitutes the refereed proceedings of the 16th International Workshop on Digital Watermarking, ISWDM 2017, held in Magdeburg, Germany, in October 2017. The 30 papers presented in this volume were carefully reviewed and selected from 48 submissions. The contributions are covering the state-of-the-art of steganography and the rapid growth of the field of digital watermarking. Steganography and steganalysis, forensics and anti-forensics, visual cryptography, and other multimedia-security related issues. Also included are the papers on two special sessions on biometric image tampering detection and on emerging threats of criminal use of information hiding: issues and detection approaches.

A successor to the popular Artech House title Information Hiding Techniques for Steganography and Digital Watermarking, this comprehensive and up-to-date new resource gives the reader a thorough review of steganography, digital watermarking and media fingerprinting with possible applications to modern communication, and a survey of methods used to hide information in modern media. This book explores steganography, as a means by which two or more parties may communicate without intruding on subliminal communication. "Steganalysis" is described as methods which can be used to break steganographic communication. This comprehensive resource also includes an introduction to watermarking and its methods, a means of hiding copyright data in images and discusses commercial multimedia applications that are subject to illegal use. This book demonstrates a working knowledge of watermarking's pros and cons, and the legal implications of watermarking and copyright issues on the Internet.

Every day millions of people capture, store, transmit, and manipulate digital data. Unfortunately, free access digital multimedia communication also provides virtually unlimited opportunities to produce private copyrighted material. Providing the theoretical background needed to develop and implement advanced algorithms and techniques, Watermarking and Steganography: Demystifies how to develop and implement methods to hide the authenticity of digital media. The book categorizes the categorizations of digital watermarking techniques based on characteristics as well as applications Presents cutting-edge techniques such as the CA-based breaking algorithm on the frequency-domain steganalytic system The popularity of digital media continues to soar. The theoretical foundation presented within this valuable reference will facilitate the framework and provide tools and understanding in implementing and fundamental principles.

Information Hiding: Steganography and Watermarking - Attacks and Countermeasures deals with information hiding. With the proliferation of multimedia on the Internet, information hiding addresses two areas of concern: privacy of information from surveillance (steganography) and protection of intellectual property (digital watermarking). Steganography (literally, covered writing) explores methods to hide the existence of hidden messages. These methods include invisible ink, microdot, digital signatures, covert channel, and spread spectrum communication. Digital watermarks represent a commercial application of steganography. Digital watermarking and steganography are especially relevant today due to the global scale of digital media and the rapid growth of the Internet. digital watermarking technology can be used to guarantee authenticity and can be applied as proof that the content has not been altered since its creation. Updated techniques that can advance in watermarking are explored in this new edition. The book includes a collection of papers describing the state-of-the-art of digital watermarking and steganography. Throughout the book, the editors have aimed to cover the key topics of watermarking and steganography, providing a comprehensive overview of the most important research in the field. The book is divided into five parts, each focusing on a specific area of the digital media industry. The first part covers the fundamentals of digital watermarking and steganography, providing a solid foundation for understanding the more advanced topics covered in subsequent parts. The second part of the book focuses on digital watermarking and steganography technologies, including both software and hardware solutions. This part also includes discussions on the legal and ethical implications of watermarking and steganography. The third part of the book explores the practical applications of digital watermarking and steganography, with a focus on the use of these technologies in various industries, including advertising, media production, and law enforcement. The fourth part of the book covers recent advances in digital watermarking and steganography, with a focus on the development of new algorithms and techniques. The final part of the book considers future trends in digital watermarking and steganography, discussing the potential impact of emerging technologies on the industry and exploring the challenges and opportunities that lie ahead.

Amazement This work highlights the myriad of issues regarding digital security. It covers various issues, including perceptual fidelity analysis, image, audio, and 3D mesh object watermarking, medical watermarking, and error detection (authentication) and concealment. Privacy and Copyright protection is a very important issue in our digital society, where a very large amount of multimedia data is generated and distributed daily using various kinds of consumer electronic and very personal communication channels, such as the Web and social networks. This book “Steganography and Watermarking” introduces state-of-the-art techniques for data hiding and copyright protection of digital images, and offers a solid basis for future study and research. Steganographic technique overcomes the traditional cryptographic approach, providing new solutions for secure data transmission without raising user's malicious intention. In steganography, some secret information can be inserted into the original data in imperceptible and efficient ways to avoid distortion of the image, and enhance the embedding capability, respectively. Digital watermarking also adopts data hiding techniques for copyright protection and tampering verification of multimedia data. In steganography, an illegitimate copy can be recognized by testing the presence of a valid watermark and a spurious watermark is an illegitimate copy. Different methods are used to hide secret messages in images, and these techniques can be classified into two main categories: hidden communication and steganography. The book aims to provide a comprehensive overview of the latest research and developments in the field of digital watermarking and steganography, covering both theoretical and practical aspects. This book is essential for researchers, engineers, and practitioners working in the fields of digital image processing, steganography, and watermarking. It is also a valuable resource for students and professionals who want to gain a deeper understanding of these important areas of research.
Steganography and digital watermarking describe techniques that are used to convey information by embedding it into the cover data. However, steganography typically is not robust against modification of the data, or have only limited robustness. Digital watermarking on the other hand should be robust against attempts to remove the hidden data. A popular application of watermarking is to give proof of ownership. It is obvious that for this application the digital watermarking techniques are needed that are especially robust against modification of the data, or have only limited robustness.

This book constitutes the refereed proceedings of the 16th International Workshop on Digital Forensics and Watermarking, IFIP W, held in Dresden, Germany, in September/October 1999. The 33 revised full papers presented were carefully reviewed and selected from a total of 68 submissions. The dominating topic, dealt with in various contexts, is watermarking. The papers are organized in sections on fundamentals of multimedia security, steganography and steganalysis, forensics and anti-forensics, visual cryptography, and other multimedia-related security issues. Also included are the papers on two special sessions on biometric image tampering detection and on emerging threats of criminal use of information hiding: scene scenarios and detection approaches.

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The rapid development of new information technologies has improved the ease of access to digital information. It also leads to the problem of illegal copying and redistribution of digital media. The concept of digital watermarking came up while trying to solve the problems related to the management of intellectual property of multimedia data. To protect the multimedia content from being used without permission, both steganography and watermarking techniques are used to convey information by embedding it into the cover data. However, steganography typically is not robust against modification of the data, or have only limited robustness. Digital watermarking on the other hand should be robust against attempts to remove the hidden data. A popular application of watermarking is to give proof of ownership. It is obvious that for this application the digital watermarking techniques are needed that are especially robust against modification of the data, or have only limited robustness.

This book constitutes the thoroughly refereed post-workshop proceedings of the Third International Workshop on Information Hiding, IH '99, held in Guildford, Surrey, UK, August 24-26, 1999. The 23 revised full papers, including 4 poster presentations, presented together with 3 invited papers were carefully reviewed and selected from 69 submissions. The dominating topic, dealt with in various contexts, is watermarking. The papers are organized in sections on fundamentals of multimedia security, steganography and steganalysis, multimedia watermarking and security, pools on image, video, audio, and 3D object watermarking, medical watermarking, error detection (authentication) and concealment, fingerprinting, digital signature and digital right management.

Understanding the building blocks of content encryption in digital media and the techniques to practice in this well-contained guide. This book intends to provide a comprehensive overview on different aspects of mechanisms and techniques for information hiding. It is written for students, researchers, and professionals studying in the field of multimedia security and steganography. Multimedia security and steganography is especially relevant due to the global scale of digital multimedia and the rapid growth of the Internet. Digital watermarking technology can be used to guarantee authenticity and can be applied as proof that the content has not been altered since insertion. Updated techniques and advances in watermarking are explored in this new edition. The book is a comprehensive introduction to visual cryptography, digital watermarking and steganography in one book. Includes real-life examples and applications throughout to cover theoretical and practical concepts related to the implementation of all important concepts in MATLAB.

Information Hiding: Steganography and Watermarking - Attacks and Countermeasures deals with information hiding. With the proliferation of multimedia on the Internet, information hiding addresses two areas of concern: privacy of information from surveillance (steganography) and protection of intellectual property (watermarking). Steganography (literally, hidden writing) explores methods to hide the existence of hidden messages. These methods include invisible ink, microdot, digital signatures, covert channel, and spread spectrum communication. Digital watermarks represent a commercial application of steganography. Watermarks can be used for copyright protection, ownership or electronic rights management. The book covers motivation, history, materials, implementation, the fundamental principles, while developing the extensive advanced techniques and considering the essential frameworks for modeling watermarking systems, and the evaluation of watermarking techniques. Several robust algorithms are presented throughout to provide assistance and tools in understanding and implementing the advanced techniques. The book provides a comprehensive introduction to visual cryptography, digital watermarking and steganography in one book. Includes real-life examples and applications throughout to cover theoretical and practical concepts related to the implementation of all important concepts in MATLAB.

A comprehensive guide to the essential principles of image processing and pattern recognition Techniques and applications in the area of image processing and pattern recognition are growing at an unprecedented rate. Containing the latest state-of-the-art developments in the field, Image Processing and Pattern Recognition presents clear explanations of the fundamentals as well as the most recent applications. It explains the essential principles so readers will not only be able to easily implement the algorithms and techniques, but also understand the underlying mechanisms. The book provides a thorough introduction to the field and offers the latest information on a wide range of topics that are extremely useful for engineers, scientists, and students.

This book comprises selected papers of the International Conference on Signal Processing, Image Processing and Pattern Recognition, SIP 2011, held as Part of the Future Generation Information Technology Conference, FGIT 2011, in conjunction with DGC 2011, in conjunction with DGC 2011, Jeju Island, Korea, in December 2011. The papers presented were carefully reviewed and selected from numerous submissions and focus on the various aspects of signal processing, image processing and pattern recognition.

This book constitutes the refereed proceedings of the 8th International Workshop, WIDIN 2009, held in Guildford, Surrey, UK, August 24-26, 2009. The 23 revised full papers, including 4 poster presentations, presented together with 3 invited papers were carefully reviewed and selected from 69 submissions. The dominating topic, dealt with in various contexts, is watermarking. The papers are organized in sections on fundamentals of multimedia security, steganography and steganalysis, multimedia watermarking and security, pools on image, video, audio, and 3D object watermarking, medical watermarking, error detection (authentication) and concealment, fingerprinting, digital signature and digital right management.

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A comprehensive review of the most recent applications of intelligent multi-modal data processing. Intelligent Multi-Modal Data Processing contains a review of the most recent applications of data processing. The Editors and contributors - noted experts on the topic - offer a review of the new and challenging areas of multimedia data processing as well as state-of-the-art algorithms to solve the problems in an intelligent manner. The text provides a clear understanding of the real-life implementation of different statistical theories and explains how to implement various statistical theories. Intelligent Multi-Modal Data Processing is an authoritative guide for developing innovative research ideas for interdisciplinary research practices. Designed as a practical resource, the book contains tables to compare statistical analysis results of a novel technique to that of the state-of-the-art techniques and illustrations in the form of algorithms to establish a pre-processing and/or post-processing technique for model building. The book also contains images that show the efficiency of the algorithm on standard data set. This important book: Includes an in-depth analysis of the state-of-the-art applications of signal and data processing Contains contributions from noted experts in the field, Offers information on hybrid differential evolution for optimal multilevel image thresholding, Presents a fuzzy decision based multi-objective evolutionary method for video summarisation, Written for students of technology and management, computer scientists and professionals in information technology, Intelligent Multi-Modal Data Processing brings together in one volume the range of multi-modal data processing.