

Visual Cryptography and Secret Image Sharing

With rapid progress in Internet and digital imaging technology, there are more and more ways to easily create, publish, and distribute images. Considered the first book to focus on the relationship between digital imaging and privacy protection, Visual Cryptography and Secret Image Sharing is a complete introduction to novel security methods and sharing-control mechanisms used to protect against unauthorized data access and secure dissemination of sensitive information. Image data protection and image-based authentication techniques offer efficient solutions for controlling how private data and images are made available only to select people. Essential to the design of systems used to manage images that contain sensitive data—such as medical records, financial transactions, and electronic voting systems—the methods presented in this book are useful to counter traditional encryption techniques, which do not scale well and are less efficient when applied directly to image files. An exploration of the most prominent topics in digital imaging security, this book discusses:

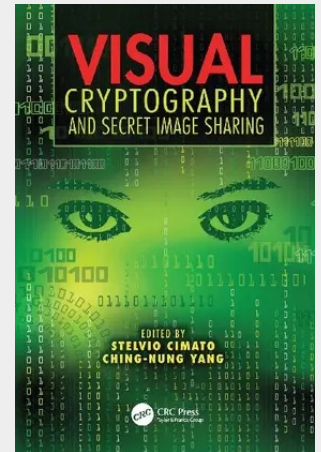
- Potential for sharing multiple secrets - Visual cryptography schemes—based either on the probabilistic reconstruction of the secret image, or on different logical operations for combining shared images
- Inclusion of pictures in the distributed shares - Contrast enhancement techniques - Color-image visual cryptography
- Cheating prevention - Alignment problems for image shares
- Steganography and authentication

In the continually evolving world of secure image sharing, a growing number of people are becoming involved as new applications and business models are being developed all the time. This contributed volume gives academicians, researchers, and professionals the insight of well-known experts on key concepts, issues, trends, and technologies in this emerging field.

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150,60 €

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Lieferfrist: bis zu 10 Tage

Artikelnummer: 9781138076044

Medium: Buch

ISBN: 978-1-138-07604-4

Verlag: CRC Press

Erscheinungstermin: 29.03.2017

Sprache(n): Englisch

Auflage: 1. Auflage 2017

Serie: Digital Imaging and Computer Vision

Produktform: Kartoniert

Gewicht: 1020 g

Seiten: 546

Format (B x H): 156 x 234 mm

