

1. Record Nr.	UNINA9910789483503321
Titolo	Visual cryptography and secret image sharing // edited by Stelvio Cimato, Ching-Nung Yang
Pubbl/distr/stampa	Boca Raton, Fla. : , : CRC Press, , 2012
ISBN	1-351-83354-5 1-315-21765-1 1-283-31163-1 9786613311634 1-4398-3722-8
Edizione	[1st edition]
Descrizione fisica	1 online resource (533 p.)
Collana	Digital imaging and computer vision
Classificazione	COM083000MAT003000TEC015000
Altri autori (Persone)	CimatoStelvio YangChing-Nung
Disciplina	005.8/2
Soggetti	Image processing - Security measures Data encryption (Computer science) Computer file sharing - Security measures Image files - Security measures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Dedication; Contents; List of Figures; List of Tables; Preface; Contributors; 1. Visual Cryptography from Halftone Error Diffusion; 2. Visual Cryptography for Color Images; 3. Visual Cryptography for Multiple Secrets; 4. Extended Visual Cryptography for Photograph Images; 5. Probabilistic Visual Cryptography Schemes; 6. XOR-Based Visual Cryptography; 7. Visual Cryptography and Random Grids; 8. Visual Cryptography and Contrast Bounds; 9. Visual Cryptography Schemes with Reversing; 10. Cheating Prevention in Visual Cryptography 11. Resolving the Alignment Problem in Visual Cryptography 12. Applications of Visual Cryptography; 13. Steganography in Halftone Images; 14. Image Secret Sharing; 15. Polynomial-Based Image Sharing; 16. Image Sharing with Steganography and Authentication; 17. Two-Decoding-Option Image Sharing Method

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--
