This monograph is based on the authors' extensive experience in the Clinical Endocrinology and Diagnostic Imaging Siemens AG and Schering AG for technical support. The results presented are based on investigations of 94 primary bone and soft tissue tumors and mimicking conditions by MRI. The major purpose of this monograph is intended for medical students, junior endocrinologists, diabetologists, radiologists and general practitioners interested in endocrinology, however, it can be useful also for doctors preparing for medical postgraduate certification in endocrinology and imaging methods as it undoubtedly provides valuable information.

High Quality Images - Colin Bendell 2016-11-03
High-quality images have an amazing power of attraction. Just add some stunning photos and graphics to your website or app and watch your user engagement and conversion numbers climb. It can be tricky, but with this practical guide, you’ll master the many facets of delivering high performance images on the internet—without adversely affecting site performance. You’ll learn the nuts and bolts of color theory, image formats, storage and management, operations delivery, browser and application behavior, the responsive web, and many other topics. Ideal for developers, this book also provides useful tips, tricks, and practical theory for processing and displaying powerful images that won’t slow down your online product. Explore digital image theory and the different formats available Dive into JPEGs, SVG and vector images, lossless compression, and other formats Use techniques for downloading and rendering images in a browser, and for loading images on mobile devices and cellular networks Examine specific rendering techniques, such as lazy loading, image processing, image consolidation, and responsive images Take responsive images to the next level by using content negotiation between browser and server with the Client Hints HTTP standard Learn how to operationalize your image workflow Contributors include Colin Bendell, Tim Kadlec, Yoav Weiss, Guy Podjarny, Nick Doyle, and Mike McCall from Akamai Technologies.

Optical Compressive Imaging - Adrian Stern 2016-11-17
This dedicated overview of optical compressive imaging addresses implementation aspects of the revolutionary theory of compressive sensing (CS) in the field of optical imaging and sensing. It overview provides the technological opportunities and challenges involved in optical design and implementation, and focuses on basic theory to optical architectures and systems for compressive imaging in various spectral regimes, spectral and hyperspectral imaging, polarimetric sensing, three-dimensional imaging, super-resolution imaging, lens-free, on-chip microscopy, and phase sensing and retrieval. The reader will gain a complete introduction to theory, experiment, and practical use for reducing hardware, shortening image scanning time, and improving image resolution as well as other performance parameters. Optics practitioners and optical system designers, electrical and optical engineers, mathematicians, and signal processing professionals will all find the book a unique trove of images
information and practical guidance. Delivers the first book on compressed sensing dealing with system development for a wide variety of optical imaging and sensing applications. Covers the fundamentals of CS theory, including noise and algorithms, as well as basic design approaches for data acquisition in optics. Addresses the challenges of implementing compressed sensing theory in the context of different optical imaging designs, from 3D imaging to tomography and microscopy. Provides an essential resource for the design of new and improved devices with improved image quality and shorter acquisition times. Adrian Stern, PhD, is associate professor and head of the Electro-
Optical Engineering Unit at Ben-Gurion University of the Negev, Israel. He is an elected Fellow of SPIE.

Photography, Essays & Images - Beaumont Newhall 1980 Brings to life the scientists, artists, philosophers, innovators, and entrepreneurs who developed the art and science of photography. Combinatorial Image Analysis - Valentin E. Brimkov 2017-05-15 This book constitutes the proceedings of the 18th International Workshop on Combinatorial Image Analysis, IWCGA 2017, held in Plovdiv, Bulgaria, in June 2017. The 27 revised full papers presented were carefully reviewed and selected from 47 submissions. The workshop is organized in topical sections of theoretical foundations and theory of applications, namely: discrete geometry and topology; tilings and patterns; grammars, models and other technical tools for image analysis; image segmentation, classification; reconstruction; compression; texture analysis; bioimaging.

Performing Image - Isobel Harbison 2019-04-09 An examination of how artists have combined performance and moving image for decades, anticipating our changing relation to images in the internet era. In Performing Image, Isobel Harbison examines how artists have combined performance and moving image in their work since the 1960s, and how this work anticipates our changing relations to images since the advent of smart phones and the spread of online prosumerism. Over this period, artists have used a variety of DIY modes of self-imaging and circulation—from home video to social media—suggesting how and why Western subjects might seek alternative platforms for self-expression and self-representation. In the course of her argument, Harbison offers close analyses of works by such artists as Robert Rauschenberg, Yvonne Rainer, Mark Leckey, Wu Tsang, and Martine Syms. Harbison argues that while we produce images, images also produce us—those that we take and share, those that we see and assimilate through mass media and social media, those that we encounter in museums and galleries. Although all the artists she examines express their relation to images uniquely, they also offer a vantage point on today's productive-consumptive image circuits in which billions of us are caught. This unregulated, all-encompassing image performativity, Harbison writes, puts us to work, for free, in the service of global corporate expansion. Harbison offers a three-part interpretive framework for understanding this new proximity to images as it is negotiated by these artworks, a detailed outline of a set of connected practices—and a declaration of the value of art in an economy of attention and a crisis of representation.


Teaching Atlas of Spine Imaging - Ruth G. Ramsey 1999 Professor Ramsey undertook a massive project and brought it to a magnificent conclusion. The MR images are of high quality and [the] well-written commentary is easy to understand. Well worth the investment...Radiologic Technology I strongly recommend this book to individuals who are required to interpret MRIs of the vertebral column and the spinal cord...great practical use to clinicians...very absorbing; it was easy to read an entire section in one sitting.-The Journal of Bone and Joint Surgery The author has met her purpose in producing a user-friendly spinal imaging atlas that will aid clinicians caring for patients with spine disease.-Radiology Containing nearly 1,000 illustrations and a broad array of case studies, this comprehensive, practical reference simulates an actual clinical setting in which readers view images of a specific abnormality and then see the correct differential diagnosis. The book contains hundreds of instructive cases, and is ideal for teaching and self-assessment. Practical and complete, the book offers a broad array of classic and unusual cases for residents and practicing surgeons. This easy-to-use resource is the perfect tool for qualifying and CAQ exam preparation.

Front-End Vision and Multi-Scale Image Analysis - Burt M. Haar Romency 2008-10-24 Many approaches have been proposed to solve the problem of finding the optic flow field of an image sequence. Three major classes of optic flow computation techniques have been distinguished (Adrian Beauchemin and Barron [Adrian Beauchemin1995]): gradient based (or differential) methods; phase based (or frequency domain) methods; correlation based (or area) methods; feature point (or sparse data) tracking methods; In this chapter we compute the optic flow as a dense optic flow field with a multi scale differential method. The method, originally proposed by Florack and Nielsen [Florack1998a] is known as the Multiscale Optic Flow Constraint Equation (MOFCE). This is a scale space version of the well known computer vision implementation of the optic flow constraint equation, as originally proposed by Horn and Schunck [Horn1981]. This scale space variation, as usual, consists of the introduction of the aperture of the observation in the process. The application to stereo has been described by Maas et al. [Maas 1995a, Maas 1996a]. Of course, difficulties arise when structure emerges or disappears, such as with occlusion, cloud formation etc. Then knowledge is needed both about the processes and objects involved. In this chapter we focus on the scale space approach to the local measurement of optic flow, as we may expect the visual front end to do. 17. 2 Motion detection with pairs of receptive fields As a biologically motivated start, we begin with discussing some neurophysiological findings in the visual system with respect to motion detection.

The Image Processing Handbook - John C. Russ 2018-09-03 Consistently rated as the best overall introduction to computer-based image processing, The Image Processing Handbook covers two-dimensional (2D) and three-dimensional (3D) imaging techniques, image printing and storage methods, image processing algorithms, image and feature measurement, quantitative image measurement analysis, and more. Incorporating image processing and analysis examples at all scales, from nano- to astro-, this Seventh Edition: Features a greater range of computationally intensive algorithms than previous versions Provides better organization, more quantitative results, and new material on recent developments Includes completely rewritten chapters on 3D imaging and a thoroughly revamped chapter on statistical analysis Contains more than 1,700 references to theory, methods, and applications in a wide variety of disciplines Presents 500+ entirely new figures and images, with more than two-thirds appearing in color The Image Processing Handbook, Seventh Edition delivers an accessible and up-to-date treatment of image processing, offering broad coverage and comparison of algorithms, approaches, and outcomes.

Intelligent Image Processing in Prolog - Bruce G. Batchelor 2012-12-06 After a slow and somewhat tentative beginning, machine vision systems are now finding widespread use in industry. So far, there have been four clearly discernible phases in their development, based upon the types of images processed and how that processing is performed: (1) Binary (two level) images, processing in software (2) Grey-scale images, processing in software (3) Binary or grey-scale images processed in fast, special-purpose hardware (4) Coloured/multi-spectral images Third-generation vision systems are now commonplace, although a large number of binary and software-based grey-scale processing systems are still being sold. At
the moment, colour image processing is commercially much less significant than the other three and this situation may well remain for some time, since many industrial artifacts are nearly monochrome and the use of colour increases the cost of the equipment significantly. A great deal of colour image processing is a straightforward extension of standard grey-scale methods. Industrial applications of machine vision systems can also be sub divided, this time into two main areas, which have largely retained distinct identities: (i) Automated Visual Inspection (A VI) (ii) Robot Vision (RV) This book is about a fifth generation of industrial vision systems, in which this distinction, based on applications, is blurred and the processing is marked by being much smarter (i.e. more "intelligent") than in the other four generations.

**Images and Artefacts of the Ancient World** - British Academy 2005-05-26 Scientific and technical leaps forward in recent years have introduced a new dimension into the study of objects from the ancient world. In 2000 a major exhibition was held at the British Museum in London in the aim of debating the potential of this image enhancement amongst archaeologists, historians and scientists.

**About to Die** - Barbie Zelizer 2010-12-01
Due to its ability to freeze a moment in time, the photo is a uniquely powerful device for ordering and understanding the world. But when an image depicts complex, ambiguous, or controversial events—terrorist attacks, wars, political assassinations—its ability to influence perception can prove deeply unsettling. Are we really seeing the world "as it is" or is the image a fabrication or projection? How does a photo's content and form shape our perception of news events? What does it contribute to historical memory? About to Die focuses on one emotionally charged category of news photograph—depictions of individuals who are facing imminent death—as a prism for addressing such vital questions. Tracking events as wide-ranging as the 1906 San Francisco Earthquake, the Holocaust, the Vietnam War, and 9/11, Barbie Zelizer demonstrates that modes of journalistic depiction and the power of the image are immense cultural forces that are still far from understood. Through a survey of a century of photojournalism, including close analysis of over sixty photos, About to Die provides a framework and vocabulary for understanding the news imagery that so profoundly shapes our view of the world.

**Image and Memory** - Wendy Watriss 1998
Fotofest 1992, a major festival of international photography, brought Latin American photography into focus for a wide audience. Offering a diverse selection of photographers, countries, artistic movements, and subject matter, the show revealed a photographic tradition rich in history and creativity. Drawing from the more than 1,000 images exhibited by Fotofest, this book documents the work of fifty-two photographers from ten countries. The photographs range from the opening of the Brazilian frontier in the 1880s to a secret archive of documentary images from El Salvador's recent civil war to works of specifically aesthetic intent. Many of the photographs appear here in print for the first time. Watriss's opening essay provides the curatorial overview for the book. Lois Zamora examines the roots of visual image-making in Latin American cultures. Boris Kossoy addresses the history of Latin American photography through the nineteenth century, while Fernando Castro covers the contemporary scene. With its compelling images and English-Spanish text, this book will serve as a benchmark for future studies of photography in Latin America.

**Images People Google** - Richard Stanley 2020-07-24
To illustrate a point in conversation, I often grab my iPhone, tap in a descriptor and choose "Image". In a flash, images on my screen include the object of my curiosity. How well I'm looking for is displayed, in a narrated list created by an algorithm. So is its own order, is its own delight. I'm a born collector, and the digital universe accommodates excess beautifully. I can make photographs profugally--without regard for the expenses of wet photography. Making a digital image, its review and storage are nearly free. At last, I can collect images with abandon. Sometimes, the array called up by my image searches is richer than any flea market's nearly free. At last, I can collect images with abandon. Sometimes, the array called up by my image searches is richer than any flea market's nearly free.

**Unforgettable** - Peter Davenport 2003-06
The Hindenberg disaster. Andy Warhol's Campbells Soup Can. Marilyn Monroe standing over the subway grating. The first step onto the Moon. These powerful imagerable images, as they are indelible imprints in our collective mind's eye. This mesmerizing little volume celebrates these and hundreds of other artistic and cultural touchstones without actually reproducing them. Each page is devoted to a single image, with a caption providing its title or description and the date that it was created. Just that information evokes the image vividly. The page itself is blank.

Dorothea Lange's Migrant Mother. The album cover of Sgt. Pepper. A man facing a row of tanks in Tiananmen Square. Arranged in chronological order from 1900 to the present, these images are a testament to the enduring impact of photography, art, and the images as well as to the photographic precision of our shared memory bank. It's also a great pop quiz on cultural literacy.

**The Uses of Images** - E.H. Gombrich 2000-01-03
A study of the social functions of images, and their evolution.

**Handbook of Mathematical Models and Algorithms in Computer Vision and Imaging** - Ke Chen 2023-02-24
This handbook gathers together the state of the art on mathematical...
models and algorithms for imaging and vision. Its emphasis lies on rigorous mathematical methods, which represent the optimal solutions to a class of imaging and vision problems, and on effective algorithms, which are necessary for the methods to be translated to practical use in various applications. Viewing discrete images as data sampled from functional surfaces enables the use of advanced tools from calculus, functions and calculus of variations, and nonlinear optimization, and provides the basis of high-resolution imaging through geometry and variational models. Besides, optimization naturally connects traditional model-driven approaches to the emerging data-driven approaches of machine and deep learning. No other framework can provide comparable accuracy and precision to imaging and vision. Written by leading researchers in imaging and vision, the chapters in this handbook all start with gentle introductions, which make this work accessible to graduate students. For newcomers to the field, the book provides a comprehensive and convenient road map to the cutting edge of research and to the core ideas involved in tackling new and challenging tasks. For researchers, exposure to the state of the art of research works leads to an overall view of the entire field so as to guide new research directions and avoid pitfalls in moving the field forward and looking into the next decades of imaging and information services. This work can greatly benefit graduate students, researchers, and practitioners in imaging and vision; applied mathematicians; medical imagers; engineers; and computer scientists.

Remote Sensing Image Fusion - Christine Pohl 2016-10-03
Remote Sensing Image Fusion: A Practical Guide gives an introduction to remote sensing fusion, providing crucial theories and applications. It describes data selection, application requirements and the choice of a suitable image fusion technique. It comprises a diverse selection of successful image fusion cases that are relevant to other users and other areas of interest around the world. The book helps newcomers to obtain a quick start into the practical value and benefits of multi-sensor image fusion. Experts will find this book useful to obtain an overview of the state of the art and understand current constraints that need to be solved in future research efforts. For industry professionals the book can be a great introduction and basis to understand how to implement the different remote sensing image exploitation and the development of the fusion of multi-data sets. It also provides an overview of the different methods and techniques presented. The book includes essential research and teaching material for digital signal processing theory and algorithms to seismic data. Includes ready-to-run MATLAB algorithms for most of the techniques presented. The book includes include many important practical examples and ready-to-run MATLAB code. The book also provides a comprehensive overview of the state of the art and proposes future research directions in range recognition. The report, written by the editors, also appears in the book. It summarizes the state of the art of research works and provides practical solutions to imaging and vision software development.

By guest

Analyses and Interpretations of Range Images - Ramesh C. Jain 1990
Computer vision researchers have been frustrated in their attempts to derive computationally feasible vision algorithms from second-order two-dimensional intensity images. Research on "shape from texture", "shape from shading", and "shape from focus" is still in a laboratory stage and had not seen much use in commercial machine vision systems. A range image or a depth map contains explicit information about the distance from the sensor to the object surfaces within the field of view in the scene. Information about "surface geometry" which is important for, say, three-dimensional object recognition is more easily extracted from 2D range images than from 2D intensity images. As a result, both active sensors such as laser range finders and passive techniques such as multi-camera stereo vision are being increasingly utilized by vision researchers to solve a variety of problems. This book contains the results of two distinguished computer vision researchers covering the following areas: Overview of 3D Vision Range Sensing Geometric Processing Object Recognition Navigation Inspection Multisensor Fusion A workshop on 3D vision and range sensing.

By guest

Introduction to Image Processing - Andre Marioni 1991-01-01
The past, the present... and the future It is possible to take the view that ever since it began, the "ancient" branch of physics known as Optics has been concerned with process ing images. But since the Nineteen Thirties, increasingly close ties have been forming between Optics, which until then had been largely based on instruments, and the sciences of communication and information arising out of mathematics and electronics. Such developments follow naturally, since communication systems and image-forming systems are all designed to receive or transmit information. Further more the same mathematical forms are used for describing the beha viour of electrical and optical systems. It is a question of systems theory, particularly linear systems, and of Fourier's analysis methods, which together constitute an important part of Signal Theory. In the case of communication systems carrying signals of an electrical nature, information is time-related or temporal. Transmitted signals are one-dimensional and functions of a single variable, time. In the case of optical systems information is spatial in nature. Signals are distributions of light intensity in space. In general they are treated as two-dimensional signals, being functions of two spatial variables written as x and y. In the early Fifties the way forward became clearer still when some scientists at the Institut d'Optique in Paris began using optical filtering techniques in coherent light in order to enhance the quality of photographs.

Seismic Data Interpretation using Digital Image Processing - Abdulatif A. Al-Shabib 2017-06-02
Bridging the gap between modern image processing practices by the scientific community at large and the world of geology and reflection seismology This book covers the basics of seismic exploration, with a focus on image processing techniques as applied to seismic data. Discussions of theories, concepts, and algorithms are followed by synthetic and real data examples to provide the reader with a practical understanding of the image processing technique and to enable the reader to apply these techniques to seismic data. The book will also help readers interested in devising new algorithms, software and hardware for interpreting seismic data. Key Features: Provides an easy-to-understand seismic processing and interpretation techniques from the point of view of a digital signal processor. Presents image processing concepts that may be readily applied directly to seismic data. Includes ready-to-run MATLAB algorithms for most of the techniques presented. The book includes extensive research and teaching material for digital signal and image processing individuals interested in learning seismic data interpretation from the point of view of digital signal processing. It is an ideal resource for students, professors and working professionals who are interested in learning about the application of digital signal processing theory and algorithms to seismic data.

Islam and the Heroic Image - John Renard 1999
Throughout the world and over many centuries, the cultures in which Islam has been a major presence have created stories in word and picture to celebrate the men and women who best exemplify each culture's aspirations. This is the story of how those heroic figures have both shaped and been shaped by the religious tradition called Islam. Recent Trends in Image Processing and Pattern Recognition - K. C. Santosh 2019-07-15
This three-book set constitutes the refereed proceedings of the Second International Conference on Recent Trends in Image Processing and Pattern Recognition (RTIPPR 2018), held in Solapur, India, in December 2018. The 173 revised full papers presented were carefully reviewed and selected from 374 submissions. The papers are organized in topical sections in the three volumes. Part I: computer vision and pattern recognition; machine learning and applications; and image processing. Part II: healthcare and medical imaging; biometrics and applications. Part III: document image analysis; image analysis in agriculture; and data mining, information retrieval and applications.

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image sensing, processing, interpretation, and applications. The book also contains an extensive, up-to-date bibliography on the above topics. This book provides a unique perspective on the problem of three-dimensional sensing and processing; it is the only comprehensive collection of papers devoted to range images. Both academic researchers interested in research issues in 3D vision and industrial engineers in search of solutions to particular problems will find this a useful reference book.

**RGB-D Image Analysis and Processing** - Paul L. Rosin 2019-10-26
This book focuses on the fundamentals and recent advances in RGB-D imaging as well as covering a range of RGB-D applications. The topics covered include: data acquisition, data quality assessment, filling holes, 3D reconstruction, SLAM, multiple depth camera systems, segmentation, object detection, salience detection, pose estimation, geometric modelling, fall detection, autonomous driving, motor rehabilitation therapy, people counting and cognitive service robots. The availability of cheap RGB-D sensors has led to an explosion over the last five years in the capture and application of colour plus depth data. The addition of depth data to regular RGB images vastly increases the range of applications, and has resulted in a demand for robust and real-time processing of RGB-D data. There remain many technical challenges, and RGB-D image processing is an ongoing research area. This book covers the full state of the art, and consists of a series of chapters by internationally renowned experts in the field. Each chapter is written so as to provide a detailed overview of that topic. RGB-D Image Analysis and Processing will enable both students and professional developers alike to quickly get up to speed with contemporary techniques, and apply RGB-D imaging in their own projects.

**Medical Image Computing and Computer Assisted Intervention - MICCAI 2020** - Anne L. Martel 2020-10-02
The seven-volume set LNCS 12261, 12262, 12263, 12264, 12265, 12266, and 12267 constitutes the refereed proceedings of the 23rd International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2020, held in Lima, Peru, in October 2020. The conference was held virtually due to the COVID-19 pandemic. The 542 revised full papers presented were carefully reviewed and selected from 1809 submissions in a double-blind review process. The papers are organized in the following topical sections: Part I: machine learning methodologies Part II: image reconstruction; prediction and diagnosis; cross-domain methods and reconstruction; domain adaptation; machine learning applications; generative adversarial networks Part III: CAI applications; image registration; instrumentation and surgical phase detection; navigation and visualization; ultrasound imaging; video image analysis Part IV: segmentation; shape models and landmark detection Part V: biological, optical, microscopic imaging; cell segmentation and stain normalization; histopathology image analysis; ophthalmology Part VI: angiography and vessel analysis; breast imaging; colonoscopy; dermatology; fetal imaging; heart and lung imaging; musculoskeletal imaging Part VI: brain development and atlases; DWI and tractography; functional brain networks; neuroimaging; positron emission tomography

This issue of MRI Clinics of North America focuses on MR Imaging of the Pancreas, and is edited by Drs. Kumar Sandrasegaran and Dushyant V. Sahani. Articles will include: Advanced MRI Techniques for Pancreas Imaging; PET/MRI for Pancreatic Diseases; The Role of MRI in Pancreas Cancer; Genetics of Pancreatic Neoplasms and Role of Screening; Cystic Pancreatic Tumors; Rare Pancreatic Tumors; Autoimmune Pancreatitis; Routine MRI for Pancreas; Neuroendocrine Tumors; Acute Pancreatitis: How Can MRI Help; Chronic Pancreatitis: What the Clinician Wants to Know from MRI; and more!

**House of Images** - Mig Alvarez Enriquez 1983