



Practical Image and Video Processing Using MATLAB

By Oge Marques



Download



Read Online

Practical Image and Video Processing Using MATLAB By Oge Marques

Up-to-date, technically accurate coverage of essential topics in image and video processing

This is the first book to combine image and video processing with a practical MATLAB®-oriented approach in order to demonstrate the most important image and video techniques and algorithms. Utilizing minimal math, the contents are presented in a clear, objective manner, emphasizing and encouraging experimentation.

The book has been organized into two parts. Part I: Image Processing begins with an overview of the field, then introduces the fundamental concepts, notation, and terminology associated with image representation and basic image processing operations. Next, it discusses MATLAB® and its Image Processing Toolbox with the start of a series of chapters with hands-on activities and step-by-step tutorials. These chapters cover image acquisition and digitization; arithmetic, logic, and geometric operations; point-based, histogram-based, and neighborhood-based image enhancement techniques; the Fourier Transform and relevant frequency-domain image filtering techniques; image restoration; mathematical morphology; edge detection techniques; image segmentation; image compression and coding; and feature extraction and representation.

Part II: Video Processing presents the main concepts and terminology associated with analog video signals and systems, as well as digital video formats and standards. It then describes the technically involved problem of standards conversion, discusses motion estimation and compensation techniques, shows how video sequences can be filtered, and concludes with an example of a solution to object detection and tracking in video sequences using MATLAB®.

Extra features of this book include:

- More than 30 MATLAB® tutorials, which consist of step-by-step guides to exploring image and video processing techniques using MATLAB®
- Chapters supported by figures, examples, illustrative problems, and exercises
- Useful websites and an extensive list of bibliographical references

This accessible text is ideal for upper-level undergraduate and graduate students in digital image and video processing courses, as well as for engineers,

researchers, software developers, practitioners, and anyone who wishes to learn about these increasingly popular topics on their own.

Supplemental resources for readers and instructors can be found at <http://www.ogemarques.com>

 [Download Practical Image and Video Processing Using MATLAB ...pdf](#)

 [Read Online Practical Image and Video Processing Using MATLA ...pdf](#)

Practical Image and Video Processing Using MATLAB

By Oge Marques

Practical Image and Video Processing Using MATLAB By Oge Marques

Up-to-date, technically accurate coverage of essential topics in image and video processing

This is the first book to combine image and video processing with a practical MATLAB®-oriented approach in order to demonstrate the most important image and video techniques and algorithms. Utilizing minimal math, the contents are presented in a clear, objective manner, emphasizing and encouraging experimentation.

The book has been organized into two parts. Part I: Image Processing begins with an overview of the field, then introduces the fundamental concepts, notation, and terminology associated with image representation and basic image processing operations. Next, it discusses MATLAB® and its Image Processing Toolbox with the start of a series of chapters with hands-on activities and step-by-step tutorials. These chapters cover image acquisition and digitization; arithmetic, logic, and geometric operations; point-based, histogram-based, and neighborhood-based image enhancement techniques; the Fourier Transform and relevant frequency-domain image filtering techniques; image restoration; mathematical morphology; edge detection techniques; image segmentation; image compression and coding; and feature extraction and representation.

Part II: Video Processing presents the main concepts and terminology associated with analog video signals and systems, as well as digital video formats and standards. It then describes the technically involved problem of standards conversion, discusses motion estimation and compensation techniques, shows how video sequences can be filtered, and concludes with an example of a solution to object detection and tracking in video sequences using MATLAB®.

Extra features of this book include:

- More than 30 MATLAB® tutorials, which consist of step-by-step guides to exploring image and video processing techniques using MATLAB®
- Chapters supported by figures, examples, illustrative problems, and exercises
- Useful websites and an extensive list of bibliographical references

This accessible text is ideal for upper-level undergraduate and graduate students in digital image and video processing courses, as well as for engineers, researchers, software developers, practitioners, and anyone who wishes to learn about these increasingly popular topics on their own.

Supplemental resources for readers and instructors can be found at <http://www.ogemarques.com>

Practical Image and Video Processing Using MATLAB By Oge Marques Bibliography

- Sales Rank: #1623880 in Books
- Published on: 2011-09-21
- Original language: English

- Number of items: 1
- Dimensions: 9.71" h x 1.20" w x 6.40" l, 2.65 pounds
- Binding: Hardcover
- 696 pages

 [Download Practical Image and Video Processing Using MATLAB ...pdf](#)

 [Read Online Practical Image and Video Processing Using MATLA ...pdf](#)

Download and Read Free Online Practical Image and Video Processing Using MATLAB By Oge Marques

Editorial Review

About the Author

Oge Marques, PhD, is Associate Professor in the Department of Computer & Electrical Engineering and Computer Science at Florida Atlantic University. He has been teaching and doing research on image and video processing for more than twenty years, in seven different countries. Dr. Marques is the coauthor of Processamento Digital de Imagens and Content-Based Image and Video Retrieval and was editor-in-chief of the Handbook of Video Databases, a comprehensive work with contributions from more than 100 world experts in the field. He is a Senior Member of both the IEEE and the ACM.

Users Review

From reader reviews:

Ryan Calhoun:

Book is written, printed, or outlined for everything. You can recognize everything you want by a e-book. Book has a different type. We all know that that book is important thing to bring us around the world. Close to that you can your reading ability was fluently. A e-book Practical Image and Video Processing Using MATLAB will make you to end up being smarter. You can feel far more confidence if you can know about every little thing. But some of you think that will open or reading the book make you bored. It is far from make you fun. Why they might be thought like that? Have you searching for best book or ideal book with you?

Clair Lemanski:

Now a day people who Living in the era just where everything reachable by connect to the internet and the resources in it can be true or not involve people to be aware of each facts they get. How many people to be smart in getting any information nowadays? Of course the answer then is reading a book. Reading through a book can help people out of this uncertainty Information specifically this Practical Image and Video Processing Using MATLAB book as this book offers you rich details and knowledge. Of course the info in this book hundred per cent guarantees there is no doubt in it you know.

Kevin Lemon:

Is it you who having spare time after that spend it whole day simply by watching television programs or just laying on the bed? Do you need something totally new? This Practical Image and Video Processing Using MATLAB can be the response, oh how comes? A book you know. You are therefore out of date, spending your spare time by reading in this fresh era is common not a geek activity. So what these books have than the others?

Dona Cole:

You can obtain this Practical Image and Video Processing Using MATLAB by check out the bookstore or Mall. Simply viewing or reviewing it could to be your solve issue if you get difficulties on your knowledge. Kinds of this e-book are various. Not only simply by written or printed but can you enjoy this book by e-book. In the modern era such as now, you just looking of your mobile phone and searching what your problem. Right now, choose your ways to get more information about your e-book. It is most important to arrange yourself to make your knowledge are still revise. Let's try to choose right ways for you.

Download and Read Online Practical Image and Video Processing Using MATLAB By Oge Marques #S6OPK2MZG7A

Read Practical Image and Video Processing Using MATLAB By Oge Marques for online ebook

Practical Image and Video Processing Using MATLAB By Oge Marques Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Practical Image and Video Processing Using MATLAB By Oge Marques books to read online.

Online Practical Image and Video Processing Using MATLAB By Oge Marques ebook PDF download

Practical Image and Video Processing Using MATLAB By Oge Marques Doc

Practical Image and Video Processing Using MATLAB By Oge Marques Mobipocket

Practical Image and Video Processing Using MATLAB By Oge Marques EPub