



Still Image and Video Compression with MATLAB

By K. S. Thyagarajan

Download now

Read Online ➔

Still Image and Video Compression with MATLAB By K. S. Thyagarajan

This book describes the principles of image and video compression techniques and introduces current and popular compression standards, such as the MPEG series. Derivations of relevant compression algorithms are developed in an easy-to-follow fashion. Numerous examples are provided in each chapter to illustrate the concepts.

↓ [Download Still Image and Video Compression with MATLAB ...pdf](#)

📄 [Read Online Still Image and Video Compression with MATLAB ...pdf](#)

Still Image and Video Compression with MATLAB

By K. S. Thyagarajan

Still Image and Video Compression with MATLAB By K. S. Thyagarajan

This book describes the principles of image and video compression techniques and introduces current and popular compression standards, such as the MPEG series. Derivations of relevant compression algorithms are developed in an easy-to-follow fashion. Numerous examples are provided in each chapter to illustrate the concepts.

Still Image and Video Compression with MATLAB By K. S. Thyagarajan Bibliography

- Sales Rank: #2381740 in Books
- Published on: 2011-01-11
- Original language: English
- Number of items: 1
- Dimensions: 9.55" h x 1.10" w x 6.30" l, 1.76 pounds
- Binding: Hardcover
- 428 pages

 [Download Still Image and Video Compression with MATLAB ...pdf](#)

 [Read Online Still Image and Video Compression with MATLAB ...pdf](#)

Download and Read Free Online Still Image and Video Compression with MATLAB By K. S. Thyagarajan

Editorial Review

From the Back Cover

The Most Comprehensive Coverage of the Theory and Practice of Image and Video Compression

This authoritative text enables readers to grasp the basic principles of still image and video compression methods as well as the current and popular compression standards, such as JPEG, MPEG, and Advanced Video Coding (AVC). Written in clear language and with minimal mathematical derivations, it allows readers to gain practical experience in simulating actual compression systems via the globally popular MATLAB software platform.

The book first introduces qualitatively the plethora of image compression methods available followed by image acquisition techniques, illustrating the design of uniform and non-uniform quantizers. Next, various image transforms such as the discrete cosine (dct) and discrete wavelet (dwt) are explained. Predictive coding—a core ingredient in various compression standards—is reviewed, along with lossless compression methods. Then follow chapters on still image compression schemes using DCT and wavelets (where JPEG and JPEG2000 standards for still image compression are described) and video coding principles. Finally, the book explains video compression standards such as MPEG-1, 2, and 4 as well as H.264 (AVC), and covers video compression in a wireless environment.

Each chapter contains problems of varying difficulty—both analytical and software-oriented—and powerful simulation examples using MATLAB code to provide hands-on experience in applying various compression techniques. The code is simple enough to be easily modified to suit a reader's particular application. Many examples are accompanied by real-world pictures that illustrate the specific effect of a compression scheme. These unique features make this comprehensive resource an ideal textbook for senior and first-year graduate students in courses in image processing and compression in electrical engineering and computer science. It is also a concise hands-on reference for professionals and practicing engineers.

About the Author

K.S. Thyagarajan is Chief Scientist at Micro USA, Inc., where he has developed an extensive suite of image processing, detection, and classification algorithms for the detection of very low contrast targets underwater in littoral waters and open oceans. He is an Emeritus Professor in the Department of Electrical and Computer Engineering at San Diego State University, and has extensive academic and industrial experience in researching and developing video compression systems. Dr. Thyagarajan's expertise lies in signal, image processing, image and video compression, pattern recognition, and communications. He holds several patents in video compression.

Users Review

From reader reviews:

Will Guertin:

Have you spare time for any day? What do you do when you have much more or little spare time? Yeah, you can choose the suitable activity for spend your time. Any person spent their own spare time to take a stroll, shopping, or went to the particular Mall. How about open or read a book titled Still Image and Video

Compression with MATLAB? Maybe it is to get best activity for you. You understand beside you can spend your time with the favorite's book, you can smarter than before. Do you agree with the opinion or you have different opinion?

Amelia Gallup:

What do you think about book? It is just for students as they are still students or it for all people in the world, the particular best subject for that? Only you can be answered for that issue above. Every person has different personality and hobby per other. Don't to be compelled someone or something that they don't desire do that. You must know how great and important the book Still Image and Video Compression with MATLAB. All type of book is it possible to see on many options. You can look for the internet solutions or other social media.

Willie Collier:

Nowadays reading books become more than want or need but also work as a life style. This reading habit give you lot of advantages. The advantages you got of course the knowledge the rest of the information inside the book which improve your knowledge and information. The details you get based on what kind of book you read, if you want drive more knowledge just go with knowledge books but if you want feel happy read one along with theme for entertaining for instance comic or novel. The Still Image and Video Compression with MATLAB is kind of guide which is giving the reader unpredictable experience.

Christopher Gobert:

Reading can called mind hangout, why? Because when you find yourself reading a book especially book entitled Still Image and Video Compression with MATLAB the mind will drift away trough every dimension, wandering in every aspect that maybe unknown for but surely might be your mind friends. Imaging each word written in a e-book then become one form conclusion and explanation which maybe you never get just before. The Still Image and Video Compression with MATLAB giving you an additional experience more than blown away your mind but also giving you useful details for your better life in this particular era. So now let us teach you the relaxing pattern is your body and mind will be pleased when you are finished reading it, like winning a game. Do you want to try this extraordinary investing spare time activity?

Download and Read Online Still Image and Video Compression with MATLAB By K. S. Thyagarajan #H4NG5F7O69X

Read Still Image and Video Compression with MATLAB By K. S. Thyagarajan for online ebook

Still Image and Video Compression with MATLAB By K. S. Thyagarajan 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 Still Image and Video Compression with MATLAB By K. S. Thyagarajan books to read online.

Online Still Image and Video Compression with MATLAB By K. S. Thyagarajan ebook PDF download

Still Image and Video Compression with MATLAB By K. S. Thyagarajan Doc

Still Image and Video Compression with MATLAB By K. S. Thyagarajan Mobipocket

Still Image and Video Compression with MATLAB By K. S. Thyagarajan EPub