

Character Recognition Using Matlab's Neural Network Toolbox

Kauleshwar Prasad, Devvrat C. Nigam, Ashmika Lakhotiya and Dheeren Umre

B.I.T Durg, India

Kauleshwarprasad2gmail.com, devnigam24@gmail.com, ashmika22@gmail.com,
ud2k81@gmail.com

Abstract

Recognition of Handwritten text has been one of the active and challenging areas of research in the field of image processing and pattern recognition. It has numerous applications which include, reading aid for blind, bank cheques and conversion of any hand written document into structural text form. In this paper we focus on recognition of English alphabet in a given scanned text document with the help of Neural Networks. Using Matlab Neural Network toolbox, we tried to recognize handwritten characters by projecting them on different sized grids. The first step is image acquisition which acquires the scanned image followed by noise filtering, smoothing and normalization of scanned image, rendering image suitable for segmentation where image is decomposed into sub images. Feature Extraction improves recognition rate and misclassification. We use character extraction and edge detection algorithm for training the neural network to classify and recognize the handwritten characters.

Keywords: Character Recognition, Neural Network, Character Extraction algorithm, Edge Detection algorithm, Image acquisition

1. Introduction

Handwriting recognition has been one of the most fascinating and challenging research areas in field of image processing and pattern recognition in the recent years [1]. It contributes immensely to the advancement of automation process and improves the interface between man and machine in numerous applications. In general, handwriting recognition is classified into two types as off-line and on-line handwriting recognition methods. The on-line methods have been shown to be superior to their off-line counter parts in recognizing handwritten characters due to the temporal information available with the former. However, in the off-line systems, comparably high recognition accuracy levels [5].

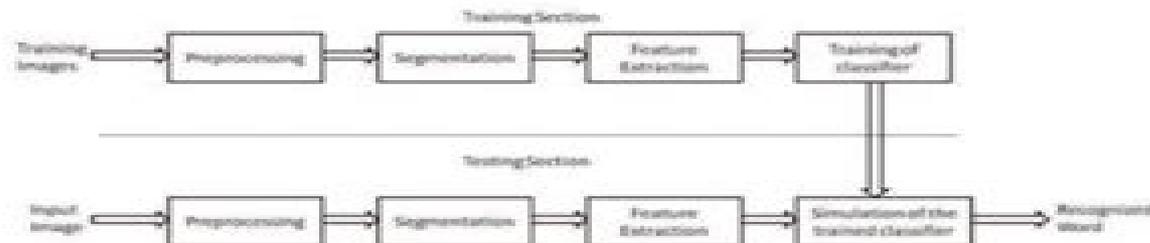


Figure 1. Generic Character Recognition Model

Character Recognition Using Matlab S Neural Network Toolbox

Christian Eitzinger



Character Recognition Using Matlab S Neural Network Toolbox:

Optical Character Recognition Systems for Different Languages with Soft Computing Arindam Chaudhuri, Krupa Mandaviya, Pratixa Badelia, Soumya K Ghosh, 2016-12-23 The book offers a comprehensive survey of soft computing models for optical character recognition systems The various techniques including fuzzy and rough sets artificial neural networks and genetic algorithms are tested using real texts written in different languages such as English French German Latin Hindi and Gujrati which have been extracted by publicly available datasets The simulation studies which are reported in details here show that soft computing based modeling of OCR systems performs consistently better than traditional models Mainly intended as state of the art survey for postgraduates and researchers in pattern recognition optical character recognition and soft computing this book will be useful for professionals in computer vision and image processing alike dealing with different issues related to optical character recognition

International Conference on Mobile Computing and Sustainable Informatics Jennifer S. Raj, 2020-11-30 Sustainability and mobile computing embraces a wide range of Information and Communication Technologies ICT in recent times This book focuses more on the recent research and development works in almost all the facets of sustainable ubiquitous computing and communication paradigm The recent research efforts on this evolving paradigm help to advance the technologies for next generation where socio economic growth and sustainability poses significant challenges to the computing and communication infrastructures The main purpose of this book is to promote the technical advances and impacts of sustainability and mobile computing to the informatics research The key strands of this book include green computing predictive models mobility data analytics mobile computing optimization Quality of Service QoS new communicating and computing frameworks human computer interaction Artificial Intelligence AI communication networks risk management Ubiquitous computing robotics smart city and applications The book has also addressed myriad of sustainability challenges in various computing and information processing infrastructures

Advances in System Optimization and Control Sri Niwas Singh, Fushuan Wen, Monika Jain, 2018-06-08 This book comprises select proceedings of the International Conference on Advancement in Energy Drives and Control It covers frontier topics in optimization and control It covers applications of optimization processes in areas such as computer architecture communication systems system optimization signal processing fluid dynamics and process control This book is of use to researchers professionals and students from across engineering disciplines

Soft Computing: Theories and Applications Millie Pant, Kanad Ray, Tarun K. Sharma, Sanyog Rawat, Anirban Bandyopadhyay, 2017-11-23 This book focuses on soft computing and its applications to solve real life problems occurring in different domains ranging from medical and health care supply chain management and image processing to cryptanalysis It presents the proceedings of International Conference on Soft Computing Theories and Applications SoCTA 2016 offering significant insights into soft computing for teachers and researchers and inspiring more and more researchers to work in the field of soft computing The term soft

computing represents an umbrella term for computational techniques like fuzzy logic neural networks and nature inspired algorithms In the past few decades there has been an exponential rise in the application of soft computing techniques for solving complex and intricate problems arising in different spheres of life The versatility of these techniques has made them a favorite among scientists and researchers working in diverse areas SoCTA is the first international conference being organized at Amity University Rajasthan AUR Jaipur The objective of SoCTA 2016 is to provide a common platform to researchers academicians scientists and industrialists working in the area of soft computing to share and exchange their views and ideas on the theory and application of soft computing techniques in multi disciplinary areas The aim of the conference is to bring together young and experienced researchers academicians scientists and industrialists for the exchange of knowledge SoCTA especially encourages the young researchers at the beginning of their career to participate in this conference and present their work on this platform

Proceedings of Data Analytics and Management Deepak Gupta,Zdzislaw Polkowski,Ashish Khanna,Siddhartha Bhattacharyya,Oscar Castillo,2022-01-04 This book includes original unpublished contributions presented at the International Conference on Data Analytics and Management ICDAM 2021 held at Jan Wyzykowski University Poland during June 2021 The book covers the topics in data analytics data management big data computational intelligence and communication networks The book presents innovative work by leading academics researchers and experts from industry which is useful for young researchers and students

Handwritten Character Recognition - a Neutral Net Approach Chia-wei Hu,1995

Audio Watermark Yiqing Lin,Waleed H. Abdulla,2014-09-22 This book illustrates the commonly used and novel approaches of audio watermarking for copyrights protection The author examines the theoretical and practical step by step guide to the topic of data hiding in audio signal such as music speech broadcast The book covers new techniques developed by the authors are fully explained and MATLAB programs for audio watermarking and audio quality assessments and also discusses methods for objectively predicting the perceptual quality of the watermarked audio signals Explains the theoretical basics of the commonly used audio watermarking techniques Discusses the methods used to objectively and subjectively assess the quality of the audio signals Provides a comprehensive well tested MATLAB programs that can be used efficiently to watermark any audio media

Advanced Computer and Communication Engineering Technology Hamzah Asyrani Sulaiman,Mohd Azlishah Othman,Mohd Fairuz Iskandar Othman,Yahaya Abd Rahim,Naim Che Pee,2014-11-01 This book covers diverse aspects of advanced computer and communication engineering focusing specifically on industrial and manufacturing theory and applications of electronics communications computing and information technology Experts in research industry and academia present the latest developments in technology describe applications involving cutting edge communication and computer systems and explore likely future directions In addition access is offered to numerous new algorithms that assist in solving computer and communication engineering problems The book is based on presentations delivered at ICOCOE 2014 the 1st International

Conference on Communication and Computer Engineering It will appeal to a wide range of professionals in the field including telecommunication engineers computer engineers and scientists researchers academics and students

Web Mining V.S. Kumbhar, K. S. Oza, R.K. Kamat, 2022-09-01 Web mining is the application of data mining strategies to excerpt learning from web information i.e. web content web structure and web usage data With the emergence of the web as the predominant and converging platform for communication business and scholastic information dissemination especially in the last five years there are ever increasing research groups working on different aspects of web mining mainly in three directions These are mining of web content web structure and web usage In this context there are good number of frameworks and benchmarks related to the metrics of the websites which is certainly weighty for B2B B2C and in general in any e-commerce paradigm Owing to the popularity of this topic there are few books in the market dealing more on such performance metrics and other related issues This book however omits all such routine topics and lays more emphasis on the classification and clustering aspects of the websites in order to come out with the true perception of the websites in light of its usability In nutshell Web Mining A Synergic Approach Resorting to Classifications and Clustering showcases an effective methodology for classification and clustering of web sites from their usability point of view While the clustering and classification is accomplished by using an open source tool WEKA the basic dataset for the selected websites has been emanated by using a free tool site analyzer As a case study several commercial websites have been analyzed The dataset preparation using site analyzer and classification through WEKA by embedding different algorithms is one of the unique selling points of this book This text projects a complete spectrum of web mining from its very inception through data mining and takes the reader up to the application level Salient features of the book include Literature review of research work in the area of web mining Business websites domain researched and data collected using site analyzer tool Accessibility design text multimedia and networking are assessed Datasets are filtered further by selecting vital attributes which are Search Engine Optimized for processing using the Weka attributed tool Dataset with labels have been classified using J48 RBF Network Naive Bayes and SMO techniques using Weka A comparative analysis of all classifiers is reported Commercial applications for improving website performance based on SEO is given

HCI International 2017 - Posters' Extended Abstracts Constantine Stephanidis, 2017-05-11 The two volume set CCIS 713 and CCIS 714 contains the extended abstracts of the posters presented during the 19th International Conference on Human Computer Interaction HCI International 2017 held in Vancouver BC Canada in July 2017 HCII 2017 received a total of 4340 submissions of which 1228 papers were accepted for publication after a careful reviewing process The 177 papers presented in these two volumes were organized in topical sections as follows Part I Design and evaluation methods tools and practices novel interaction techniques and devices psychophysiological measuring and monitoring perception cognition and emotion in HCI data analysis and data mining in social media and communication ergonomics and models in work and training support Part II Interaction in virtual and

augmented reality learning games and gamification health well being and comfort smart environments mobile interaction
visual design and visualization socialissues and security in HCI Dr. Dobb's Journal ,1993 **Second-order and
Nonsmooth Training Methods for Fuzzy Neural Networks** Christian Eitzinger,2001 *Neural Network Fundamentals
with Graphs, Algorithms, and Applications* Nirmal K. Bose,Ping Liang,1996 Automatic object recognition Nicholas
George,2002 *HERCMA 2001 ,2002* **Progress in Pattern Recognition, Image Analysis and Applications** ,2004
Intelligent Systems Report ,1991 **Combining Pattern Classifiers** Ludmila I. Kuncheva,2004-07 Publisher
Description **Applied Optics** ,1999 **Electrical & Electronics Abstracts** ,1997

Recognizing the mannerism ways to acquire this books **Character Recognition Using Matlab S Neural Network Toolbox** is additionally useful. You have remained in right site to begin getting this info. get the Character Recognition Using Matlab S Neural Network Toolbox associate that we have enough money here and check out the link.

You could purchase guide Character Recognition Using Matlab S Neural Network Toolbox or acquire it as soon as feasible. You could speedily download this Character Recognition Using Matlab S Neural Network Toolbox after getting deal. So, with you require the books swiftly, you can straight acquire it. Its in view of that completely easy and correspondingly fats, isnt it? You have to favor to in this tell

<https://db1.greenfirefarms.com/results/browse/HomePages/best%20way%20to%20keyword%20research%20for%20students%20for%20creators%203624.pdf>

Table of Contents Character Recognition Using Matlab S Neural Network Toolbox

1. Understanding the eBook Character Recognition Using Matlab S Neural Network Toolbox
 - The Rise of Digital Reading Character Recognition Using Matlab S Neural Network Toolbox
 - Advantages of eBooks Over Traditional Books
2. Identifying Character Recognition Using Matlab S Neural Network Toolbox
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Character Recognition Using Matlab S Neural Network Toolbox
 - User-Friendly Interface
4. Exploring eBook Recommendations from Character Recognition Using Matlab S Neural Network Toolbox
 - Personalized Recommendations
 - Character Recognition Using Matlab S Neural Network Toolbox User Reviews and Ratings

- Character Recognition Using Matlab S Neural Network Toolbox and Bestseller Lists
- 5. Accessing Character Recognition Using Matlab S Neural Network Toolbox Free and Paid eBooks
 - Character Recognition Using Matlab S Neural Network Toolbox Public Domain eBooks
 - Character Recognition Using Matlab S Neural Network Toolbox eBook Subscription Services
 - Character Recognition Using Matlab S Neural Network Toolbox Budget-Friendly Options
- 6. Navigating Character Recognition Using Matlab S Neural Network Toolbox eBook Formats
 - ePub, PDF, MOBI, and More
 - Character Recognition Using Matlab S Neural Network Toolbox Compatibility with Devices
 - Character Recognition Using Matlab S Neural Network Toolbox Enhanced eBook Features
- 7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Character Recognition Using Matlab S Neural Network Toolbox
 - Highlighting and Note-Taking Character Recognition Using Matlab S Neural Network Toolbox
 - Interactive Elements Character Recognition Using Matlab S Neural Network Toolbox
- 8. Staying Engaged with Character Recognition Using Matlab S Neural Network Toolbox
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Character Recognition Using Matlab S Neural Network Toolbox
- 9. Balancing eBooks and Physical Books Character Recognition Using Matlab S Neural Network Toolbox
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Character Recognition Using Matlab S Neural Network Toolbox
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine Character Recognition Using Matlab S Neural Network Toolbox
 - Setting Reading Goals Character Recognition Using Matlab S Neural Network Toolbox
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Character Recognition Using Matlab S Neural Network Toolbox
 - Fact-Checking eBook Content of Character Recognition Using Matlab S Neural Network Toolbox
 - Distinguishing Credible Sources

13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
14. Embracing eBook Trends
 - Integration of Multimedia Elements
 - Interactive and Gamified eBooks

Character Recognition Using Matlab S Neural Network Toolbox Introduction

In the digital age, access to information has become easier than ever before. The ability to download Character Recognition Using Matlab S Neural Network Toolbox has revolutionized the way we consume written content. Whether you are a student looking for course material, an avid reader searching for your next favorite book, or a professional seeking research papers, the option to download Character Recognition Using Matlab S Neural Network Toolbox has opened up a world of possibilities. Downloading Character Recognition Using Matlab S Neural Network Toolbox provides numerous advantages over physical copies of books and documents. Firstly, it is incredibly convenient. Gone are the days of carrying around heavy textbooks or bulky folders filled with papers. With the click of a button, you can gain immediate access to valuable resources on any device. This convenience allows for efficient studying, researching, and reading on the go. Moreover, the cost-effective nature of downloading Character Recognition Using Matlab S Neural Network Toolbox has democratized knowledge. Traditional books and academic journals can be expensive, making it difficult for individuals with limited financial resources to access information. By offering free PDF downloads, publishers and authors are enabling a wider audience to benefit from their work. This inclusivity promotes equal opportunities for learning and personal growth. There are numerous websites and platforms where individuals can download Character Recognition Using Matlab S Neural Network Toolbox. These websites range from academic databases offering research papers and journals to online libraries with an expansive collection of books from various genres. Many authors and publishers also upload their work to specific websites, granting readers access to their content without any charge. These platforms not only provide access to existing literature but also serve as an excellent platform for undiscovered authors to share their work with the world. However, it is essential to be cautious while downloading Character Recognition Using Matlab S Neural Network Toolbox. Some websites may offer pirated or illegally obtained copies of copyrighted material. Engaging in such activities not only violates copyright laws but also undermines the efforts of authors, publishers, and researchers. To ensure ethical downloading, it is advisable to utilize reputable websites that prioritize the legal distribution of content. When downloading Character Recognition Using Matlab S Neural Network Toolbox, users should also consider the potential security risks associated with online platforms. Malicious

actors may exploit vulnerabilities in unprotected websites to distribute malware or steal personal information. To protect themselves, individuals should ensure their devices have reliable antivirus software installed and validate the legitimacy of the websites they are downloading from. In conclusion, the ability to download Character Recognition Using Matlab S Neural Network Toolbox has transformed the way we access information. With the convenience, cost-effectiveness, and accessibility it offers, free PDF downloads have become a popular choice for students, researchers, and book lovers worldwide. However, it is crucial to engage in ethical downloading practices and prioritize personal security when utilizing online platforms. By doing so, individuals can make the most of the vast array of free PDF resources available and embark on a journey of continuous learning and intellectual growth.

FAQs About Character Recognition Using Matlab S Neural Network Toolbox Books

1. Where can I buy Character Recognition Using Matlab S Neural Network Toolbox books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
3. How do I choose a Character Recognition Using Matlab S Neural Network Toolbox book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
4. How do I take care of Character Recognition Using Matlab S Neural Network Toolbox books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing. Book Swaps: Community book exchanges or online platforms where people exchange books.
6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets: You can create your own spreadsheet to track books read, ratings, and other details.
7. What are Character Recognition Using Matlab S Neural Network Toolbox audiobooks, and where can I find them?

- Audiobooks: Audio recordings of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.
8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media or recommend them to friends.
 9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.
 10. Can I read Character Recognition Using Matlab S Neural Network Toolbox books for free? Public Domain Books: Many classic books are available for free as they're in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

Find Character Recognition Using Matlab S Neural Network Toolbox :

best way to keyword research for students for creators 3624

how to start capsule wardrobe ideas for creators 3587

what is ai video generator guide for experts 3396

how to start anti inflammatory diet for creators 2537

simple matcha health benefits for beginners for workers 3361

how to start matcha health benefits step plan for beginners 2295

beginner friendly blog post ideas for small business for beginners 2152

expert sleep hygiene tips step plan for experts 3259

best side hustles for beginners for experts 3143

trending capsule wardrobe for moms for workers 3652

top method for ai image generator usa for students 2709

expert cheap flights usa for small business for experts 2312

beginner friendly anti inflammatory diet ideas for workers 2300

affordable cheap flights usa online for experts 2497

expert ai tools for small business for workers 2963

Character Recognition Using Matlab S Neural Network Toolbox :

Agaves, Yuccas, and Related Plants: A Gardener's Guide Superb scholarly reference work by Mary and Gary Irish. Detailed plant by plant descriptions, alphabetized by species name, and providing ample info for ... Agaves, Yuccas and Related Plants AGAVES, YUCCAS, AND RELATED PLANTS: A Gardener's Guide, Mary and Gary Irish, 384 pp, 100 color photos, 6 x 9in, hardcover, ©2000 Outlining the gardening use ... Agaves, yuccas, and related plants : a gardener's guide Dec 3, 2019 — 312 pages : 24 cm. Provides information on the cultivation and gardening uses of agave and yucca, as well as several other American genera ... Agaves, Yuccas, and Related Plants: A Gardener's Guide Agaves, Yuccas, and Related Plants: A Gardener's Guide. Illustrated with drawings by Karen Bell & photos by Gary Irish. Portland, Ore. Agaves Yuccas Related Plants Gardeners by Gary Irish Mary Agaves, Yuccas, and Related Plants: A Gardener's Guide by Gary Irish; Mary F. Irish and a great selection of related books, art and collectibles available ... Agaves, Yuccas, and Related Plants : A Gardener's Guide ... These exotic natives of the Americas are among the most striking of drought-tolerant plants, and they make wonderful accents in the landscape, providing ... Agaves Yuccas and Related Plants Agave, yuccas and their close relatives have fascinated gardeners for over 400 years. These evergreen masterpieces have an intriguing range of shape, habit, ... Agaves Yuccas and Related Plants: A Gardeners Guide by ... Agaves, Yuccas, and Related Plants: A Gardener's Guide by Mary & Gary Irish (2000 hardcover edition). Sold. See item details · See item details. Similar items ... Agaves, Yuccas and Related Plants by Gary Irish and Mary ... Product Information. Architectural and striking, these drought-tolerant plants provide excellent contrast to flowering perennial plantings. Agaves, Yuccas, and Related Plants: A... book by Mary F. ... Full Star Agaves, Yuccas, and Related Plants : A Gardener's Guide. By ... This book fills a real gap in information for gardeners interested in agaves, yuccas, ... ANSWER KEY - WORKBOOK 8.1. 1. 2 I was about to leave the office when the phone rang. 3 You weren't supposed to tell her the secret! 4 We were meant to pay in advance. 7A WORKBOOK ANSWERS 1 Three from: measuring heart beats, temperature, urine tests, blood tests. Accept other sensible responses. 2 The patient has spots. Answers © Pearson. 9. K c students' own answers, but should be backed up with a sensible reason. 4 Answers may vary. Some possible answers are: a explaining ... Pearson Education - solutions and answers Browse through your textbook and get expert solutions, hints, and answers to all exercises. ... Share worksheets, collaborate, and reach out to find other ... Answers 2 Students' own ideas about how we can tell that a life process is occurring in a certain item/organism. 3 The life process that can never be said to occur in. Answers 8Aa Nutrients. Student Book. 1: 8Aa Food and advertising. 1 Students' own answers: e.g. for energy, growth and repair, and health. Answer Key Worksheet 1 Worksheet 2 Worksheet 3 ... Jan 3, 2015 — Answer Key Worksheet 1 Worksheet 2 Worksheet 3 Worksheet 4. Answer Key ... Copyright © Pearson Education, Inc. Permission granted to reproduce ... 8A WORKBOOK ANSWERS 1 Students' own answers, making reference to the need for food for energy and/or growth, repairing the body, health. Some students may list specific ... Pearson Education Science Lesson Plans

& Worksheets Find pearson education science lesson plans and teaching resources. Quickly find that inspire student learning. Guide Hachette des vins 2014 (French Edition) - Amazon Amazon.com: Guide Hachette des vins 2014 (French Edition): 9782012384460: Collectif, Hachette: Books. Guide Hachette des Vins édition collector 2014 (French ... Amazon.com: Guide Hachette des Vins édition collector 2014 (French Edition): 9782012314825: Collectif, Hachette: Books. Le Guide Hachette des Vins Sep 6, 2023 — Le Guide Hachette des Vins is a wine guide from French publishing group Hachette. The book was first printed in 1985 and remains one of France's ... Guide Hachette des vins 2014 (French Edition) - Hardcover Le guide Hachette des vins 2014. Rosa, Stéphane. Published by Hachette, Paris (2013). ISBN 10: 2012384463 ISBN 13: 9782012384460. Used Hardcover Quantity: 1. Guide Hachette des vins 2014 (French Edition) By Collectif Guide Hachette des vins 2014 (French Edition) By Collectif ; Format. Hardcover ; Language. french ; Accurate description. 4.8 ; Reasonable shipping cost. 5.0. Hachette Wine Guide 2014: 1 star The fragrance is discreet but fine, predominantly floral, whereas the taste is full-bodied, balanced and long, becoming fruity. A pleasant contrast which in no ... Guide Hachette des Vins The Guide Hachette des Vins is a French wine buying guide published by Hachette Livre (Hachette Pratique). Its first edition was released in 1985. Guide Hachette des vins 2014 Publisher Description ; GENRE. Cookbooks, Food & Wine ; RELEASED. 2013. September 4 ; LANGUAGE. FR. French ; LENGTH. 1,400. Pages ; PUBLISHER. Hachette Pratique. Le guide Hachette des vins Edition 2014 - relié - Collectif Ce guide indispensable et incontournable vous renseignera sur les meilleurs vins. A avoir chez soi. Pour tous les amateurs (ou non) de vins !