Record Nr. UNINA9910830367403321 Character recognition systems [[electronic resource]]: a guide for **Titolo** students and practioners / / Mohamed Cheriet ... [et al.] Pubbl/distr/stampa Hoboken, N.J.,: Wiley-Interscience, c2007 **ISBN** 1-281-13472-4 9786611134723 0-470-17653-9 0-470-17652-0 Descrizione fisica 1 online resource (360 p.) Altri autori (Persone) CherietM (Mohamed) Disciplina 006.4/24 006.424 Soggetti Optical character recognition devices Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto CHARACTER RECOGNITION SYSTEMS; CONTENTS; Preface; Acknowledgments; List of Figures; List of Tables; Acronyms; 1 Introduction: Character Recognition, Evolution, and Development; 1.1 Generation and Recognition of Characters; 1.2 History of OCR; 1.3 Development of New Techniques; 1.4 Recent Trends and Movements; 1.5 Organization of the Remaining Chapters; References; 2 Tools for Image Preprocessing; 2.1 Generic Form-Processing System; 2.2 A Stroke Model for Complex Background Elimination; 2.2.1 Global Gray Level Thresholding; 2.2.2 Local Gray Level Thresholding 2.2.3 Local Feature Thresholding-Stroke-Based Model2.2.4 Choosing the Most Efficient Character Extraction Method; 2.2.5 Cleaning Up Form Items Using Stroke-Based Model; 2.3 A Scale-Space Approach for Visual Data Extraction; 2.3.1 Image Regularization; 2.3.2 Data Extraction; 2.3.3 Concluding Remarks; 2.4 Data Preprocessing; 2.4.1 Smoothing and Noise Removal; 2.4.2 Skew Detection and Correction; 2.4.3 Slant Correction; 2.4.4 Character Normalization; 2.4.5 Contour Tracing/Analysis; 2.4.6 Thinning; 2.5 Chapter Summary; References; 3 Feature Extraction, Selection, and Creation

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Sommario/riassunto

""Much of pattern recognition theory and practice, including methods such as Support Vector Machines, has emerged in an attempt to solve the character recognition problem. This book is written by very well-known academics who have worked in the field for many years and have made significant and lasting contributions. The book will no doubt be of value to students and practitioners.""-Sargur N. Srihari, SUNY Distinguished Professor, Department of Computer Science and Engineering, and Director, Center of Excellence for Document Analysis and Recognition (CEDAR), University at Buffalo, The Sta