

Seong-Whan Lee Yasuaki Nak



Document Analysis Systems: Theory and Practice

Third IAPR Workshop, DAS'98

Nagano, Japan, November 4-6, 1998

Selected Papers



Springer

Table of Contents

Part I: Document Image Compression and Retrieval

Measuring the Robustness of Character Shape Coding	1
<i>A. L. Spitz, P. Marks</i>	
Group 4 Compressed Document Matching	13
<i>D.-S. Lee, J. J. Hull</i>	
Restoration of Decorative Headline Images for Document Retrieval	22
<i>T. Amano</i>	
Document Image Analysis Using a New Compression Algorithm	32
<i>S. Deng, S. Latifi, J. Kanai</i>	

Part II: Document Structure Analysis

A General Approach to Quality Evaluation of Document Segmentation Results . .	43
<i>M. Thulke, V. Märgner, A. Dengel</i>	
Form Analysis by Neural Classification of Cells	58
<i>Y. Belaïd, A. Belaïd</i>	
A Formal Approach to Textons and Its Application to Font Style Detection . . .	72
<i>A. Schreyer, P. Suda, G. Maderlechner</i>	
A Statistical Method for an Automatic Detection of Form Types	84
<i>S. Kebairi, B. Taconet, A. Zahour, S. Ramdane</i>	
Structure Analysis of Low Resolution Fax Cover Pages	99
<i>Y.-K. Lim, H.-J. Kang, C. Ahn, S.-W. Lee</i>	

Part III: Handwriting Recognition

Lexical Search Approach for Character-String Recognition	115
<i>M. Koga, R. Mine, H. Sako, H. Fujisawa</i>	
A Segmentation Method for Touching Handwritten Japanese Characters	130
<i>H. Nishimura, H. Ikeda, Y. Nakano</i>	

Cursive Handwritten Word Recognition by Integrating Multiple Classifiers	140
<i>K. Maruyama, M. Kobayashi, H. Yamada, Y. Nakano</i>	
Segmentation of Touching Characters in Formulas	151
<i>M. Okamoto, S. Sakaguchi, T. Suzuki</i>	
The AddressScript™ Recognition System for Handwritten Envelopes	157
<i>A. Filatov, V. Nikitin, A. Volgunin, P. Zelinsky</i>	

Part IV: Document Image Analysis

Sorting and Recognizing Cheques and Financial Documents	173
<i>C. Y. Suen, K. Liu, N. W. Strathy</i>	
A System for the Automated Reading of Check Amounts - Some Key Ideas	188
<i>G. Kaufmann, H. Bunke</i>	
A Fast Japanese Word Extraction with Classification to Similarly-Shaped Character Categories and Morphological Analysis	201
<i>M. Ozaki, K. Itonori</i>	
A Layout-Free Method for Extracting Elements from Document Images	215
<i>T. Kochi, T. Saitoh</i>	
Text-Line Extraction as Selection of Paths in the Neighbor Graph	225
<i>K. Kise, M. Iwata, A. Dengel, K. Matsumoto</i>	
Table Structure Extraction from Form Documents Based on Gradient-Wavelet Scheme	240
<i>D. Xi, S.-W. Lee</i>	
The T-Recs Table Recognition and Analysis System	255
<i>T. Kieninger, A. Dengel</i>	

Part V: Document Analysis Systems

Document Analysis Systems Development and Representation through the Object-Process Methodology	271
<i>D. Dori</i>	
Precise Table Recognition by Making Use of Reference Tables	283
<i>C. Wenzel, W. Tersteegen</i>	

Design of an Integrated Environment for the Automated Analysis of Architectural Drawings	295
<i>P. Dosch, C. Ah-Soon, G. Masini, G. Sánchez, K. Tombre</i>	
An Approach for Processing Mathematical Expressions in Printed Document	310
<i>B. B. Chaudhuri, U. Garain</i>	
A Map Mosaicking Method Using Opportunistic Search Approach with a Blackboard Structure	322
<i>J. Yi, M. S. Lee, J. Kim</i>	
Document Layout and Reading Sequence Analysis by Extended Split Detection Method	336
<i>N. Nakajima, K. Yamada, J. Tsukumo</i>	
Chinese Handwritten Character Segmentation in Form Documents	348
<i>J.-L. Chen, C.-H. Wu, H.-J. Lee</i>	
Text Extraction, Enhancement and OCR in Digital Video	363
<i>H. Li, D. Doermann, O. Kia</i>	