

Preface

Recently, there has been an increased interest in the research and development of techniques for components of complete document analysis systems. In recognition of this trend, a series of workshops on Document Analysis Systems commenced in 1994, under the leadership of Henry Baird. The first workshop, held in Kaiserslautern, Germany, in October, 1994, was chaired by Andreas Dengel and Larry Spitz. The second workshop on Document Analysis Systems was held in Malvern, PA, USA, in October, 1996, chaired by Jonathan J. Hull and Suzanne Liebowitz Taylor. The DAS workshop has been one of the most prestigious technical meetings, bringing together a large number of scientists and engineers from all over the world to express their innovative ideas and report on their latest achievements in the area of document analysis systems.

The papers in this special book edition were rigorously selected from the Third IAPR Workshop on Document Analysis Systems (DAS'98), held in Nagano, Japan, on 4 - 6 November 1998. It is worth mentioning that the papers were chosen for their original and substantial contributions to the workshop theme and this special book edition. From among the 53 papers that were presented by authors from 11 countries at the DAS'98 after critical reviews by at least three experts, we carefully selected 29 papers for this special book edition. Most of the contributions in this edition have been expanded or extensively revised to include helpful discussions, suggestions, or comments made during the workshop. The papers deal with a wide range of research on document analysis systems, such as design principles, theoretical analysis, implementation techniques, and experimental results.

In keeping with the main topics of document analysis systems research, the papers contributed to this special book edition are organized into five sections:

Part I: Document Image Compression and Retrieval

Part II : Document Structure Analysis

Part III: Handwriting Recognition

Part IV: Document Image Analysis

Part V: Document Analysis System

This book is primarily addressed to researchers involved in document analysis systems who wish to increase their knowledge and expertise regarding these topics. It furthermore aims at the audience of those scientists who work in the various disciplines represented in the sections of the book. We would like to express our sincere appreciation to all the contributors and reviewers; this special edition would have not been publishable without them. The reviewers contributed generous amounts of time in the review process. They include H.S. Baird (Xerox Palo Alto Research Center, USA), A. Belaïd (UMR LORIA, France), H. Bunke (University of Bern, Switzerland), Y. Choi (Sookmyung Women's University, Korea), A. Dengel (German Research Center for AI, Germany), D. Doermann (University of Maryland, USA), T. Ejima (Kyushu Institute of Technology, Japan), H. Fujisawa (Central Research Laboratory, Hitachi, Ltd., Japan), J.J. Hull (Ricoh California Research Center, USA), Y. Ishitani (Toshiba Corporation, Japan), J. Kanai (Panasonic Information and Networking Technologies Laboratory, USA), G. Kim (Sogang University, Korea), J. Kim (Yonsei University, Korea), S.H. Kim (Chonnam National University, Korea), F. Kimura (Mie University, Japan), S.-W. Lee (Korea University, Korea), Y. Lee (Yonsei University, Korea), G. Maderlechner (Siemens AG, Germany), Y. Nakano (Shinshu University, Japan), H. Nishida (Ricoh, Japan), A.L. Spitz (Document Recognition Technologies, USA), C.Y. Suen (Concordia University, Canada), M. Suzuki (Kyushu University, Japan), Y.Y. Tang (Hong Kong

Baptist University, Hong Kong), and K. Yamamoto (Gifu University, Japan).

Finally, we would also like to acknowledge all authors and participants of the workshop who facilitated the communication between investigators and created an insightful and stimulating environment. Our appreciation also goes to A. Hofmann, Editor at Springer-Verlag for his patience and help in guiding us through this task. We hope that this book will promote further research in document analysis systems.

August 1999

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Document Analysis Systems: Theory and Practice

Third IAPR Workshop, DAS'98, Nagano, Japan,

November 4-6, 1998, Selected Papers

Lee, S.-W.; Nakano, Y. (Eds.)

1999, XII, 384 p., Softcover

ISBN: 978-3-540-66507-6