

CONTENTS

Foreword	v
<i>A. Saoudi, M. Nivat & P. S. P. Wang</i>	
Picture Generation and Recognition	
Two Topics Concerning Two-Dimensional Automata Operating in Parallel	1*
<i>K. Inoue, I. Sakuramoto, M. Sakamoto & I. Takanami</i>	
Three-Dimensional Object Pattern Representation by Array Grammars	17
<i>P. S. P. Wang</i>	
Recognizable Picture Languages	31
<i>D. Giammarresi & A. Restivo</i>	
Stochastic Puzzle Grammars	47
<i>R. Siromoney, A. Huq, M. Chandrasekaran & K. G. Subramanian</i>	
Learning of Pattern and Picture Languages	65
<i>R. Siromoney, K. G. Subramanian & L. Mathew</i>	
Parallel Recognition and Parsing Algorithms	
Parallel Recognition of High Dimensional Images	75
<i>M. Nivat & A. Saoudi</i>	
On Parallel Recognition of Two Classes of 2-D Array Patterns	83
<i>W. Rytter & A. Saoudi</i>	
Two-Dimensional Uniquely Parsable Isometric Array Grammars	91
<i>Y. Yamamoto & K. Morita</i>	
A Parallel Algorithm for Analyzing Connected Components in Binary Images	105
<i>F. Chiavetta, V. Di Gesù & R. Renda</i>	
Parallel Architectures and Algorithms	
Replicated Image Algorithms and Their Analyses on SIMD Machines	125
<i>P. J. Narayanan & L. S. Davis</i>	
The Depth and Motion Analysis Machine	143
<i>O. D. Faugeras, R. Deriche, H. Mathieu, N. Ayache & G. Randall</i>	

* Please note that page numbers listed here refer to those at the bottom of each page in the book.

Image Analysis on Massively Parallel Computers: An Architectural Point of View	177
<i>A. Mériqot & B. Zavidovique</i>	
Stealth Terrain Navigation for Multi-Vehicle Path Planning	185
<i>Y. A. Teng, D. DeMenthon & L. S. Davis</i>	
Implementation of the Z-Buffer Algorithm on a Reconfigurable Network of Processors	207
<i>J.-J. Li, S. Miguet & Y. Robert</i>	
Neural Networks	
Parallel Algorithm for Colour Texture Generation Using the Random Neural Network Model	227
<i>V. Atalay & E. Gelenbe</i>	
Combining Image Processing Operators and Neural Networks in a Face Recognition System	237
<i>P. Flocchini, F. Gardin, G. Mauri, M. P. Pensini & P. Stofella</i>	