



Special Section on Scientific Research on Priority Area “New Horizons in Computing”



Editorial Preface	Akio FUJIYOSHI	75
1. Scientific Research on Priority Area “New Horizons in Computing”	Kazuo IWAMA	76
2. Extracting Dense Subgraphs : Complexity Barriers and Breakthrough	Takeshi TOKUYAMA	82
3. Algorithm Techniques for Cryptographic Protocols with Anonymity	Keisuke TANAKA	90
4. Ultra-succinct Data Structures	Kunihiko SADAKANE	97

Technical Survey

Current Status and Future Prospective on Millimeter-wave CMOS Circuits	Minoru FUJISHIMA	105
Visualization Techniques for Networks : The Challenges to Large-scale Networks and Dynamic Networks	Kazuo MISUE	112
Microphone Array Technologies for Hands-free Speech Communications Akitoshi KATAOKA, Kazunori KOBAYASHI, and Yusuke HIOKA		118
High Speed Computation on Genome Informatics	Takeaki UNO	125
Embedded Non-volatile Memory Technologies	Hideto HIDAOKA	131

Tutorial

Super-compact Base Station for Expanding Confined Indoor Service Areas	Masumi KITAGAWA	138
--	-----------------	-----

News Analysis

C- and X-band GaN HEMT Amplifiers with State-of-the-art Efficiency		142
--	--	-----