

IEICE TRANSACTIONS

O-122-2-1
月 v.96A
n.2
刊

on Fundamentals of Electronics, Communications and Computer Sciences

- *Special Section on Analog Circuit Techniques and Related Topics*
- *Special Section on Mathematical Systems Science and its Applications*

Special Section on Analog Circuit Techniques and Related Topics

- | | |
|--------------------|---------------|
| 401 FOREWORD | Takeshi SHIMA |
|--------------------|---------------|

PAPERS

- | | |
|---|---|
| 402 Exact Design of RC Polyphase Filters and Related Issues (<i>INVITED</i>) | Hiroshi TANIMOTO |
| 415 Non-binary Pipeline Analog-to-Digital Converter Based on β -Expansion | Hao SAN, Tomonari KATO, Tsubasa MARUYAMA, Kazuyuki AIHARA, and Masao HOTTA |
| 422 A 6 bit, 7 mW, 700 MS/s Subranging ADC Using CDAC and Gate-Weighted Interpolation | Hyunui LEE, Yusuke ASADA, Masaya MIYAHARA, and Akira MATSUZAWA |
| 434 An Opampless Second-Order MASH $\Delta\Sigma$ ADC with Using Gated Ring Oscillator Time-to-Digital Converter | Toshihiro KONISHI, Keisuke OKUNO, Shintaro IZUMI, Masahiko YOSHIMOTO, and Hiroshi KAWAGUCHI |
| 443 A 4–10 bit, 0.4–1 V Power Supply, Power Scalable Asynchronous SAR-ADC in 40 nm-CMOS with Wide Supply Voltage Range SAR Controller | Akira SHIKATA, Ryota SEKIMOTO, Kentaro YOSHIOKA, Tadahiro KURODA, and Hiroki ISHIKURO |
| 453 An 8-Bit 100-kS/s CMOS Single-Ended SA ADC for 8×8 Point EEG/MEG Acquisition System | Ji-Hun EO, Yeon-Ho JEONG, and Young-Chan JANG |
| 459 Signal-Dependent Analog-to-Digital Conversion Based on MINIMAX Sampling | Igor HOMJAKOV, Masanori HASHIMOTO, Tetsuya HIROSE, and Takao ONOYE |
| 469 Adaptive Analog-to-Information Converter Design with Limited Random Sequence Modulation | Chao ZHANG and Jialuo XIAO |
| 477 Implementation of Low-Noise Switched-Capacitor Low-Pass Filter with Small Capacitance Spread | Retdian NICODIMUS and Shigetaka TAKAGI |
| 486 A 120 GHz/140 GHz Dual-Channel OOK Receiver Using 65 nm CMOS Technology | Ryuichi FUJIMOTO, Mizuki MOTOYOSHI, Kyoya TAKANO, and Minoru FUJISHIMA |

(continued over leaf)



A PUBLICATION OF THE ENGINEERING SCIENCES SOCIETY
The Institute of Electronics, Information and Communication Engineers
Kikai-Shinko-Kaikan Bldg., 5-8, Shibakoen 3 chome, Minato-ku, TOKYO, 105-0011 JAPAN
URL:<http://search.ieice.org/ess/>

VOL.E96-A NO.2
FEBRUARY 2013

Special Section on Mathematical Systems Science and its Applications

- 494 FOREWORD Morikazu NAKAMURA

PAPERS

■ Concurrent Systems

- 495 Refinement and Verification of Sequence Diagrams Using the Process Algebra CSP Tomohiro KAIZU, Yoshinao ISOBE, and Masato SUZUKI
505 Polynomial Time Verification of Protocol Inheritance between Acyclic Extended Free-Choice Workflow Nets and Their Subnets Shingo YAMAGUCHI and Tomohiro HIRAKAWA
514 Incorporation of Cycles and Inhibitory Arcs into the Timed Petri Net Model of Signaling Pathway Yuki MURAKAMI, Qi-Wei GE, and Hiroshi MATSUNO
525 Reinforcement Learning of Optimal Supervisor for Discrete Event Systems with Different Preferences Koji KAJIWARA and Tatsushi YAMASAKI

■ Systems and Control

- 532 Optimal Control of Boolean Biological Networks Modeled by Petri Nets Koichi KOBAYASHI and Kunihiko HIRAISHI

■ Algorithms and Data Structures

- 540 Two Heuristic Algorithms for the Minimum Initial Marking Problem of Timed Petri Nets Satoru OCHIIWA, Satoshi TAOKA, Masahiro YAMAUCHI, and Toshimasa WATANABE

■ Graphs and Networks

- 554 A Relocation Planning Method for Railway Cars in Final Assembly Shop Yoichi NAGAO, Shinichi NAKANO, Akifumi HOSHINO, Yasushi KANETA, Toshiyuki KITA, and Masakazu OKAMOTO

Regular Section

PAPERS

■ Digital Signal Processing

- 562 A Low Complexity H.264/AVC Deblocking Filter with Simplified Filtering Boundary Strength Decision Luong Pham VAN, Hoyoung LEE, Jaehwan KIM, and Byeungwoo JEON
573 Sparsity and Block-Sparsity Concepts Based Wideband Spectrum Sensing Davood MARDANI NAJAFABADI, Masoud Reza AGHABOZORGI SAHAF, and Ali Akbar TADAION
584 Low Complexity Logarithmic and Anti-Logarithmic Converters for Hybrid Number System Processors and DSP Applications Van-Phuc HOANG and Cong-Kha PHAM

■ Systems and Control

- 591 Energy Conversion and Phase Regulation in Transient States of Frequency Entrainment Described by van der Pol and Phase-Locked Loop Equations Yuichi YOKOI and Yoshihiko SUSUKI

■ Nonlinear Problems

- 600 Eigen Analysis of Space Embedded Equation in Moment Vector Space for Multi-Dimensional Chaotic Systems Hideki SATOH

■ VLSI Design Technology and CAD

- 609 An Area-Time Efficient Key Equation Solver with Euclidean Algorithm for Reed-Solomon Decoders Kazuhito ITO

■ Cryptography and Information Security

- 618 Exact Power Analysis of Unified Code over Generalized Mersenne Prime Fields Toshiyuki MASUE
626 The Properties of the FCSR-Based Self-Shrinking Sequence Huijuan WANG, Qiaoyan WEN, and Jie ZHANG

■ Information Theory

- 635 Secure Regenerating Codes Based on Rashmi-Shah-Kumar MBR Codes Masazumi KURIHARA and Hidenori KUWAKADO

■ Mobile Information Network and Personal Communications

- 649 Development of Emergency Rescue Evacuation Support System (ERESS) in Panic-Type Disasters: Disaster Recognition Algorithm by Support Vector Machine Kazuya MORI, Akinori YAMANE, Youhei HAYAKAWA, Tomotaka WADA, Kazuhiro OHTSUKI, and Hiromi OKADA



LETTERS

■ Digital Signal Processing

- 658 A Study on the Degrees of Freedom in an Experimental Design Model Based on an Orthonormal System Yoshifumi UKITA, Toshiyasu MATSUSHIMA, and Shigeichi HIRASAWA

■ Cryptography and Information Security

- 663 On the Balanced Elementary Symmetric Boolean Functions Longjiang QU, Qingping DAI, and Chao LI

666 ABSTRACTS (IEICE Trans. Fundamentals (Japanese Edition), Vol. J96-A, No. 2)

Original Contributions in English

Copyright © 2013 by The Institute of Electronics, Information and Communication Engineers

The IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences has been selected for coverage in the following ISI (Institute for Scientific Information) products/services.

- Science Citation Index Expanded (included in "Web of Science")
- Current Contents (Edition: Engineering, Computing and Technology)
- ISI Alerting Services
- CompuMath Citation Index*

*CompuMath Citation Index includes bibliographic information from over 600 journals, books, and proceedings on computers and mathematics.