

IEICE TRANSACTIONS

O-112-2-1
月 v.96A
n.5
刊

on Fundamentals of Electronics, Communications and Computer Sciences

■ Special Section on Networked Control Systems: Theories & Applications

Special Section on Networked Control Systems: Theories & Applications

- 843 FOREWORD Masaaki KATAYAMA

PAPERS

- 844 Demands on Reliable and Robust Wireless Communications under Land-Sea-and-Air Extreme Environments (INVITED) Kazuya YOSHIDA, Koji IZUMI, Hiroshi YOSHIDA, Ryu MIURA, and Fumie ONO
853 Networked Control of Uncertain Systems over Data Rate Limited and Lossy Channels Kunihisa OKANO and Hideaki ISHII
861 Self-Triggered Model Predictive Control with Delay Compensation for Networked Control Systems Koichi KOBAYASHI and Kunihiko HIRAI
869 Impact of the Reduction of Transmitted Information on the Control Quality in a Wireless Feedback Control System Ryota MIZUTANI, Kentaro KOBAYASHI, Hiraku OKADA, and Masaaki KATAYAMA
878 Co-scheduling of Communication and Control of Multi-Hop Control Networks Yasuki NANAMORI and Toshimitsu USHIO
886 Secure and Efficient Report Protocol for Networked Smart Grid Systems Using Linear Map Youngsam KIM and Joon HEO
896 Distributed Power Control Network and Green Building Test-Bed for Demand Response in Smart Grid Kei SAKAGUCHI, Van Ky NGUYEN, Yu TAO, Gia Khanh TRAN, and Kiyomichi ARAKI
908 An Independent Sleep Scheduling Protocol for Increasing Energy-Efficiency in Wireless Body Area Networks Seungku KIM, Huan-Bang LI, and Doo-Seop EOM
916 Decentralized Equal-Sized Clustering in Sensor Networks Takeshi KUBO, Atsushi TAGAMI, Teruyuki HASEGAWA, and Toru HASEGAWA
927 Experimental Evaluation of Ultra Wideband Wireless Links within a Spacecraft for Replacing Wired Interface Buses Shinichiro HAMADA, Atsushi TOMIKI, Tomoaki TODA, and Takehiko KOBAYASHI

Regular Section

PAPERS

■ Digital Signal Processing

- 935 Look-Up-Table-Based Exponential Computation and Application to an EM Algorithm for GMM Hidenori WATANABE and Shogo MURAMATSU

■ Circuit Theory

- 940 Transmission Line Coupler Design and Mixer-Based Receiver for Dicode Partial Response Communications Tsutomu TAKEYA and Tadahiro KURODA

(continued on back cover)



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.5
MAY 2013

■ VLSI Design Technology and CAD

- 947 Intra-Gate Length Biasing for Leakage Optimization in 45 nm Technology Node Yesung KANG and Youngmin KIM

■ Reliability, Maintainability and Safety Analysis

- 953 Dynamic Fault Tree Analysis Using Bayesian Networks and Sequence Probabilities Tetsushi YUGE and Shigeru YANAGI

■ Cryptography and Information Security

- 963 Architecture and Physical Implementation of Reconfigurable Multi-Port Physical Unclonable Functions in 65 nm CMOS Pengjun WANG, Yuejun ZHANG, Jun HAN, Zhiyi YU, Yibo FAN, and Zhang ZHANG

■ Image

- 971 A Novel Color Descriptor for Road-Sign Detection Qieshi ZHANG and Sei-ichiro KAMATA

LETTERS

■ Engineering Acoustics

- 980 RLS-Based On-Line Sparse Nonnegative Matrix Factorization Method for Acoustic Signal Processing Systems Seokjin LEE

■ Noise and Vibration

- 986 Delayless Subband Adaptive Filter for Active Wideband Noise Control Qinghua LIU, Shan OUYANG, and Junzheng JIANG

■ Digital Signal Processing

- 991 Effect of Load Fluctuation in Data Transmission for Wireless Power Transfer Kazuki SUGENO, Shinpei NOGUCHI, Mamiko INAMORI, and Yukitoshi SANADA

■ VLSI Design Technology and CAD

- 995 Energy-Efficient IDCT Design for DS-CDMA Watermarking Systems Shan-Chun KUO, Hong-Yuan JHENG, Fan-Chieh CHENG, and Shanq-Jang RUAN

■ Cryptography and Information Security

- 997 On the Linear Complexity of a Class of Quaternary Sequences with Low Autocorrelation Lu ZHAO, Qiao-yan WEN, and Jie ZHANG

- 1001 Linear Complexity of a New Generalized Cyclotomic Sequence of Order Two of Length pq Xiaoping LI, Wenping MA, Tongjiang YAN, and Xubo ZHAO

■ Coding Theory

- 1006 Iterative Decoding for the Davey-MacKay Construction over IDS-AWGN Channel Xiaopeng JIAO, Jianjun MU, and Rong SUN

■ Communication Theory and Signals

- 1010 On The Average Partial Hamming Correlation of Frequency-Hopping Sequences Wenli REN, Fang-Wei FU, and Zhengchun ZHOU

- 1014 Joint Channel Shortening and Carrier Frequency Offset Estimation Based on Carrier Nulling Criterion in Downlink OFDMA Systems Teruyuki MIYAJIMA and Ryo KUWANA

- 1017 MSE-Based Robust Precoder Design in Multicell Downlink Systems Cong-gai LI, Chen HE, and Ling-ge JIANG

1021 ABSTRACTS (IEICE Trans. Fundamentals (Japanese Edition), Vol. J96-A, No. 5)

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.