

Technical Group on Communication Systems

Chair : Iwao SASASE (Keio University)
 Vice chair: Yoichi MAEDA (NTT Labs.)
 Secretary : Hiroshi TOMONAGA (Fujitsu Labs.), Youichi Fukada (NTT Labs.)

Date : March., 15-16 2004.
 Topics : Active networks, IP-VPN, ultra high-speed networks and routers, etc.
 Location : Hiroshima University. URL: <http://www.hiroshima-u.ac.jp/>

General Talk Speech 20min., Q&A 10min.
 Invited Talk Speech 50min., Q&A 10min.

15-Mar

start end

9:30 - 10:00

Room A: Image Coding

1 Block Matching Motion Estimation using Block Division and Integration
 Masatoshi Hino, Nozomu Hamada (Keio Univ.)

10:00 - 10:30

2 A study of 3-dimensional coordinates restoration error using the orthogonal projection algorithm
 Makoto Kawakami (Chiba Institute of Technology), Masahiro Fukumoto (Kochi University of Technology), Hiroshi Ota (Criminal Investigation Laboratory), Hajime Kubota (Chiba Institute of Technology)

10:30 - 11:00

3 Lossless Image Coding Using Subband Coding and Linear Predictors
 Takahiro Hatsuda, Kunio Oishi (Graduate School, Tokyo University of Technology)

11:00 - 11:15 break

Room A: Restroration of Images

4 A Watermarking Technique Based on Noise Masking Effects
 Kousuke OOE and Mitsuji MUNEYASU (Kansai Univ.)

11:15 - 11:45

5 An Improvement of An Adaptive Weighted Mean Filter Using Fuzzy Clustering and Its Improvement
 Takehiro IWAI, Mitsuji MUNEYASU (Kansai Univ.), Tetsuya ODA and Takao HINAMOTO (Hiroshima Univ.)

12:15 - 12:45

6 A Consideration on Restoration of Images with Noises dependent on Signals
 Hiroaki TAJIMA, Junya KANEKO, Takehiro NAGAYAMA, Masaaki AMANO(Meiji

12:45 - 13:45 break

Room A: Filters

13 A Design Method of Finite-Wordlength IIR Digital Filters Using the Relaxation Based on the Lagrange Multiplier Method
 Masayoshi NAKAMOTO and Takao HINAMOTO (Hiroshima Univ.)

14:15 - 14:45

14 A Study on the Pole Assignment for the Three-Dimensional Systems (I)
 Atsushi KAWAKAMI (Kanazawa Institute of Technology)

14:45 - 15:15

15 On the Separation via State Estimation Approach of Mixed Markov Signals with Junya KANEKO, Hiroaki TAJIMA, Takehiro NAGAYAMA, Masaaki AMANO(Meiji

15:15 - 15:45

16 A study of 0.9V CMOS Biquad Filter

Daisuke KUROSE, Takeshi UENO, Rui ITO, Tetsuro ITAKURA (Toshiba Corporation)

15:45 - 16:00 break

Room A: Invited Speech

17 Ubiquitous Networks and RFID-tag technologies
 Masahiro Umehira (NTT)

16-Mar

start end

9:00 - 9:30

Room A: Filter, Spectrum Analysis

22 Consideration of Musical Instrument Estimation based on Spectrum Structure for Musical Transcription System
 Tsuyoshi MATSUO, Michiru YAMAGUCHI, Yoshiaki TADOKORO (Toyoashi Univ. of

9:30 - 10:00

23 Consideration for Separation of Polyphonic Musical Sounds and Regeneration of Their Sounds Using Comb Filters
 Takashi ASANO, Michiru YAMAGUCHI, Yoshiaki TADOKORO (Toyoashi Univ. of

10:00 - 10:30

24 Speech Noise Reduction System Using Frequency Domain Adaptive Line Enhancer - Decorrelation Parameter in Frequency Domain -
 Takenori ASAKURA, Isao NAKANISHI, Yoshio ITOH, Yutaka FUKUI (Tottori

10:30 - 10:45 break

Room A: Filters

25 Parallel Ant-system with Genetic Operation
 Yuusuke KUBOTA, Kaoru Watanabe (Osaka Electro-Communication University)

10:45 - 11:15

26 Design of Two-Dimensional Separable-Denominator Adaptive Filters Based on Takao HINAMOTO and Katsutoshi HASHIGUCHI (Hiroshima Univ.)

11:15 - 11:45

27 Adaptive IIR Fractional Decimation Filter for a Single Sinusoid Detection using Masaki Kato, Nobuaki Takahashi (Tokai Univ.)

11:45 - 12:15

Room A: Fellow Speech

34 How was the Technical Group on Digital Signal Processing in Japan organized ?
 Rokuya ISHI (Yokohama National Univ.)

12:15 - 13:15 break

Room A: Notch Filters

35 Consideration of Multi-frequency Estimation Using Notch Filters based on Sampling Nobukazu TANAKA, Kentaro NOGUCHI, Yoshiaki TADOKORO (Toyoashi Univ. of

14:30 - 15:00

36 On the Performance Analysis of Adaptive IIR Notch Filters: PSD-Based Approach Mvuma aloys (Hiroshima Univ.), Shotaro Nishimura (Shimane Univ.) and

15:00 - 15:30

37 A Study on the Improvement of the Convergence Speed of Cascaded Adaptive Notch Filter via Control of Pole Position
 Kazutomo MATSUURA (Tottori Univ.), Yasutomo KINUGASA (Matsue National College of Tech.), Yoshio ITOH (Tottori Univ.), Masaki KOBAYASHI (Chubu Univ.), Yutaka FUKUI (Tottori Univ.)

15:30 - 16:00

38 An Editable Hairstyle Design System per Hair Strand
 Ayako KATO, Toshihiro FURUKAWA (Tokyo University of Science), Shigeo MORISHIMA (Seikei University)

16:00 - 16:30

Room B: Filters

7 Hardware Design of Multiple Constant Multiplication Circuits Using Genetic Algorithm Hideyuki KOMIYA, Takao SASAKI, Hisamichi TOYOSHIMA (Kanagawa Univ.)

8 Optimization of Coefficient Multiplication Block for FIR Digital Filters Using Tabu Search

Arihiro MATSUMOTO, Takao SASAKI, Hisamichi TOYOSHIMA (Kanagawa Univ.)

9 A Parallel String Matching Method based on A Hash Automaton
 Ryosuke KUREBAYASHI, Masaru KATAYAMA, Naoaki YAMANAKA, Kohei SHIOMOTO (NTT Network Innovation Laboratories)

Room B: Network Processor

10 A consideration of the table lookup time in a Network Processor

Yukio Hirano, Atsushi Toho, Shuji Ito (Melco)

11 Proposal and Evaluation of Network-Processor Acceleration Architecture Using

Header-Learning Cache and Cache-Miss Handler

Michtaka Okuno (Hitach CRL), Hiroaki Nishi (Keio Univ.)

12 Evaluation of IPv6 over IPv4 Tunneling on Network Processor

Minoru Hidaka, Masayuki Takase, Tomoyuki Oku (Hitachi)

Room B: Wireless

18 Kalman filter-based Channel Estimation for Space-Time block Code

Kok Ann Donny Teo, Shuichi Ohno, Takao Hinamoto (Hiroshima Univ.)

19 Low Correlative Adaptive Array Antenna with Decision Feedback using Interpolation of Weights in OFDM Systems

Tomohiro Hiramoto, Iwao Sasase (Keio Univ.)

20 A Study of MIMO-OFDM with Error Detection Code System

Manabu Inoue, Riaz Esmailzadeh, Masao Nakagawa (Keio Univ.)

21 A Study of the Latency Reduction and the Mitigation of Quality Degradation in Mobile

Communication Systems

Masaru Horjo (KDDI R&D Labs. Inc.), Takaya Yamazato (Nagoya Univ.), Tadahiro

Wada (Shizuoka Univ.), Hiraku Okada, Masaaki Katayama (Nagoya Univ.), Akira

Room B: Wireless

28 Array Combining MAP Reception for MIMO-OFDM Transmission Systems

Yojiro Yamada, Kazuhiko Fukawa, Hiroshi Suzuki, Satoshi Suyama (T.I.T.)

29 A Frequency-Offset Transmission Diversity Scheme for OFDM Mobile

Communication Systems

Felipe de Jesus Barragan Perez, Hiroshi Suzuki, Kazuhiko Fukawa, Satoshi Suyama

30 A Study of Real-time Wireless Communications using Subcarrier Selection in Multi-

robot Environment

Atsushi Kamikura, Masao Nakagawa (Keio Univ.)

Room B: Traffic Control

31 A study of the traffic characteristic on B-PON system

Kazuo Fujiwara, Toshiyuki Iwata (NTT AS lab)

32 Inside Speed Variable Type Capacity Control Method for Delay Reduction

Okajima Tsunee (Meiji Univ.)

33 Traffic Measurement tool

Masami Fukuda (Kyushu Electric Power), Noriaki Kido, Yuji Oie (KIT)

Room B: PON, Optical Communication

39 Pervasive Visible Light Positioning System using White LED Lighting

Shuhei Honkawa, Shinitiro Haruyama, Masao Nakagawa (Keio Univ.)

40 A Study on Train Communication System using Graded-index Leaky Plastic Optical

Yasuo Sugawara, Akihiro Shimura, Shinichiro Haruyama, Masao Nakagawa (Keio Univ.)

41 G-PON Repeatered System for Enlarging Transmission Distance between OLT and

ONU

Tomonori SHIBUYA, Nobuhiro HIRACHI, Ken-Ichi SUZUKI (NTT)

42 Multi-bit Rate Optical Receiver For G-PON System

Nobuhiro Hirachi (NTT), Tomonori Shibuya, Shinichi Yoshihara, Ken-Ichi Suzuki,

Koichi Saito (NTT)

Announcement of the Next Meeting:

To make a presentation in our domestic conference, you have to contact one of the secretaries via e-mail at first. Please access the following homepage for more detailed information including the meeting schedule.
 Home Page: <http://www.ieice.org/cs/cs/>

Secretaries:

Hiroshi Tomonaga (Fujitsu Labs.)
 Phone: +81-44-754-2622
 E-mail: h_tomonaga@jp.fujitsu.com

Youichi Fukada (NTT Access Service Systems Labs)
 Phone: +81-043-211-3289
 E-mail: fukada.youichi@ansl.ntt.co.jp