

Table of Contents

Session 1

Third Generation Systems – A. Paulraj, Chair – Stanford University

Global 3G Standardization	(paper not received)
<i>K. Vaughn, AirTouch</i>	
Third Generation Mobile Telephone Systems and Turbo Codes	A-2
<i>M. Eroz, A. R. Hammons, Jr., F.W. Sun, L.N. Lee, K. Karimullah, Hughes Network Systems</i>	
Session 1 Paper on 3G Systems	(paper not received)
<i>H. Erikson, Ericsson</i>	
W-CDMA For IMT-2000 - <i>F. Adachi, M. Sawahashi, NTT DoCoMo</i>	A-4
UMTS/IMT2000 Based On Wideband CDMA.....	A-5
<i>G. Brismark, H. Olofsson, J. Knuttsson, M. Gustafsson, E. Dahlman, Ericsson</i>	
CDMA2000	(paper not received)
<i>E. Tiedemann, Qualcomm</i>	
A Global Operator's Path to Third Generation System - <i>S. Chia, AirTouch</i>	A-6
An Improved CDMA Slotted ALOHA Protocol for Packet Services in IMT-2000 Systems	J-066
<i>T. J. Kim, S.C. Bang, Electronics and Telecommunications Research Institute;</i>	
<i>Y. Han, School of Communication Engineering, Information and Communication University</i>	

Luncheon Speech

CDMA Experiences and Future - <i>H.G. Bahk, Hyundai Electronics</i>	A-3
---	-----

Session 2

Multimedia, Services and Applications - L. Milstein, Chair

Department of Electrical and Computer Engineering, University of California at San Diego

PACS System	(paper not received)
<i>D. Cox, Stanford University</i>	
Packetised Multimedia Urban Networks - <i>R. Steele, Southampton University</i>	A-8

Session 3

Satellite, Cellular and Personal Communications System - S. Glisic, Chair

Telecommunications Lab., University of Oulu

Future Integrated Mobile Wireless Services - Technologies and Issues - <i>A. Sastry, SRI</i>	A-10
Globalstar System Engineering: Challenges and Opportunities	(paper not received)
<i>P. Bowman, Globalstar</i>	
Evaluation of Operator-Body Effects on the Performance of a Portable Radio	J-059
<i>in Mobile Environments at 800 MHz - H. Chuang, F. L. Lin, National Cheng Kung University, Taiwan</i>	
ATM-Based Multimedia Mobile Access Network	J-030
<i>N. Shinagawa, YRP Mobile Telecommunications Key Technology Research Laboratories Ltd., Japan;</i>	
<i>K. Nakano, M. Sengoku, Niigata University</i>	
Wireless Universal Serial Bus: An Implementation of Small Area Wireless Network.....	J-013
<i>A. Mizutani, H. Ishikawa, Tokyo Research Lab, IBM, Japan</i>	
A Study of Reliability of Service Control Point.....	J-026
<i>T. Nishi, A. Kaiyama, S. Yoshimura, NTT DoCoMo</i>	

Session 4

Radio Channel Modeling, Modulation, Coding and DSP – *F. Adachi, Chair – NTT DoCoMo*

- Subband Space-Time Adaptive Processing for Mobile CommunicationsJ-020
K. Yang, Xidian University, China; Y. Zhang, Villanova University
- Pilot Symbol Assisted Channel Estimation with Wiener Filtering for DS-CDMAJ-023
M. Shimizu, K. Matsuyama, T. Dateki, H. Furukawa and Y. Tozawa, Fujitsu Labs, Japan
- Coded Parallel Combinatorial CDMA Systems Using Error-and-erasure DecodingJ-024
T. Kon, S. Sasaki, H. Kikuchi, Niigata University; G. Marubayashi, Soka University
- A Study of the Free Distance of Trellis-coded 32 Level APSK SchemesJ-037
E. Sato and S. Nakajima, Niigata Institute of Technology, Japan
- TCM-Based Hybrid ARQ Scheme Using Supplementary Coding for RetransmissionJ-042
J.X. Yu, Y. Li, H. Murata, S. Yoshida, Kyoto University, Japan

Session 5

Wireless Data Network - *H. Okada, Chair - Kansai University*

- Header Stealing Transmission Scheme of CSMA/CA
for High Data Rate Wireless Access Systems Using OFDMJ-014
M. Iizuka, H. Takanashi, M. Morikura, NTT Wireless Systems Labs, Japan
- Wireless Networks Based on Information Exchange Between Ants.....(paper not viewable)
I. Nakajima and S. Hama, Tokai University, Japan
- Reduction of the Influence of a Hidden Terminal with RAMCS/CSMAJ-029
*K. Mutsuura, S. Kubota, Y. Komiya, S. Ooshita, Shinshu University;
O. Akizuki, Miyagi University*
- Random Access Control for Integrated Wireless Voice and Packet Data CommunicationJ-040
*M. Ogawa, T. Hattori, Sophia University; and H. Kayama,
NTT Central Personal Comm. Network Inc.*
- DQRUMA/PAR Method for Multimedia Wireless Access NetworksJ-044
T. Yamashita, H. Okada, T. Matsumoto and T. Haruki, Kansai University, Japan
- Dynamic Error Control for Wireless ATM Networks.....J-045
K. Yamada, T. Tsuchiya, H. Okada, Kansai University, Japan

Session 6

Coding and Tools - *J. Farjh, Chair - Ericsson*

- Blind Multi-User Detection Using RBF Networks in CDMA ChannelsJ-053
I. Sohn, S.C. Gupta, Southern Methodist University
- Performance Analysis of DPSK Signals with Selection Combining
and Convolutional Coding in a Rayleigh Fading Channel.....(paper not viewable)
C.K. Ong, R. Hippenstiel, T.T. Ha, Naval Postgraduate School
- Alternative Subchannel Control Scheme of Orthogonal Coding Multi-Carrier CDMAJ-016
S. Watanabe, T. Sato and T. Abe, Niigata Institute of Technology
- Adaptive Optimal Filter with Multiple Finger Expansion for CDMA Mobile CommunicationsJ-009
*Q.S. Quek, H. Suzuki, Tokyo Institute of Technology;
K. Fukawa, NTT Mobile Communications Network Inc.*
- Multi-user Interference Canceller Using Carrier Phase Compensation in Fast Fading EnvironmentsJ-006
Y. Wada, YRP Mobile Telecommunications Key Technical Research Labs, Ltd., Japan
- An Efficient Adaptive Coding Scheme for Data Transmission
Over a Fading and Nonstationary Mobile Radio ChannelJ-058
D. Covarrubias, S. Ruiz, P. Gomez, J. Olmos, Polytechnic University of Catalonia, Spain

After Dinner Speech

- Soaring Through the Turbulent Skies of Wireless Destination Mobile Webtone.....J-031
A. Javed, Nortel

Day Two Keynote Speech

- Networks Behind a Multi-media World(paper not received)
S. Scholz, Siemens

Session 7

Networking and Transport – Y. Onozato, Chair – Gunma University

- Wireless Internet Access and MobilityJ-061
B. Rowland, Lucent Technologies
- A Scheduling Problem In Multihop NetworksJ-011
*K. Watanabe, Osaka Electro-Communication University; H. Tamura, Niigata Institute of Technology;
K. Nakano and M. Sengoku, Niigata University*
- A User-Information Offering Supplementary System for a Mobile Packet Data Network.....J-002
S. Ota, M. Ohashi, KDD R&D Labs
- M-RTP: Providing MBONE Video to Wireless Mobile HostsJ-051
K. Brown, California State University, Hayward

Session 8

Mobile Computing and Multi-Media - H. Tamura, Chair - NIIT

- A Proposal of Enhanced Mobile IP with Proxy Home Agent and Temporary Server Gateway.....J-039
H. Inukai, S. Takigami and T. Hattori, Sophia University, Japan
- Dynamic Segmentation Schemes for a Wireless Ad-Hoc Community Network.....J-017
M. Nozaki, K. Gyoda and M. Kawai, ATR Adaptive Comm. Research Labs, Japan
- A Routing Protocol on Mobile Multihop Networks.....J-032
Y. Hasegawa, Y. Fujita, K. Nakano, M. Sengoku, Niigata University, Japan

Luncheon Speech

- Meeting the Global Demand for Wireless Minute Migration and Creation(paper not received)
G. Zysman, Lucent Technologies

Session 9

Radio Technologies - K. S. Kwak, Chair - Inha University

- EDGE: Enhanced Data Rates for Global Evolution of GSM and IS-136 A-12
K. Zangi, Ericsson Inc.; A. Furuskar, M. Hook
- Cost Minimization in Configuring Telemetry Service Network Using WLL
S. K. Park, J.H. Yun, K.P. Yang, DACOMJ-056
- An Enhanced Spectral Analysis Tool (SAT) for Radio Frequency
Interference Analysis and Spectrum Management.....J-052
V.Y. Lo, JPL, Caltech
- Fade Mitigation Using Spread Time Technology - *J. Webb, CES Communications Ltd.*J-055

Session 10

Antenna Systems Sectorization - H. G. Bahk, Chair - Hyundai Electronics

- Overview of Space-Time Processing of the Next Generation(paper not received)
A. Paulraj, Stanford University
- Antenna Pattern Optimization for Base Stations in Urban Microcellular Systems A-14
V. Degli-Esposti, G. Falciaesca, University of Bologna, Italy;
M. Frullone, G. Riva, Fondazione Ugo Bordoni, Italy
- A Study on Reduction of Delay Spread Using Circular Polarized Beam-Tilting Antenna
for Indoor Wireless LANJ-008
T. Furuno, T. Taga, NTT Wireless Systems Labs, Japan
- Partial Interference Canceller with Adaptive Array Antenna for DS-CDMA Communication SystemsJ-018
M. Tsutsui, S. Kobayakawa, Y. Tanaka, Fujitsu Lab
- Importance of Balance-Fed Antenna for HandsetsJ-010
H. Morishita, National Defense Academy; K. Fujimoto, FAIS, University of Tsukuba

Session 11

Network Management - T. Hattori, Chair - Sophia University

- Estimation of Position and Velocity for a Mobile StationJ-067
W. Chung, S. H. Lee, Sung Kyun Kwan University, Korea
- Transformations of a Provably Secure Key Agreement Protocol Improving Its EfficiencyJ-043
S. Hirose and S. Yoshida, Kyoto University, Japan
- Design and Implementation of Wireless Agent CommunicationsJ-046
F. Kato, Y. Kondo, H. Ohtsuka and T. Tanaka, NTT Wireless Systems Labs, Japan
- Subrating Algorithm in Support Of Fixed and Hybrid Channel Assignment
Schemes for Improving Handoff Traffic in Highway MicrocellsJ-049
N. A. El-Fishawy, Faculty of Electronic Engineering, Menouf, Egypt

Session 12

CDMA Technology - K.S. Kwak, Chair - Korea, T. Sato, Chair - NIIT

- Variable Rate Performance for CDMA Multi-layer High-speed Data TransmissionJ-007
N. Iwakiri, YRP Mobile Telecommunications Key Tech. Research Labs Ltd., Japan
- Outage Probability of the Different Tiers of a Macrocell/Microcell DS-CDMA System
With Imperfect Power Control and SectorizationJ-038
Z. Jie, Y. Onozato and U. Yamamoto, I. Bazar, Gunma University, Japan

Session 13

Fundamental Research – M. Shinohara, Chair - NTT

- A Consideration on Mobile Multihop NetworksJ-033
K. Nakano, M. Sengoku, Niigata University; S. Shinoda, Chuo University
- On an Effective Marking with Synchronic DistanceJ-034
A. Ito, M. Sengoku, Niigata University; H. Tamura, T. Abe, Niigata Institute of Technology;
S. Shinoda, Chuo University
- A Performance of an Algorithm Using the Set Division on a Delivery ProblemJ-035
T. Namimatsu, M. Sengoku, Niigata University; H. Tamura,
T. Abe, Niigata Institute of Technology; S. Shinoda, Chuo University
- Mobile Position Tracking in CDMA-Based Cellular NetworksJ-064
C. Gao, E. Sousa, H. Alavi, University of Toronto

Session 14

Performance Modeling - *M. Sengoku, Chair - Niigata University*

- Estimating Teletraffic Loads and Designing Network Configurations for ITS ServicesJ-004
M. Shinohara, H. Yamamoto, NTT Multimedia Networks Labs;
M. Miyauchi, Chiba Institute of Technology
- Slot Reservation TDMA with Parallel Transmission for Mobile TerminalsJ-050
O. Akizuki, Miyagi University; T. Itagaki, K. Mutsuura, S. Kubota, S. Oshita, Shinshu University
- Integrated Telematic System for the Optimization of the Communications
in a Road Transport CompanyJ-063
J. F. Diez Higuera, F.J. Diaz Pernas, R. Mompó Gomez,
J. Lopez Coronado, University of Valladolid, Spain

Session 15

Antennas and Propagation - *Y. Yamada, Chair - NDA; H. Yamada, Chair - Niigata University*

- Radio Channel Measurement at 2.45GHz in Indoor Environment.....(paper not viewable)
M. Lienard, P. Degauque, University of Lille, France
- A Quarter-Wavelength Short-Circuit Antenna for Dual-Band Cellular Handsets.....(paper not received)
T. Amano, N. Chiba and H. Iwasaki, Toshiba Corp., Japan
- Electrical Beam Tilt Characteristics of a Dual-Frequency Base Station Antenna.....J-012
Y. Yamada, National Defense Academy;
Y. Ebine, M. Kijima, NTT Mobile Communication Network Inc.
- Electromagnetic Wave Propagation Down the Urban Canyons of High Rise BuildingsJ-015
H. Shirai, K. Hashiguchi, R. Sawai, M. Makino, A. Taguchi and S. Shinoda, Chuo University, Japan
- CMA Adaptive Array Performance in the Presence of Correlated SignalsJ-019
Y. Zhang, ATR Adaptive Communication Research Laboratories; K. Yang, Xidian University
- Inter-Array Correlation Neglecting Algorithm for Decision Feedback
Adaptive Array in Mobile Communication SystemsJ-021
S. Denno, ATR Adaptive Comm. Research Labs, Japan
- High-Resolution Indoor Propagation Estimation Using a 2-D Polarization
Averaging MUSIC Algorithm.....J-036
H. Yamada, Y. Igarashi, M. Yoshino and Y. Yamaguchi, Niigata University, Japan
- Characteristics of a CMA Adaptive Array with Inverted-F Antennas
Under the Consideration of Signal Polarization.....J-048
H. Yuan, T. Maeyama, T. Hamai, Kyocera DDI Institute of Future Telecommunications, Inc., Japan