

J. SATELLITE COMMUNICATION SYMPOSIUM

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 Satchandi Verma, *TRW Space & Electronic Group*
 Abbas Yongacoglu, *University of Ottawa, Canada*

Sponsoring Technical Committee:
Satellite and Space Communications
SCI Modulation and Coding for Satellite Communications

J01 MODULATION AND CODING FOR SATELLITE COMMUNICATIONS

Monday 29 April 2002
 8:50 - 10:20

Booth, 5th Floor

Session Chair: Iwao Sasase, *Keio University, Japan*

J01-1 Power and Bandwidth Efficient Modulation and Coding for Small Satellite Communication Terminals
 M. Tomlinson, M. Ambroze, *University of Plymouth, UK*, G. Wade, *University of Newcastle, Australia*

J01-2 Trellis-based Iterative Decoding of Block Codes for Satellite ATM
 U. Vilaipornsawai, *MIN. R. Soleymani, Concordia University, Canada*

J01-3 Turbo Equalizer Detection for GFSK Digital FM Signals
 T. Okada, Y. Iwanami, *Nagoya Institute of Technology, Japan*

J01-4 A Soft Output GMSK Demodulator Using a 4-Filter MLSE for Small BT Product
 K. Helen Hwang, *Titan Systems Corporation, USA*, Mark A. Wickert, *University of Colorado at Colorado Springs, USA*

J02 BROADBAND SATELLITE COMMUNICATION NETWORKS

Monday 29 April 2002
 10:40 - 12:10

Booth, 5th Floor

Session Chair: Ron P. Smith, *TRW Space & Electronics, USA*

J02-1 Application of Phased-Array Antenna Technology to the 21-GHz Broadcasting Satellite for Rain-Attenuation Compensation
 Yutaka Kawaguchi, Hitoshi Nakagawa, Shoji Tanaka, Tetsuya Yamada, *NHK Science and Technical Research Laboratories, Japan*

J02-2 Adaptive Power and Rate Control for Satellite Communications in Ka Band
 Milica Stojanovic, Vincent Chan, *Massachusetts Institute of Technology, USA*

J02-3 A Predictive Demand Assignment Multiple Access Protocol for Broadband Satellite Networks Supporting Internet Applications
 Zhifeng Jiang, Yuheng Li, Victor C. M. Leung, *The University of British Columbia, Canada*

J02-4 Resource Management and QoS Architectures in DAMA Satellite Access Networks
 Davide Adami, Rosario G. Garroppo, Stefano Giordano, *University of Pisa, Italy*

J03 SPECIAL WORKSHOP SESSION ON TRENDS IN PACKET ORIENTED MULTIMEDIA SATELLITE COMMUNICATIONS 1

Monday 29 April 2002
 13:40 - 15:10

Booth, 5th Floor

Session Chair: Takaya Yamazato, *Nagoya University, Japan*

J03-1 Trends in Satellite Communications
 Enrico Del Re, Luca Simone Ronga, Laura Pierucci, *Università degli Studi di Firenze, Italy*

J03-2 A Direct-to-Ground Architecture for Supporting Commercial Communications from the International Space Station
 Alex T. Nguyen, Xiangrong Zhou, Michael Hadjitheodosiou, John S. Baras, *University of Maryland at College Park, USA*

J03-3 System Design for Aeronautical Broadband Satellite Communications
 M. Werner, M. Holzbock, *German Aerospace Center (DLR), Germany*

J03-4 On-demand Access for Next Generation NASA Missions
 Lin Lin, Michael Hadjitheodosiou, *University of Maryland at College Park, USA*

J04 SPECIAL WORKSHOP SESSION ON TRENDS IN PACKET ORIENTED MULTIMEDIA SATELLITE COMMUNICATIONS 2

Monday 29 April 2002
 15:30 - 17:00

Booth, 5th Floor

Session Chair: Mario Marchese, *CNIT - DIST University of Genoa, Italy*

J04-1 Multimedia over Satellite—The European Space Agency Perspective
 Erling Kristiansen, Roberto Donadio, *European Space Agency, The Netherlands*

J04-2 Standardization Activities within Broadband Satellite Multimedia
 H. Skinnemoen, Nera SatCom, Norway, H. Tork, EMS, Technologies, Canada

J04-3 DESNET: A SCPC-DAMA Network in Satellite Telemedicine Applications
 Pietro Arcidiacono, Paolo Capodiecì, Alessandro Garibbo, Claudio Giarrizzo, Annamaria Raviola, *Marconi Mobile S.p.a., Italy*, Romolo Grasso, *Italian Army, Italy*

J04-4 The DAVID Satellite Mission of the Italian Space Agency: High Rate Data Transmission to Internet at W and Ka Bands
 C. Bonifazi, *Agenzia Spaziale Italiana, Italy*, M. Ruggieri, M. Pratesi, *Università di Roma "Tor Vergata", Italy*, A. Salomè, G. Varacalli, *Alenia Spazio, Italy*, A. Paraboni, *Politecnico di Milano, Italy*, E. Saggese, *Space Engineering, Italy*

J05 ADVANCED SATELLITE COMMUNICATION SYSTEMS

Tuesday 30 April 2002
 10:40 - 12:10

Booth, 5th Floor

Session Chair: Abbas Jamalipour, *University of Sydney, Australia*

J05-1 CDMA/PRMA Analytical Model for Voice Users in Satellite-UMTS Systems
 Abbas Ibrahim, Samir Tohme, *Ecole Nationale Supérieure des Télécommunications, France*

J05-2 A Packet-Switching Satellite Emulator: A Proposal about Architecture and Implementation
 Mario Marchese, Marco Perrando, *CNIT, Italy*

J05-3 Effectiveness of TCP SACK, TCP HACK and TCP Trunk over Satellite Links
 Lillykutty Jacob, K. N. Srijith, Huang Duo, A. L. Akkibebal, *National University of Singapore, Singapore*

J05-4 MAC Scheme for Beam Originated and Handover Data Traffic in LEO/MEO Mobile Satellite Systems
 Maria Gkizeli, Rahim Tafazolli, Barry Evans, *University of Surrey, UK*