Unclassified Program

Advanced Communication Technology (ACT)

10/23/2006
8:00:00 AM


Charles Graff

- Collaborative Signal Processing Using Radar Sensor Networks
  Qilian Liang, University of Texas at Arlington

- Simple BER Approximations for Generalized Selection Combining (GSC) over Rayleigh Fading Channels and its SNR Gap Properties
  Ning Kong, Broadcom Corporation

- Analytical BER Analysis of the Space Time Block Coded Systems in Frequency Selective Rician Fading Channels
  Tung Lai, University of Calgary
  Tuan Tran, University of Calgary
  Abu Sesay, University of Calgary

Adaptive binary signature design for code division multiplexing
Lili Wei, State University of New York at Buffalo
Stella N. Batalama, State University of New York at Buffalo
Dimitris A. Pados, State University of New York at Buffalo
Bruce Suter, Air Force Research Laboratory

The performance of space-time coded cooperative diversity in an asynchronous cellular uplink
Kanchan Vardhe, West Virginia University
Daryl Reynolds, West Virginia University

Performance of Generalized Diversity Combining System for Coded Transmissions
Zhengdao Wang, Iowa State University
Sang Wu Kim, Iowa State University

Random Waterfilling in a Clustered Multiuser OFDM System
Eun Ho Choi, The University of Texas at Austin
Wan Choi, The University of Texas at Austin
Baxter Womack, The University of Texas at Austin

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US-M-N - DVB Technologies and Video Communications

Sastri Kota

- Link Analysis of Commercial and Wideband Gapfiller Satellite (WGS) Satellites Using DVB-S2 with Variable Coding and Modulation (VCM)
  Bruce Bennett, DISA
  Daniel Hannan, SMDC/ARSTRAT
  James Marshall, MITRE Corp
  Richard Gibbons, MITRE Corp

- WGS Capacity Using the DoD Joint IP Modem (DVB-S2, RCS)
  Bruce Bennett, DISA
  Daniel Hannan, SMDC/ARSTRAT
  James Marshall, MITRE Corp
  Richard Gibbons, MITRE Corp

- DVB-S2 Technology Development for DoD IP SATCOM
  Kensig Quock, Booz Allen Hamilton
  Edwin Summers, Booz Allen Hamilton
  Michael Difrancisco, Booz Allen Hamilton
  Bruce Bennett, Defense Information Systems Agency

- Digital Video Broadcast Return Channel Satellite (DVB-RCS) Hub Installation and Integration for DISA and US CENTCOM
  Keith Dyson, Marshall Communications Corp
Bruce Bennett, Defense Information Systems Agency Falls Church, VA
Veloris (Sonny) Marshall, Marshall Communications Corp
James (Jake) Obi, Space and Naval Warfare Systems Center Charleston, South Carolina
Minh Nguyen Nguyen, Booz Allen Hamilton, Herndon, Virginia

Optimal Bandwidth Allocation for Scalable H.264 Video Transmission over MIMO Systems
Mohammad Jubran, University at Buffalo, SUNY
Manu Bansal, University at Buffalo, SUNY
Rohan Grover, University at Buffalo, SUNY
Lisimachos Kondi, University at Buffalo, SUNY

n-Channel Symmetric Motion-Compensated Multiple Description Coding for Video Communications over OFDM Networks
Yee Sin Chan, University of Miami
Pamela Cosman, University of California, San Diego
Laurence Milstein, University of California, San Diego

Bandwidth-Smart Unmanned Motion Video Systems in Distributed Networked Operations
David Keightley, Mediaware International Inc
Karen Gale, Mediaware International Inc

10/24/2006
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US-T-W - Adaptive Antenna Arrays for Military Communications
Kesh Bakhru

Improved MUSIC by Exploiting Both Real and Complex Sources
Feifei Gao, National University of Singapore
Yide Wang, University of Nantes
Arumugam Nallanathan, National University of Singapore

Anticipative Maximin Adaptive-Array Algorithm for Frequency-Hopping Systems
Don Torrieri, US Army Research Laboratory
Kesh Bakhru, Cubic Defense Applications

Direction Finding for Spread-Spectrum Systems with Adaptive Arrays
Don Torrieri, US Army Research Laboratory
Kesh Bakhru, Cubic Defense Applications

Relaying Strategies for Cooperative Networks with Minimal Node Cooperation
Leonard Cimini, University of Delaware
Lu Zhang, University of Delaware
Lin Dai, University of Delaware
Xiang-Gen Xia, University of Delaware

Lightweight Agile Beam Antennas for UAVs
Wyman Williams, EMS Technologies, Inc.
Chris Burton, EMS Technologies, Inc.

Small, Uni-planar Antenna Suitable for Body Wearable Applications
Rod Waterhouse, Pharad, LLC
Dalma Novak, Pharad, LLC

Reduced-Rank Multi-Antenna Cyclic Wiener Filtering for Interference Cancellation
Hong Zhang, ECE, NJIT
Ali Abdi, ECE, NJIT
Alexander Haimovich, ECE, NJIT

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US-T-X - Advanced Technologies in Networking and Applications
Cam Tran

Fuzzy Diffusion Analysis: Decision Significance and Applicable Scenarios
Manikanden Balakrishnan, New Mexico State University
Eric Johnson, New Mexico State University
Model Based Intelligence: Concepts, Architectures, and Features
David Kroenke, University of Washington
Rick Leenstra, Applied Technical Systems
Bruce Harlow, Rear Admiral, USN (JAG), Retired

Shared Data Services in Support of Communications and Network Modeling, Simulation, and Analysis
Cam Tran, SPAWARSYSCEN SAN DIEGO

Internet 3.0: Ten Problems with Current Internet Architecture and Solutions for the Next Generation
Raj Jain, Washington University in Saint Louis

Analysis of Mobility in Adaptive Data Rate Wireless Networks
Juha-Pekka Makela, University of Oulu, Finland
Timo Braysy, University of Oulu, Finland
Kaveh Pahlanvan, WPI, USA

SPACEWAY Now and In The Future: On-Board IP Packet Switching Satellite Communication Network
David Whitefield, Hughes
Rajeev Gopal, Hughes
Steven Arnold, Hughes

Comparative Simulative Analysis of WDM LANs for Avionics Platforms
Casey Reardon, University of Florida
John Profumo, University of Florida
Alan George, University of Florida

10/25/2006
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Cam Tran and Mark Stell

Developing an Efficient DMCIS with Next-Generation Wireless Networks
Al-Sakib Khan Pathan, Networking Lab, Computer Engineering Department, Kyung Hee University, Korea
Choong Seon Hong, Computer Engineering Department, Kyung Hee University, Korea

ADAPTIVE MULTICAST KEY MANAGEMENT FOR EFFICIENT WIRELESS TACTICAL NETWORKS
Brian Matt, SPARTA
Mathew Mundy, SPARTA

A proposal for a new measure analogous to entropy for bandwidth constrained, Control-Based Ad-hoc network design
Haruko Kawahigashi, Mitsubishi Electric Corporation
Yoshiaki Terashima, Mitsubishi Electric Corporation
Naoto Miyauchi, Mitsubishi Electric Corporation

Optimum Energy Allocation for Cooperative Networks with Differential Modulation
Woong Cho, University of Florida
Liuqing Yang, University of Florida

Tailoring DoD Af for Service Oriented Architectures
Fatma Dandashi, Mitre Corp.
Huei-Wan Ang, Mitre Corp.
Michael McFarren, Mitre Corp.

Layering As Optimization Decomposition: Questions and Answers
Mung Chiang, Princeton University
Steven Low, California Institute of Technology
A. Robert Calderbank, Princeton University
John Doyle, California Institute of Technology

The Joint Airborne Network Services Suite
Roger Trafton, The MITRE Corporation
Steven Pizzi, The MITRE Corporation

US-W-Y - Enabling Technologies for Optical Communications and...
**Networking**  
**Anurag Dwivedi**

**Design and demonstration of a novel Optical CDMA platform for avionics applications**  
Ivan Glesk, Princeton University  
Yue-Kai Huang, Princeton University  
Camille Bres, Princeton University  
Paul R. Prucnal, Princeton University

**Effects of EDFA Gain on WDM Fiber Optic Standard Frequency Distribution Link**  
Mehdi Shadaram, University of Texas at San Antonio  
John Summerfield, University of Texas at San Antonio  
Jennifer Bratton, University of Texas at San Antonio  
Paul Cotae, University of Texas at San Antonio

**Efficient routing for hybrid optical-CDMA and WDM all-optical networks**  
Mehdi Shadaram, University of Texas at San Antonio  
Ahmed Musa, University of Texas at El Paso  
Virgilio Gonzalez, University of Texas at El paso  
John Medrano, University of Texas at El paso  
Paul Cotae, University of Texas at San Antonio

**Critical technology gaps and potential solutions for mobile free space optical networking**  
Anurag Dwivedi, JHU/APL

**Optical PPM Combining Loss for Photon Counting Receivers**  
Kevin Quirk, Jet Propulsion Laboratory, California Institute of Technology  
Jonathan Gin, Jet Propulsion Laboratory, California Institute of Technology

**Modeling Optical Transport in Wireless Networks**  
James Farina, VPIsystems  
Andre Richter, VPIsystems  
Hadrien Louchet, VPIsystems  
Igor Koltchanov, VPIsystems

**Wavelength Correlation in Free Space Optical Communication Systems**  
Vijitha Weerackody, Johns Hopkins University/APL  
Roger Hammons, Johns Hopkins University/APL

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**1:45:00 PM**

Cam Tran and Mark Stell

**Performance Analysis of DRAMA: A Distributed Policy-based System for MANET Management**  
Cho-Yu Chiang, Telcordia Technologies

**A Methodology for Making Performance-Based Comparisons with Architectural Information**  
Gerald Doyle, Defense Information Systems Agency  
Elizabeth White, George Mason University

**TACFIRE: Enterprise Knowledge in Service Oriented Architecture**  
R. William Maule, Naval Postgraduate School  
Shelley Gallup, Naval Postgraduate School

**Proactive Multicast-Based Ipsec Discovery Protocol**  
Trung Tran, SPAWAR System Center San Diego

**Employing Ad-Hoc Networking with Aerial Communications Nodes for Wireless Tactical Experimentation**  
Yuen-Chong Chim, Defence Science and Technology Agency, Singapore  
Kwang-Wee Seah, Defence Science and Technology Agency, Singapore  
Soon-Lian Sim, Defence Science and Technology Agency, Singapore  
Ken-Leong Khoo, Defence Science and Technology Agency, Singapore  
Yuen-Sin Lee, Defence Science and Technology Agency, Singapore  
Ying-Cheung Lai, Defence Science and Technology Agency, Singapore  
Yu-Chiann Foo, Defence Science and Technology Agency, Singapore

**NATO TACOMS**  
Brian Hughes, DOD TACOMS International Project Office
**Information and Network Management (IANM)**

**10/23/2006**

**8:00:00 AM**

**US-M-E - Integrated Fault/Intrusion Detection and Correlation**

Ritu Chadha

*Impact of Sanitized Message Flows in a Cooperative Intrusion Warning System*

Peter Martini, University of Bonn  
Marko Jahnke, FGAN/FKIE  
Jens Toelle, FGAN/FKIE  
Nils Jentschen Felde, Ludwig-Maximilians University, Munich

*Monitoring Mobile Device Vitals for Effective Reporting (ER)*

J. Scot Ransbottom, D/Electrical Engineering & Computer Science, US Military Academy  
Grant A. Jacoby, D/Electrical Engineering & Computer Science, US Military Academy

*Creating and Maintaining a Good Intrusion Detection Hierarchy in Dynamic Ad Hoc Networks*

Anthony McAuley, Telcordia  
Kyriakos Manousakis, Telcordia  
Richard Gopaul, ARL  
Dan Sterne, SPARTA  
Peter Phyus, SPARTA

*Integrating Intrusion Detection and Fault Localization in MANETS*

Dan Sterne, Sparta  
Simon Tsang, Telcordia  
Maitreya Natu, University of Delaware  
Dave Balenson, Sparta  
Petros Mouchtaris, Telcordia  
Adarshpal Sethi, University of Delaware

*Understanding and Evaluating the Impact of Sampling on Anomaly Detection Techniques*

Georgios Androullakis, National Technical University of Athens  
Vassilis Chatzihannakis, National Technical University of Athens  
Symeon Papavassiliou, National Technical University of Athens  
Mary Grammatikou, National Technical University of Athens  
Basil Maglaris, National Technical University of Athens

*Packet Scheduling Against Stepping-Stone Attacks*

Ting He, Cornell University  
Parvathinathan Venkitasubramaniam, Cornell University  
Lang Tong, Cornell University

**US-M-Q - Implementing Military Quality of Service I (Warfighter Centric)**

Deborah Farroha

*Adaptive RS Code for Message Delivery Over Encrypted Military Wireless Networks*

Yan Grushovsky, General Dynamics C4 Systems  
George Elmasry, General Dynamics C4 Systems  
Steven Argentiery, General Dynamics C4 Systems  
Ray Lussier, General Dynamics C4 Systems

*Adaptive Statistical QoS: Learning Parameters to Maximize End-to-End Network Goodput*
Papers are not necessarily listed in presentation order

Scott Evans, GE Research
Ping Liu, GE Research
Asavari Rothe, GE Research
Kai Goebel, GE Research
Weizhong Yan, GE Research
Ishan Weerakoon, Lockheed Martin
Martin Egan, Lockheed Martin

**An RSVP Surrogate for Guaranteed Bandwidth for Tactical Communications**
Benjamin Oshlag, The MITRE Corporation
Dylan Pecelli, The MITRE Corporation
Steven Pizzi, The MITRE Corporation

**Service Level Agreements and QoS Delivery in Mission Oriented Networks**
Bharat Doshi, University of Massachusetts, ECE Department
Sherry Wang, The Johns Hopkins University / Applied Physics Laboratory
Paul Kim, The Johns Hopkins University / Applied Physics Laboratory
Burt Liebowitz, The MITRE Corporation
Kun Park, The MITRE Corporation
Deborah Goldsmith, The MITRE Corporation

**GIG/DISN Quality of Service and Service Level Agreement Management for Integrated Global Wireless Tactical Services to the Deployed Warfighters**
Syed Shah, Defense Information Systems Agency
Bruce Bennett, Defense Information Systems Agency
Pamela Hemmings, Booz Allen Hamilton

**QoS Enhancements to BGP in Support of Multiple Classes of Service**
Lotfi Benmohamed, JHU/APL
Chieh-Jan Mike Liang, JHU/CS
Eric Naber, JHU/APL
Andreas Terzis, JHU/CS

**Cross-Layer Design Challenges for Quality of Service Guarantees for Satellite Networks**
Kota Sastri, Harris Corporation

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**US-M-R - Implementing Military Quality of Service II (Next Generation Military Communications Centric)**
Sam Farroha

**Supporting Real-Time Video in SCTP Networks**
Ahmed Abd El Al, City University of New York
Tarek Saadawi, City University of New York
Myung Lee, City University of New York

**QoS Support in Multi-link and Multi-rate Systems**
Harold Zheng, Johns Hopkins University Applied Physics Lab
Sherry Wang, Johns Hopkins University Applied Physics Lab
Christopher Rogers, Johns Hopkins University Applied Physics Lab
Robert Nichols, Johns Hopkins University Applied Physics Lab

**Concurrent Quality of Service Requirements: A Comparative Analysis of Routing Path Selection Methods**
Subramaniam Kandaswamy, Johns Hopkins University, Applied Physics Lab

**Increasing TCP Throughput with an Enhanced Control Plane**
Andy Bavier, Princeton University
Larry Peterson, Princeton University
Jack Brassil, HP Laboratories
Rick McGeer, HP Laboratories
David Reed, HP Laboratories
Puneet Sharma, HP Laboratories
Praveen Yalagandula, HP Laboratories
Alex Henderson, Anagran Inc.
Lawrence Roberts, Anagran Inc.
Stephen Schwab, Sparta Inc.
Roshan Thomas, Sparta Inc.
Erik Wu, Sparta Inc.
Brian Mark, George Mason University
Ben Zhao, UC Santa Barbara
Anthony Joseph, UC Berkeley

Papers are not necessarily listed in presentation order
Flow based CAC with MLPP
Erlend Knutsen, Applica as
Andreas Hafslund, Thales Norway

Configuring IP QoS mechanisms for graceful degradation of real-time services
Jonathan Pitts, Queen Mary, University of London
John Schormans, Queen Mary, University of London

QoS mechanisms for opaque MANETs
Alexander Poylisher, Telcordia Technologies
Farooq Anjum, Telcordia Technologies
Latha Kant, Telcordia Technologies
Ritu Chadha, Telcordia Technologies

10/24/2006
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US-T-E - IPv6 - Practice
Larry Levine

Multi-Level Security, Geographically Targeted Information Dissemination Using IPv6
Cynthia Martin, SI International
Jeffrey Dunn, RGII

An Approach to IPv4 to IPv6 Transition in Wireless Networks
Ed Jankiewicz, SRI International
Kwai-Fung Chan, US Army CERDEC S&TC
Dave Green, Command Information, Inc.

IPv6 for Coalition Network Enabled Capability
Rob Goode, NC3A
Patrice Guivarch, DGA/CELAR
Peter Sevenich, FGAN/FKIE

IPv6 Transition Techniques for Legacy Application
Ashutosh Dutta, Telcordia Technologies
Aileen Cheng, Telcordia
Dana Chee, Telcordia
Tony McAuley, Telcordia
Bryan Lyles, Telcordia
James Alfieri, Telcordia
Bob Horgan, Telcordia

Notional Security Architectures for Department of Defense (DoD) Networks Transitioning to Internet Protocol version 6 (IPv6)
Jeffrey Dunn, RG2, Inc.
Cynthia Martin, SI International

GBS Integration with IPv6: A Pilot Implementation
Bruce Bennett, Defense Information Systems Agency
Kathir Ramaswami, Booz Allen Hamilton

IPv6 Application Performance Characterization Using A Virtual/Live Testbed
Ranga Reddy, Space & Terrestrial Communications Directorate, Ft. Monmouth, NJ
Richard Mayo, Space & Terrestrial Communications Directorate, Ft. Monmouth, NJ

US-T-Q - Sensor Networks - Information Processing and Data Fusion I
I-Jeng Wang

Sensor Registration in a Sensor Network by Continuous GRASP
Michael Hirsch, Raytheon and University of Florida (ISE Dept.)
Panos Pardalos, University of Florida (ISE Dept.)
Mauricio Resende, AT&T Labs Research

Sensor Scheduling in Multiple Parameters Estimation under Energy Constraint
yi wang, Department of Electrical Engineering and Computer Science, University of Michigan, Ann Arbor, MI 48109
Mingyan Liu, Department of Electrical Engineering and Computer Science, University of Michigan, Ann Arbor, MI 48109
Demosthenis Teneketzis, Department of Electrical Engineering and Computer.
Science, University of Michigan, Ann Arbor, MI 48109

On Heterogeneous Sensor Node Placement
Santosh Pandey, Auburn University
Prathima Agrawal, Auburn University

A Comparison of Stationary and Cyclostationary TDOA Estimators
Daniel Gisselquist, US Air Force

Multi-modal calibration of surveillance sensor networks
Min Ding, Department of Computer Science, the George Washington University
Andreas Terzis, Department of Computer Science, Johns Hopkins University
I-Jeng Wang, Johns Hopkins University Applied Physics Laboratory
Dennis Lucarelli, Johns Hopkins University Applied Physics Laboratory

An Error Propagation Aware Algorithm for Precise Cooperative Indoor Localization
Nayef Alsindi, Worcester Polytechnic Institute
Kaveh Pahlavan, Worcester Polytechnic Institute
Bardia Alavi, Worcester Polytechnic Institute

MANET Localization via Multi-node TOA-DOA Optimal Fusion
Seyed A. Zekavat, Michigan Technological University
Zhonghai Wang, Michigan Technological University

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US-T-F - IPv6 - Theory

IPv6 Stateless Address Autoconfiguration Considered Harmful
Janne Lindqvist, Helsinki University of Technology, Telecommunications Software and Multimedia Laboratory

Applying Service Class Aggregates to the Global Information Grid
Kevin Sheu, Booz Allen Hamilton
Chris Christou, Booz Allen Hamilton
William Hall, Joint Terminal Engineering Office

PA-FMIP: A Mobility Prediction Assisted Fast Handover Protocol
Andre Bergh, University of Cape Town
Neco Ventura, University of Cape Town

Mobile IPv6 for Netcentric Warfare
Carl Williams, SI International
Derya Cansever, SI International
Junaid Islam, Caspian

IPv6 versus IPv4 Interworking with QoS Guarantees
Mario Marchese, University of Genoa
Annamaria Raviola, Selex Communications S.p.A., a Finmeccanica Company
Maurizio Mongelli, University of Genoa
Vincenzo Gesmundo, Selex Communications S.p.A., a Finmeccanica Company
Alessandro Garibbo, Selex Communications S.p.A. a Finmeccanica Company

Personal Information based IP Autoconfiguration In Tactical Mobile Ad-Hoc Network
Yeonkwon Jeong, Information and Communications University
Hyunjun Choi, Information and Communications University
JoongSoo Ma, Information and Communications University

US-T-R - Sensor Networks - Information Processing and Data Fusion II

Power Allocation in Distributed Detection with Wireless Sensor Networks
Xin Zhang, Princeton University
H. Vincent Poor, Princeton University
Mung Chiang, Princeton University

Fault Tolerant Three Dimensional Environment Monitoring Using Wireless Sensor Networks
Yuan Guo, Electrical and Computer Engineering Dept., University of Florida
Janise McNair, Electrical and Computer Engineering Dept., University of Florida

Energy-Efficient Cluster-based Distributed Estimation in Wireless Sensor Networks
Junlin Li, Georgia Institute of Technology
Ghassan AlRegib, Georgia Institute of Technology
Error Exponents for Target-Class Detection in a Sensor Network
Saswat Misra, Army Research Laboratory
Lang Tong, Cornell University
Tony Ephremides, University of Maryland

Sensor network design for underwater surveillance
Lotfi Benmohamed, JHU/APL
Phil Chimento, JHU/APL
Bharat Doshi, JHU/APL
Robert Henrick, JHU/APL
I-Jeng Wang, JHU/APL

Energy Efficient Distributed Detection Via Multi-hop Transmission in Sensor Networks
Wenjun Li, North Carolina State University
Huaiyu Dai, North Carolina State University

US-T-T - Military Precedence & Preemption for the GIG
Brian Choi and Robert Cole

Tactical Frequency Management in QoS-Enabled Networks
Gregory Wagner, Inception Consulting
Susan Millender, US Army, PM WIN-T

Requirements and Architectural Analysis for Precedence capabilities in the Global Information Grid
Bassam S. Farroha, Johns Hopkins University - Applied Physics Lab
Antonio DeSimone, OASD - NII
Burt Liebowitz, MITRE

Precedence, Preemption and the IETF
Kimberly King, SAIC

Flow Based Priority and Preemption (P&P) Methods without a Priori Signaling
Derya Cansever, SI International
Junaid Islam, Caspian Networks

Dynamic Changes in Subscriber Behavior and their Impact on the Telecom Network in Cases of Emergency
Ahmad Jrad, Lucent Technologies
Gerard O’Reilly, Lucent Technologies
Stephen Conrad, Sandia National Laboratories
Andjelka Kelic, Sandia National Laboratories
Steven Richman, Lucent Technologies

Precedence Based Admission Control and Preemption in IP Networks
Kwok Ho Chan, Nortel Networks

Precedence and Quality of Service (QoS) Handling in IP Packet Networks
Deborah Goldsmith, MITRE Corporation
Burt Liebowitz, MITRE Corporation
Kun Park, MITRE Corporation
Sherry Wang, JHU/APL
Bharat Doshi, University of Massachusetts

10/25/2006
8:00:00 AM
US-W-u - Policy Based Network Management
Xi Jiang

Policy-Based Management of the Future Airborne Network via Peer-to-Peer Networking
Steven Pizzi, The MITRE Corporation
Elizabeth Idhaw, The MITRE Corporation
Lucas Lam, The MITRE Corporation
Dylan Pecelli, The MITRE Corporation

A Cautionary Note About Policy Conflict Resolution
Ritu Chadha, Telcordia

A Service Oriented Framework for Policy-Based Management of Maritime Mobile Networks
9:45:00 AM

**US-W-U - Networking Over Radio Frequencies**

Michael Rupar

**Performance Analysis of BPSK with Errors and Erasures Decoding to Mitigate the Effects of Pulse-Noise Interference**
Clark Robertson, Naval Postgraduate School
Georgios Zouros, Naval Postgraduate School

**Internet Protocol (IP) - Based Range Extension**
Ferit Yegenoglu, Lockheed Martin

**High Altitude Router and Relay for Over-the-Horizon Networks**
Jonathan Doffoh, Naval Research Lab
Ray Merieish, Naval Research Lab
Reed Porada, Naval Research Lab
Mike Rupar, Naval Research Lab
Ivan Corretjer, Naval Research Lab

**Major Improvements in TCP Performance over Satellite and Radio**
Lawrence Roberts, Anagran Inc.

1:45:00 PM

**US-W-T - Information Assurance in Military Communications**

Mike Kurdziel

**Integrated Services Provisioning Across Cryptographic Boundaries**
Arun Ayyagari, The Boeing Company
Orlie Brewer, The Boeing Company
Michael Foster, The Boeing Company

**Integrating Header Compression with IPsec**
Etzel Brower, Booz Allen Hamilton
LaTonya Jeffress, Booz Allen Hamilton
Jonah Pezeshki, Booz Allen Hamilton
Rohan Jasani, Booz Allen Hamilton
Emre Ertekin, Booz Allen Hamilton

**Secure Clustering in DSN with Key Predistribution and WCDS**
Al-Sakib Khan Pathan, Kyung Hee University
Choong Seon Hong, Kyung Hee University

**Secure Neighborhood Routing Protocol**
Ajay Jadhav, New Mexico State University
Eric Johnson, New Mexico State University

**Scalable Link-layer Key Agreement In Sensor Networks**
Yun Zhou, University of Florida
Yuguang Fang, University of Florida

**A Cross-layer approach to detect Jamming attacks in wireless ad hoc networks**
Ramalingam Sridhar, University at Buffalo (SUNY)
Geethapriya Thamilarasu, University at Buffalo (SUNY)
Sumita Mishra, CompSys Technologies Inc.

**Multi-Level Security for Service-Oriented Architectures**
Harigovind Ramasamy, IBM Zurich Research Laboratory
Matthias Schunter, IBM Zurich Research Laboratory

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**US-W-U - Networking Over Radio Frequencies**

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Eric Johnson, New Mexico State University

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**A Cross-layer approach to detect Jamming attacks in wireless ad hoc networks**
Ramalingam Sridhar, University at Buffalo (SUNY)
Geethapriya Thamilarasu, University at Buffalo (SUNY)
Sumita Mishra, CompSys Technologies Inc.

**Multi-Level Security for Service-Oriented Architectures**
Harigovind Ramasamy, IBM Zurich Research Laboratory
Matthias Schunter, IBM Zurich Research Laboratory

Papers are not necessarily listed in presentation order
A Mobile-to-Grid Gateway Model and Load Scheduling Scheme for e-Health Service in Grid
Youngjoo Han, Information and Communications University
Chan-Hyun Youn, Information and Communications University
Hyewon Song, Information and Communications University

End-to-End Enterprise Monitoring Framework for NetOps
Paul Hershey, HAI, A Raytheon Company
Donald Runyon, HAI, A Raytheon Company
Yangwei Wang, DISA

A proposal for coalition networking in dynamic operational environments
Ran Atkinson, Extreme Networks
Manish Lad, University College London
Saleem Bhatti, University of St. Andrews
Stephen Hailes, University College London

Resource Allocation Over Grid Computing Military Networks
Igor Bisio, University of Genoa
Maurizio Mongelli, University of Genoa
Mario Marchese, University of Genoa
Annamaria Raviola, Selex Communications

Stateless and Configurationless QoS Approach for the Joint Airborne Networks - Tactical Edge
Phong Khuu, BAE Systems
Kui Fan, BAE Systems
Michael Weber, BAE Systems
Brian Loop, BAE Systems
Anand Trivedi, OPNET Technology Inc.

Network Security (NS)

10/23/2006
8:00:00 AM
US-M-O - Encryption Techniques and Signal Processing
Fran Zenzen

Reducing the Length of Shannon-Fano-Elias Codes and Shannon-Fano Codes
Xiaoyu Ruan, North Dakota State University
Rajendra Katti, North Dakota State University

A Novel Stream Cipher for Cryptographic Applications
David M. Horan, Cork Institute of Technology
Richard A. Guinee, Cork Institute of Technology

The Secure Communication Interoperability Protocol (SCIP) Over an HF Radio Channel
Michael Kurdziel, Harris Corporation
William Fyerman, Harris Corporation
Jack Akervann, Harris Corporation

Investigation of Fault Propagation in Encryption of Satellite Images Using the AES Algorithm
Roohi Banu, Surrey Space Centre, university of Surrey, UK
Tanya Vladimirova, Surrey Space Centre, University of Surrey, UK

An Integrated Radio Frequency Design Environment (IRFDE)
Donya He, BAE Systems

Multiuser CDMA Signal Extraction
Ming Li, State University of New York at Buffalo
Stella N. Batalama, State University of New York at Buffalo
Dimitrios A. Pados, State University of New York at Buffalo
John D. Matyas, Air Force Research Laboratory

Public Key Cryptographic System using Mandelbrot Sets
Suthikshn Kumar, PESIT

1:45:00 PM
Papers are not necessarily listed in presentation order

US-M-F - Discovery, Security, Mobility, and Performance in Virtual Private Networks
Bharat Doshi

A Performance Comparison Study of End-to-End Congestion Control Protocols over MIMO Fading Channels
Homayoun Yousefi'zadeh, Boeing
Wojtek Furmanski, Boeing
Amir Habibi, UC, Irvine

Securing the Global Information Grid Routing Control Plane
Victor Chao, Booz Allen Hamilton
Christos Christou, Booz Allen Hamilton
Julie Tarr, Office of the Assistant Secretary of Defense / Networks and Information Integration (OASD/NII)

Modeling and Simulation of HAIPE
Mohammad Mirhakkak, MITRE Corp
Phong Ta, MITRE
Gary Comparetto, MITRE Corp
Victoria Fineberg, DISA

BGP Rerouting Solutions for Transient Routing Failures and Loops
Jian Qiu, Univ. of Massachusetts, Amherst
Lixin Gao, Univ. of Massachusetts, Amherst
Feng Wang, Univ. of Massachusetts, Amherst

Applying 4364 Virtual Private Networks to the Global Information Grid
Emre Ertekin, Booz Allen Hamilton
Christos Christou, Booz Allen Hamilton

TCP-VAR: a fair, robust ad hoc network TCP based on variance feedback
Jiwei Chen, UCLA
Mario Gerla, UCLA
Yeng-Zhong Lee, UCLA
Medy Sanadidi, UCLA

10/24/2006
8:00:00 AM

US-T-G - Information Security and Network Countermeasure Mechanisms
Stamatios Kartalopoulos

Catastrophic Critical Point Detection Prediction (CCPDP) Software Protocol Development And Performance Evaluation For Homeland Security And Theater Mis
Carol Niznik, NW SYSTEMS

Information Security Implications of Autonomous Systems
Zia Hayat, University of Southampton
Jeff Reeve, University of Southampton
Chris Boutle, BAE SYSTEMS
Martin Field, BAE SYSTEMS

Authentication Mechanisms for Call Control Message Integrity and Origin Verification
Cynthia Martin, SI International
Jeffrey Dunn, RGI

Modeling the Spread of Internet Worms Via Persistently Unpatched Hosts
Warren Debany, Air Force Research Laboratory, Information Grid Division

Policy-Based Management and Sharing of Sensitive Information Among Government Agencies
Christopher Johnson, IBM
Jerry Kiernan, IBM
Tryg Ager, IBM

Optical Network Security: Channel Signature ID
Stamatios Kartalopoulos, The University of Oklahoma

Optical Network Security: Countermeasures in View of Channel Attacks
Stamatios Kartalopoulos, The University of Oklahoma
10/25/2006
8:00:00 AM

**US-W-C - Security Technologies and Risk Assessment for Homeland Security Applications**

Peter Sholander

NSTAC
Thad Odderstol, DHS/NCS
David Barron, BellSouth Corp

Evidence-Based Techniques for Evaluating Cyber Protection Systems for Critical Infrastructures
John Darby, Sandia National Laboratories
James Phelan, Sandia National Laboratories
Peter Sholander, Sandia National Laboratories
Bryan Smith, Sandia National Laboratories
Andrew Walter, Sandia National Laboratories
Gregory Wyss, Sandia National Laboratories

Using Attack and Protection Trees to Analyze Threats and Defenses to Homeland Security
Kenneth Edge, Air Force Institute of Technology
George Dalton, Air Force Institute of Technology
Richard Raines, Air Force Institute of Technology
Robert Mills, Air Force Institute of Technology

An Evaluation of the Susceptibility of eLORAN to Intentional Interference
David J. Chadwick, The MITRE Corporation

Situation Monitoring and Analysis of Security Risk for Networked Services
Douglas Wiemer, Alcatel
Brad McFarlane, Alcatel
Christophe Gustave, Alcatel
Stanley Chow, Alcatel
Jean-Marc Robert, Ecole de Technologie Superieure

Automated Discovery of Unknown Unknowns
Patrick Talbot, Northrop Grumman

Validating and Restoring Defense in Depth Using Attack Graphs
Richard Lippmann, MIT Lincoln Laboratory
Kyle Ingols, MIT Lincoln Laboratory
Chris Scott, MIT Lincoln Laboratory
Keith Piwowarski, MIT Lincoln Laboratory
Kendra Kratkiewicz, MIT Lincoln Laboratory
Mike Artz, MIT Lincoln Laboratory
Robert Cunningham, MIT Lincoln Laboratory


Harold Zheng

On the Performance of A Distributed Key Management Scheme in Heterogeneous Wireless Sensor Networks
Kejie Lu, UPR-Mayaguez
Yi Qian, UPR-Mayaguez

Securing Communication of Dynamic Groups in Dynamic Network-Centric Environments
Roger Khazan, MIT Lincoln Laboratory
Robert Figueiredo, MIT Lincoln Laboratory
Ran Canetti, IBM T.J.Watson Research Center
Cynthia McLain, MIT Lincoln Laboratory
Robert Cunningham, MIT Lincoln Laboratory

Kui Ren, Worcester Polytechnic Institute
Wenjing Lou, Worcester Polytechnic Institute
Patrick J. Moran, AirSprite Technologies, Inc., Northboro, MA

Location Verification Using Communication Range Variation for Wireless Sensor Networks
Papers are not necessarily listed in presentation order

Dawood Al-Abri, University of Florida
Janise McNair, University of Florida
Eylem Ekici, Ohio State University

DSPM: Dynamic Security Policy Management for Optimizing Performance in Wireless Networks
Avesh Agarwal, North Carolina State University
Wenye Wang, North Carolina State University

Increasing Flexibility in Network Visibility and Intrusion Response
Patrick Allen, General Dynamics Advanced Information Systems

Networking with Secrecy Constraints
Parvathinathan Venkitasubramaniam, Cornell University
Ting He, Cornell University
Lang Tong, Cornell University

1:45:00 PM
Sherry Wang

Physical Layer Intrusion Detection in Wireless Networks
A. A. Tomko, JHU/APL
C. J. Rieser, JHU/APL
L. H. Buell, JHU/APL

Understanding Dynamic Denial of Service attacks in Mobile Ad Hoc Networks
Fei Xing, North Carolina State University
Wenye Wang, North Carolina State University

ROSETTA: Robust and Secure Mobile Target Tracking in a Wireless Ad Hoc Environment
Satyajayant Misra, Computer Science and Engineering Department, Arizona State University
Guoliang Xue, Computer Science and Engineering Department, Arizona State University
Sarvesh Bhardwaj, Electrical Engineering Department, Arizona State University

Defending against Physical Destruction Attacks on Wireless Sensor Networks
Yanchao Zhang, University of Florida
Yuguang Fang, University of Florida

Detecting Wormhole Attacks in Mobile Ad Hoc Networks through Protocol Breaking and Packet Timing Analysis
Maria Gorlatova, University of Ottawa
Ramiro Liscano, University of Ottawa
Maoyu Wang, Communications Research Centre
Louise Lamont, Communications Research Centre
Peter Mason, Defence Research & Development Canada

Intelligent Jamming in Wireless Networks with Applications to 802.11b and Other Networks
David Thuente, North Carolina State University
Mithun Acharya, North Carolina State University

Intrusion Detection Schemes for Sparsely Connected Ad Hoc Networks
Mooi Choo Chuah, Lehigh University
Peng Yang, Lehigh University

Coding, Modulation and Signal Processing (CMASP)

10/23/2006
1:45:00 PM
US-M-P - Network Science
Ananthram Swami and Brian Sadler

An Analytical Framework for The Characterization of Link Dynamics in MANETs
J.J. Garcia-Luna-Aceves, UC Santa Cruz/PARC
Hamid Sadjadpour, UC Santa Cruz
Xianren Wu, UC Santa Cruz

**Decode-and-Forward Cooperative Networks with Multiuser Diversity**
Zhihang Yi, Queen's University
Il-Min Kim, Queen's University

**The Throughput Order of Ad Hoc Networks Employing Network Coding and Broadcasting**
Junning Liu, University of Massachusetts
Dennis Goeckel, University of Massachusetts
Donald Towsley, University of Massachusetts

**PERFORMANCE OF NETWORK CODING IN AD HOC NETWORKS**
Joon-Sang Park, University of California, Los Angeles
Desmond Lun, University of Illinois at Urbana-Champaign
Fabio Soldo, Politecnico di Torino
Mario Gerla, University of California, Los Angeles
Muriel Medard, Massachusetts Institute of Technology

**Randomized algorithms for Cross-Layer Network Control**
Ness Shroff, Purdue University
Gaurav Sharma, Purdue University
Ravi Mazumdar, University of Waterloo

**Enabling Source Channel Separation for Communication Networks: The Uplink Case**
Sriram Sridharan, University of Texas Austin
Sriram Vishwanath, University of Texas, Austin
Wei Wu, wwu@ece.utexas.edu

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**10/24/2006**

**8:00:00 AM**

**US-T-I - Sensor Networks: Signal Processing and Communication Perspectives**
Qing Zhao

**Radar Sensor Networks for Automatic Target Recognition with Delay-Doppler Uncertainty**
Qilian Liang, University of Texas at Arlington

**Increasing Sensor Measurements to Reduce Detection Complexity in Large-Scale Detection Applications**
Yaron Rachlin, Carnegie Mellon University
Narayanaswamy Balakrishnan, Carnegie Mellon University
Rohit Negi, Carnegie Mellon University
John Dolan, Carnegie Mellon University
Pradeep Khosla, Carnegie Mellon University

Kyoung-Lae Noh, Texas A&M University
Qasim Chaudhari, Texas A&M University
Erchin Serpedin, Texas A&M University
Bruce Suter, AFRL, Rome, NY

**Application of Gibbs Sampler for Clock Synchronization in RBS-Protocol**
Ilkay Sari, Texas A&M University
Erchin Serpedin, Texas A&M University
Bruce Suter, AFRL/IFGC, Rome, NY

**Distributed Detection in the Presence of Byzantine Attack in Large Wireless Sensor Networks**
Stefano Marano, University of Salerno
Vincenzo Matta, University of Salerno
Lang Tong, Cornell University

**Synchronization in Sensor Networks: An Overview**
Brian Sadler, Army Research Lab
Ananthram Swami, Army Research Lab

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**US-T-K - Multicarrier Spread Spectrum**
Dave Matolak

INTERFERENCE SUPPRESSION IN MC-CDMA SYSTEMS BY JOINT TRANSCIEVER DESIGN
Kyoungnam Seo, University of Florida
Liqing Yang, University of Florida

Subchannel Allocation for Multicarrier CDMA with Adaptive Frequency Hopping and Decorrelating Detection
Tao Jia, Department of Electrical and Computer Engineering, NC State University
Alexandra Duel-Hallen, Department of Electrical and Computer Engineering, NC State University

Asynchronous Multiuser Performance Analysis of Differential Frequency Hopping System Over Rayleigh-fading Channel
Zhi Chen, University of Electronic Science and Technology of China

Anti-Jamming Performance of Spectrally Shaped Generalized MC-DS-SS with Dual Band Combining
Wenhui Xiong, Ohio University
David W. Matolak, Ohio University

Multicarrier symbol design for HF transmissions from Antarctica based on real channel measurements
Ricard Aquilué, Enginyeria La Salle
Pau Bergada, Enginyeria La Salle
Joan Lluis Pijoan, Enginyeria La Salle
Marc Deumal, Enginyeria La Salle

Soft-Chip Combining MIMO Multicarrier CDMA Antijam System
Galib M. M., Georgia Institute of Technology
Gordon Stuber, Georgia Institute of Technology

US-T-M - Analysis of Sensor, Acoustic, Low Power and Low Bandwidth Networks
Steven Grainger

A Robust Power-Aware Routing Algorithm for Wireless Sensor Networks
Zhi Sun, Dept. of Electronic Engineering, Tsinghua Univ.
Rong Yu, Dept. of Electronic Engineering, Tsinghua Univ.
Shunliang Mei, Dept. of Electronic Engineering, Tsinghua Univ.

Performance Modeling and Analysis of the IEEE 802.11 Distributed Coordination Function in Presence of Hidden Stations
Fu-Yi Hung, CAIP Center, ECE Department, Rutgers University
Ivan Masic, CAIP Center, ECE Department, Rutgers University

Optimal Cluster Size for Underwater Acoustic Sensor Networks
Liang Zhao, University of Texas at Arlington
Qilian Liang, University of Texas at Arlington

Energy-Efficient Geographic Routing in Environmentally Powered Wireless Sensor Networks
Kai Zeng, Worcester Polytechnic Institute
Wenjing Lou, Worcester Polytechnic Institute
Kui Ren, Worcester Polytechnic Institute
Patrick J. Moran, AirSprite Technologies, Inc.

Energy-Efficient TDMA with Quantized Channel State Information
Antonio Marques, Rey Juan Carlos University, Madrid, Spain
Xin Wang, University of Minnesota, USA
Georgios Giannakis, University of Minnesota, USA

Joint Distributed Compression and Encryption of Correlated Data in Sensor Networks
Mohamed Haleem, Stevens Institute of Technology
Chetan Mathur, Stevens Institute of Technology
Koduvayoor Subbalakshmi, Stevens Institute of Technology

Constant Envelope OFDM In Multipath Rayleigh Fading Channels
Steve Thompson, University of California, San Diego
Michael Geile, Nova Engineering
James Zeidler, University of California, San Diego
John Proakis, University of California, San Diego

1:45:00 PM
US-T-J - Sensor Networks: Networking Perspectives
Qing Zhao

Joint Optimization of Relay-Precoders and Decoders with Partial Channel Side Information in Cooperative Networks
Zhihang Yi, Queen's University
II-Min Kim, Queen's University

Distributed Energy-Efficient Scheduling Approach for k-Coverage in Wireless Sensor Networks
Chinh Vu, Georgia State University
Yingshu Li, Georgia State University
Shan Gao, Georgia State University
Wiwek Deshmukh, Georgia State University

Capacity Aware Optimal Activation of Sensor Nodes under Reproduction Distortion Measures
Izhak Rubin, University of California, Los Angeles
Xiaolong Huang, University of California, Los Angeles

A Pragmatic Approach to Cooperative Diversity Communication
Keith Chugg, University Southern California, Communication Sciences Institute
David Lee, University Southern California, Communication Sciences Institute

Performance of cooperative transmissions in flat fading environment with asynchronous transmitters
Xiaohua Li, State University of New York at Binghamton
Juite Hwu, State University of New York at Binghamton

Outage probability of Rician fading relay channels
Yongian Zhu, National University of Singapore
Yan Xin, National University of Singapore
Pooi-Yuen Kam, National University of Singapore

Energy-Efficient Cooperative Communication in Clustered Wireless Sensor Networks
Zhong Zhou, University of Connecticut
Shengli Zhou, University of Connecticut
Jun-Hong Cui, University of Connecticut
Shuguang Cui, University of Arizona,

10/25/2006
8:00:00 AM

US-W-K - UWB Communications
Robert Qiu

Experimental Results on Multiple-Input Single-Output (MISO) Time Reversal for UWB Systems in an Office Environment
Chenming Zhou, Tennessee Technological University
Nan Guo, Tennessee Technological University
Robert Qiu, Tennessee Technological University

Performance Study of a High-Rate Multiuser Transmitted Reference Ultra-Wideband Transceiver
Zhengyuan Xu, University of California at Riverside
Amanthram Swami, Army Research Laboratory
Brian Sadler, Army Research Laboratory

Secure spread spectrum communications using ultrawideband random noise signals
Jack Chuang, The Pennsylvania State University
Matthew DeMay, The Pennsylvania State University
Ram Narayanan, The Pennsylvania State University

Optimum Integration Time for UWB Transmitted Reference Schemes and Energy Detector Receivers
Majid Nemati, USC
Urbashi Mitra, USC
Robert Scholtz, USC

AWGN Performance of Superorthogonal Convolutional Codes
Brian Butler, QUALCOMM, Inc. & University of California at San Diego
Joint Acquisition/Channel Estimation for UWB Communications in the Presence of Narrow-band Interference
Matteo Sabattini, UCSD
Elias Masry, UCSD
Laurence B. Milstein, UCSD

Performance Comparison Between MB-OFDM and DS-UWB in Interfered Multipath Channels
Harri Viittala, Centre for Wireless Communications
Matti Hämäläinen, Centre for Wireless Communications
Jari Iinatti, Centre for Wireless Communications

US-W-M - Implementation and Performance of Voice over IP
Darwen Rau and Jay Yoo

The Selection of MELP Parameters to be Utilized with Joint Source-Channel Decoding
Sami Siltala, Nokia, Finland
Ari Tenhunen, Centre for Wireless Communications, University of Oulu

RADAR - A Novel Admission Control and Handoff Management Scheme for Multimedia LEO Satellite Networks
Stephan Olariu, Old Dominion University
Mona Rizvi, Norfolk State University
Syed Rizvi, Old Dominion University

Performance Evaluation of SIP-based Session Establishment over DSR-routed MANETs
Xiaoyan Zhang, Beijing University of Posts and Telecommunications
Xiaofeng Du, Beijing University of Posts and Telecommunications
Zygmunt Haas, Cornell University

An Adaptive Jitter Buffer Play-Out Scheme to Improve VoIP Quality in Wireless Networks
Kevin McNeil, BAE Systems
Mingkuan Liu, PhD Candidate, Dept. of Electrical & Computer Eng., University of Arizona
Jeffrey Rodriguez, Department of Electrical & Computer Engineering, The University of Arizona, Tucson AZ

Packet Detection for On-Board Switching Broadband Satellite IP Networks
Jia Li, Oakland University
John Liu, Oakland University

Explicit Congestion Control for Efficient Reliable Transport in IP-based Tactical Networks
Akber Qureshi, Boeing
Jonathan Cham, Boeing
Wayne Howe, Boeing

US-W-O - Channel Equalization and Iterative Decoding
Bill Kasch

Constrained Decision Feedback Equalizers for Reduced Error Propagation: Theoretical Results
Christopher Pladdy, The MITRE Corporation

A non-isotropic model for mobile-to-mobile fading channel simulation
Rosa Zheng, University of Missouri-Rolla

A Blind Decision Feedback Equalizer for QAM Signals based on the Constant Modulus Algorithm
Antoinette Beasley, Morgan State University
Arlene Cole-Rhodes, Morgan State University

Packet-level iterative detection for SFH communications with Reed-Solomon coding in partial-band interference
Harish Ramchandran, Clemson University
Daniel Noneaker, Clemson University

Iterative CDMA Receiver with EM Channel Estimation and Turbo Decoding
Don Torrieri, US Army Research Laboratory
Eser Ustunel, Wichita State University
Hyuck Kwon, Wichita State University
Seunghyun Min, Samsung Electronics
Dong Kang, Samsung Electronics
Interference Mitigation in IEEE 802.11G OFDM Systems with Smart Antennas and Tapped Delay Lines
Ayham Al-Banna, Illinois Institute of Technology
Joseph LoCicero, Illinois Institute of Technology
Donald Ucci, Illinois Institute of Technology

Frequency-Domain Turbo Equalization for Single Carrier Mobile Broadband Systems
Liang Dong, Western Michigan University
Yao Zhao, Western Michigan University

1:45:00 PM
US-W-L - UWB Systems and Networks

Robert Qiu
Physical Modeling and Template Design for UWB Channels with Per-Path Distortion
Li Ma, ECE dept., NCSU
Hans Hallen, Physics Department, NCSU
Alexandra Duel-hallen, ECE dept., NCSU

UWB Channel Measurements and Modeling for Accurate Indoor Localization
Barid Alavi, Worcester Polytechnic Institute
Nayef Alsindi, Worcester Polytechnic Institute
Kaveh Pahlavan, Worcester Polytechnic Institute

Determination of the existence of LoS blockage and its application to UWB localization
Joon-Yong Lee, Handong University
Yung-Hoon Jo, Core Logic, Inc.
Shin-Hoo Kang, Handong University
A-Young Kang, Handong University
Dong-Heon Ha, Handong University
Sung-Jun Yoon, University of Pittsburgh

Packet-Level Interference Estimation and Adaptive Rate Control in Ultra-Wideband (UWB) Radio
William Lovelace, North Carolina A&T University
Keith Townsend, NC State University
Robert Ulman, US Army Research Office

Channel Characterization for Intra-Vehicle Ultra-Wideband Sensor Networks
Jia Li, Oakland University
Timothy Talty, General Motors

Performance Analysis of Multiple Antenna DS CDMA UWB Systems with Noisy Channel Estimates and Narrow-band Interference
Preeti nagvanshi, University of California San Diego
Elias Masry, University of California San Diego
Laurence Milstein, University of California San Diego

A UWB Network Using Multiple Delay Capture Enabled by Time Reversal
Nan Guo, Tennessee Tech. Univ.
Robert Qiu, Tennessee Tech. Univ.
Brian Sadler, Army Research Laboratory

US-W-N - Techniques in Coding and Modulation

George Elmasry
On Space-Time Block Codes from Coordinate Interleaved Orthogonal Designs
Dung Dao, University of Alberta
Chinthu Tellambura, University of Alberta

Efficient Implementation and Performance Enhancement of the Time-Varying Phase Trellis in CPM
Jagadish Venkataraman, University of Notre Dame
Oliver Collins, University of Notre Dame

Rapid Acquisition of Gold Codes and Related Sequences using Iterative Message Passing on Redundant Graphical Models
Fabio Principe, Dipartimento di Ingegneria dell’Informazione - University of Pisa
Keith M. Chugg, Communication Sciences Institute, Electrical Engineering Dept. - University of Southern California
Papers are not necessarily listed in presentation order

Marco Luise, Dipartimento di Ingegneria dell’Informazione - University of Pisa

Regular \(\{4,8\}\) LDPC Codes and Their Low Error Floors
Chad Cole, Univ of Virginia
Steve Wilson, Univ of Virginia
Tom Giallorenzi, L-3 Comm
Eric Hall, L-3 Comm

Irregular Designs for Two-State Systematic with Serially Concatenated Parity Codes
Jordan Melzer, University of Southern California
Keith Chugg, University of Southern California

Filter-Based Turbo Equalization with 2x16QAM Trellis Coded Modulation and Partially Iterative Channel Tracking
Asgeir Nysaeter, Kongsberg Defence and Aerospace
Roald Otnes, Norwegian Defence Research Establishment

Protograph LDPC Codes over Burst Erasure Channels
Dariush Divsalar, Jet Propulsion Laboratory
Sam Dolinar, Jet Propulsion Laboratory
Christopher Jones, Jet Propulsion Laboratory

US-W-P - Bandwidth Efficient Modulations
Mostofa Howlader

A New Piece-Wise-Linear SBPSK Modulation Waveform with Robust Adjacent Channel Emissions for UHF SATCOM Channels
Madjid Belkerdïd, Mnemonics Inc
TJ Mears, II, Mnemonics Inc

Performance of Noncoherent mMCSK-mMFSK Modulation in Rayleigh Fading Channel
Ari Pouttu, University of Oulu
Harri Saarnisaari, University of Oulu
Savo Glisic, University of Oulu

A New Finite Series Representation for Continuous Phase Modulation
Marilynn Wylie-Green, Nokia

Spectrally Efficient CPM Waveforms for Narrowband Tactical Communications in Frequency Hopped Networks.
Colin Brown, Communications Research Centre
Phil Vigneron, Communications Research Centre

Reduced Complexity Detection of Shaped Offset QPSK
Tom Nelson, Brigham Young University
Michael Rice, Brigham Young University

Performance analysis of quadrature amplitude modulated signals received over a slow, flat, ricean fading channel
Frank Kragh, Naval Postgraduate School
Clark Robertson, Naval Postgraduate School

Mobile and Wireless Technology (MAWT)

10/23/2006
8:00:00 AM

William Kasch

Jamming resistant architecture for WiMAX mesh network
Boris Makarevitch, Helsinki University of Technology

Operational Considerations of Deploying WiMAX Technology as a Last-Mile Tactical Communication System
Pamela Hemmings, Booz Allen Hamilton
Bruce Bennett, Defense Information Systems Agency

Performance Improvement of IEEE802.16-2004 System in Jamming Environment via Link Adaptation
Juan Li, Communications Laboratory, Helsinki University of Technology
Sven-Gustav Häggman, Communications Laboratory, Helsinki University of Technology

**Security of IEEE 802.16 in Mesh Mode**
Yun Zhou, University of Florida
Yuguang Fang, University of Florida

**An Integrated QoS-Aware Mobility Architecture for Seamless Handover in IEEE 802.16e Mobile BWA Networks**
Hui-Juan Yao, Beijing University of Posts and Telecommunications
Geng-Sheng (G.S.) Kuo, National Chengchi University

**A PMP-Friendly Mesh Approach for WiMAX/IEEE 802.16TM**
Matthew Sherman, BAE Systems
Keith Conner, BAE Systems
Phong Khuu, BAE Systems
Kevin McNeill, BAE Systems

**WiMax - Potential Commercial-Off-The-Shelf (COTS) Solution for Tactical Mobile Mesh Communications**
MAJOR Bryon Hartog, US Army
Dr. Timothy X. Brown, Associate Professor, Associate Faculty Director, University of Colorado, Boulder

**US-M-I - MIMO I**
Roger Hammons

**Antenna Selection and Power Control for Limited Feedback MIMO Systems with Successive Interference Cancellation**
Yingwei Yao, University of Illinois, Chicago
Rashid Ansari, University of Illinois, Chicago

**Adaptive Modulation Using Differential STBC in Rayleigh Fading Channel**
Chang Byun, Rensselaer Polytechnic Institute
Gary Saulnier, Rensselaer Polytechnic Institute

**Design of Nonbinary LDPC Codes over GF(q) for Multiple-Antenna Transmission**
Ronghui Peng, Dept. of ECE, University of Utah
Rong-Rong Chen, Dept. of ECE, University of Utah

**Cooperative Multiple Trellis Coded Modulation**
Jialing Li, Polytechnic University
Andrei Stefanov, Polytechnic University

**MIMO Systems and Prototype for Military Communications**
Babak Daneshrad, UCLA EE Dept. and Silvus Communication Systems
Weijun Zhu, Silvus Communication Systems, Inc.

**Space-Time Block Codes for Quasi-synchronous Cooperative Diversity**
Roger Hammons, JHU/APL
Ross Conklin, JHU/APL

**Efficient Space-Time Codes from Cyclic Division Algebras**
P Vijay Kumar, University of Southern California
Petros Elia, University of Southern California
K Vinodh, Indian Institute of Science

Jae Kim

**FH-Code Phase Synchronization in a Wireless Multi-Hop FH/DSSS Adhoc Network**
Teemu Vanninen, Centre for Wireless Communications
Harri Saarnisaari, Centre for Wireless Communications
Matti Raustia, Centre for Wireless Communications
Timo Koskela, Centre for Wireless Communications

**MANETS: Performance Analysis and Management**
Latha Kant, Telcordia Technologies
Stephanie Demers, Telcordia Technologies

**Evaluating and Improving TCP with Adaptive Transmission and Routing Protocols in Frequency-Hop Wireless Ad Hoc Networks**
Yu Zhou, Clemson University
Kuang-Ching Wang, Clemson University
Routing Exploiting Multiple Heterogeneous Wireless Interfaces: A TCP Performance Study
Wonyong Yoon, UIUC
Jungmin So, UIUC
Nitin Vaidya, UIUC

Toward New and Better Protocols for Mobile Ad-Hoc Networks
J Christopher Ramming, DARPA

Robust Ad Hoc Routing for Lossy Wireless Environment
Jiwei Chen, UCLA
Mario Gerla, UCLA
Yeng-Zhong Lee, UCLA
He Zhou, NJU
Yantai Shu, NJU

A coding-based routing for scalable MANET
Bo Ryu, San Diego Research Center, Inc.
Ajay Gummalla, Consultant
Zhensheng Zhang, San Diego Research Center, Inc.
Vivek Gulati, San Diego Research Center, Inc.
David Tang, San Diego Research Center, Inc.
Lianping Ma, SDRC
Joe Hunag, SDRC
Hua Zhu, SDRC
Barbara Sorensen, Air Force Research Laboratory

US-M-M - Cross Layer Solutions in Mobile Ad-Hoc Networks
Bharat Doshi

An error control scheme with virtually segmented packets for wireless multicast protocols
Weimin Zhang, Defence Science and Technology Organisation
Dahong Tang, Defence Science and Technology Organisation
Julija Tovirac, BAE Systems

Dynamic Channel Allocation for Dynamic Spectrum Use in Wireless Sensor Networks
Richard Cagley, Toyon Research Corp
Scott McNally, Toyon Research Corp
Michael Wiatt, Toyon Research Corp

Adaptation of Modulation, Coding, and Power for High-Rate Direct-Sequence Spread Spectrum
Thomas Royster, Clemson University
Michael Pursley, Clemson University

PULSENet Abstract (Predictive Universal Layered Sensor Exploitation Network)
Sean Thompson, Northrop Grumman

Scalable Multicasting in Energy Aware Mobile Backbone Based Wireless Ad Hoc Networks
Choo-Chin Tan, University of California Los Angeles
Izhak Rubin, University of California Los Angeles

A Packet Loss Reduction Scheduling Scheme With Cross-layer Design for OFDM Downlinks
Yunjian Xu, Y.Xu & student
Zhigang Cao, Z.Cao & Professor

A Solution to Hidden Terminal Problem Over A Single Channel In Wireless Ad Hoc Networks
Hongqiang Zhai, University of Florida
Yuguang Fang, University of Florida

US-M-S - MAC Design for Mobile Ad-Hoc Networks
Jon Ward

Distributed Power and Scheduling Management for Mobile Ad Hoc Networks with Delay Constraints
Laurence Milstein, ECE Dept., Univ of California San Diego
Qi Qu, ECE Dept., Univ of California San Diego
Dhadesugoor Vaman, EE Dept., Prairie View A&M University

A MAC Protocol for Tactical Underwater Surveillance Networks
C^3F^2-DMAC: Clustered Contention and Contention Free Fully Decentralized MAC for the 3M Environment: Real-Time Multimedia, Multi-Hop and Mobile
Osama Farrag, Johns Hopkins University Applied Physics Lab
Lotfi Benmohamed, Johns Hopkins University Applied Physics Lab
William D'Amico, Johns Hopkins University Applied Physics Lab

Adaptive Multirate Auto Rate Fallback Protocol for IEEE 802.11 WLANs
Yong Xi, National University of Defense Technology
Byung-Seo Kim, Motorola Ltd
Ji-bo Wei, National University of Defense Technology
Qing-Yan Huang, National University of Defense Technology

A Multi-Band Random Access Messaging Protocol
Nick Van Stralen, GE Global Research
Orhan Imer, GE Global Research
Suresh Iyer, Lockheed Martin
Scott Evans, GE Global Research
Robert Mitchell, GE Global Research

A Directional MAC Protocol for Ad Hoc Networks
Pan Li, University of Florida
Hongqiang Zhai, University of Florida
Yuguang Fang, University of Florida

An adaptive-transmission, cross-layer protocol with selective MAC layer spatial reuse capabilities for ad hoc networks
Steven Boyd, Clemson University
Michael Pursley, Clemson University
Harlan Russell, Clemson University

Didem Kivanc-Tureli

Performance of Wideband Digital Receivers in Jamming
Frederick Block, MIT Lincoln Laboratory

A Channel-Change Game for Multiple Interfering Cognitive Wireless Networks
Roli Wendorf, Pace University
Howard Blum, Pace University

Bluetooth scatternet formation performance: simulations vs testbeds.
Andrea Vitali, DIS - University of Rome "La Sapienza"
Chiara Petrioli, DI - University of Rome "La SApienza"
Cristiano Pierascenzi, DI - University of Rome "La SApienza"

ROBUST INTERFERENCE SUPPRESSION IN SPREAD SPECTRUM SYSTEMS USING LOCALLY OPTIMUM DETECTION
Arnab Roy, Penn State University
John Doherty, Penn State University

Spectrum Characterization for Opportunistic Cognitive Radio Systems
Tevfik Yucek, University of South Florida
Huseyin Arslan, University of South Florida

Iterative Detection and Estimation for Multiple Access Interference Mitigation in Asynchronous Frequency-Hop Spread Spectrum
Xing Tan, University of Florida
John Shea, University of Florida

Noise Phase Shift Keying for Secure Multiuser Code
Stevan Berber, The University of Auckland

1:45:00 PM

Jack Burbank

Entropy-Based Spectral Processing on the 802.11a Waveform
Christopher Rehm, USAF
Michael Temple, USAF
Richard Raines, USAF
Robert Mills, USAF

Coexistence Mechanism Using Dynamic Fragmentation for Interference Mitigation between Wi-Fi and Bluetooth
C.-C. Jay Kuo, EE USC
Alex C.-C. Hsu, EE USC
David S. L. Wei, Dept. of Computer and Information Sciences, Fordham University

Enhancing IEEE 802.11 Wireless Networks with Directional Antennas and Multiple Receivers
Chenxi Zhu, Fujitsu Laboratories of America
Tamer Nadeem, Siemens Corporate Research
Jonathan Agre, Fujitsu Laboratories of America

Effect of Jammer on the Performance of OFDM In the Presence of Nonlinearity In Rayleigh Fading Channel with Application to 802.11n WLAN
David Chi, University of California, San Diego
Pankaj Das, University of California, San Diego

Military Inter-Vehicle Communication with Message Priority using IEEE 802.11e
Chakkaphong Suthaputchakun, University of Massachusetts, Amherst
Aurora Ganz, University of Massachusetts, Amherst

Characterization of an Unintentional Wi-Fi Interference Device-the Residential Microwave Oven
Tanim Taher, Illinois Institute of Technology
Dr Donald Ucci, Illinois Institute of Technology
Dr Joseph LoCicero, Illinois Institute of Technology
Ayham Albanna, Illinois Institute of Technology

Parallel Use of Multiple Channels in Multi-hop 802.11 Wireless Networks
Chen-Mou Cheng, Harvard University
Pai-Hsiang Hsiao, Harvard University
H. T. Kung, Harvard University
Dario Vlah, Harvard University

US-M-J - MIMO II
Andrej Stefanov

The Use of Ray Tracing Models to Predict MIMO Performance isn Urban Environments
Carmen Cerasoli, The MITRE Corporation

Joint Channel Estimation and Detection for MIMO Systems: A SAGE-Based Approach
The-Hanh Pham, National University of Singapore
Arumugam Nallanathan, National University of Singapore
Yang-Chiang Ling, Institute for Infocomm Research (I2R), Singapore

Uplink Multiuser MIMO Transceiver Design with Transmitting Beamforming Under Power Constraints
Songnan Xi, Purdue University, School of Electrical and Computer Engineering
Michael Zoltowski, Purdue University, School of Electrical and Computer Engineering

Reduced Complexity Stack-Based Limited Tree Searching Algorithm for V-BLAST Systems
Namjeong Lee, Information and Communications University
Keonbkook Lee, Information and Communications University
Jongsun Cha, Information and Communications University
Joohnyuk Kang, Information and Communications University
Gyetae Gil, Professional Research Group, Advanced Technology Laboratory, KT

Adaptive Reduced-Rank MIMO Decoder for Military Communications
Patrick Honan, Digital Design Solutions, Inc./Stevens Institute Of Technology
Zhongren Cao, University of California, San Diego
UF Tureli, Stevens Institute of Technology

Simulation Models for MIMO Mobile-to-Mobile Channels
Alenka Zajic, Georgia Institute of Technology
Gordon Stuber, Georgia Institute of Technology

Worst-case Optimized V-BLAST Receiver Design for Imperfect MIMO Channels
Jiansong Chen, USC
Xiaoli Yu, USC

**Jae Kim**

- **Cooperative Multi-Agent Systems in Mobile Ad Hoc Networks**
  - Joseph Macker, NRL
  - William Chao, NRL
  - Myriam Abramson, NRL
  - Ian Downard, NRL

- **Comparison of Proposed OSPF MANET Extensions**
  - Phillip Spagnolo, Boeing Company
  - Thomas Henderson, Boeing Company

- **Mitigating Starvation in Wireless Sensor Networks**
  - Injong Rhee, North Carolina State University
  - Ajit Warrier, North Carolina State University
  - Jeongki Min, North Carolina State University

- **Field Experimentation of COTS-Based UAV Networking**
  - Dan Hague, Air Force Research Laboratory
  - H. T. Kung, Harvard University
  - Bruce Suter, Air Force Research Laboratory

- **Adaptation and Integration across the Layers of Self Organizing Wireless Networks to Achieve Performance and Scalability**
  - Preston Marshall, DARPA

- **UAV Assisted Disruption Tolerant Routing**
  - Michael Le, University of California, Los Angeles
  - Joon-Sang Park, University of California, Los Angeles
  - Mario Gerla, University of California, Los Angeles

- **On how to Circumvent the MANET Scalability Curse**
  - Zygmunt Haas, Cornell University
  - Stuart Milner, University of Maryland at College Park
  - Chris Davis, University of Maryland at College Park

**US-M-T - Ad Hoc Networking Quality of Service**

**Kirk Chang**

- **Design of a Routing Protocol that Exploits the Availability of Directional Antennas in Wireless Ad Hoc Networks**
  - Arvind Swaminathan, Clemson University
  - Daniel Noneaker, Clemson University
  - Harlan Russell, Clemson University

- **Impact of topology control on end to end performance for directional MANETs**
  - Zhensheng Zhang, SDRC
  - Zhuochuan Huang, SDRC
  - Bo Ryu, SDRC

- **A robust access protocol for wireless sensor networks**
  - Chung Shue Chen, LORIA-CNRS, Rue du Jardin Botanique, 54600 Villers Les Nancy, France
  - Wing Shing Wong, The Chinese University of Hong Kong

- **ALBA: an Adaptive Load-Balanced Algorithm for Geographic Forwarding in Wireless Sensor Networks**
  - Paolo Casari, University of Padova
  - Michele Nati, University of Rome
  - Chiara Petrioli, University of Rome
  - Michele Zorzi, University of Padova

- **MEACA: Mobility and Energy Aware Clustering Algorithm for Constructing Stable MANETs**
  - Yi Xu, ECE Dept., North Carolina State University
  - Wenye Wang, ECE Dept., North Carolina State University

- **Joint Rate Adaptation and Channel-Adaptive Relaying in 802.11 Ad Hoc Networks**
  - Michael Souryal, NIST
  - Nader Moayeri, NIST

- **Making proportional bandwidth guarantees in IEEE 802.11e enhanced distributed channel access**
  - Ye Ge, Ohio State University
Papers are not necessarily listed in presentation order

10/24/2006
8:00:00 AM


Jack Burbank

Code Mapping Scheme for High Rate Transmissions in the IEEE 802.15.4b 915 MHz Band
Manjeet Singh, Institute for Infocomm Research
Zhongding Lei, Institute for Infocomm Research
Francois Chin, Institute for Infocomm Research
YS Kwok, Institute for Infocomm Research

WiBro usage scenarios and requirements in tactical environment
Jae Soong Lee, KAIST
Young Serk Shim, KAIST
Hwang Soo Lee, KAIST

Performance Comparison between Turbo Code and Rate-Compatible LDPC
Code for Evolved UTRA Downlink OFDM Radio Access
Naoto Ohkubo, NTT DoCoMo, Inc
Nobuhiko Miki, NTT DoCoMo, Inc
Yoshihisa Kishiyama, NTT DoCoMo, Inc
Kenichi Higuchi, NTT DoCoMo, Inc
Mamoru Sawahashi, Musashi Institute of Technology

Peak-To-Average Power Ratio Optimization of Hybrid OFDMA and Pre-Coded CDMA Reverse Link
Shupeng Li, Bell Labs, Lucent Technologies
Sudhir Ramakrishna, Bell Labs, Lucent Technologies
Ashok Rudrapatna, Bell Labs, Lucent Technologies
Nirwan Ansari, NJIT

Initial Ranging for WiMAX (802.16e) OFDMA
Hisham Mahmoud, University of South Florida
Huseyin Arslan, University of South Florida
Mehmet Ozdemir, Logus Broadband Wireless Solutions

Bluetooth Scatternet Formation and Scheduling: An Integrated Solution
Stefano Basagni, Northeastern University
Maurizio A. Nanni, University of Roma "La Sapienza"
Chiara Petrioli, University of Roma "La Sapienza"

1:45:00 PM


Zhensheng Zhang

A Study on the Call Admission and Preemption Control Algorithms in Secure Wireless Ad Hoc Networks
Kirk Chang, Telcordia
Keith Kim, Telcordia
Sunil Samtani, Telcordia

Adaptive Channel Scanning for IEEE 802.16e
Nada Golmie, NIST
Richard Rouill, NIST

An Integrated Framework for Seamless Soft Handoff in Mobile Ad Hoc Networks
Jason Li, Intelligent Automation, Inc.
Song Luo, Intelligent Automation, Inc.
Mitesh Patel, US Army CECOM
Aristides Staikos, US Army CECOM
Mario Gerla, University of California, Los Angeles
Subir Das, Telcordia Technologies, Inc.
Tony McAuley, Telcordia Technologies, Inc.

Business Continuity Planning for disasters is Just Good Planning
William Roberts, EMC
Concurrent Multipath Transfer Using Transport Layer Multihoming: Performance during Network Failures
Preethi Natarajan, University of Delaware
Janardhan Iyengar, Connecticut College
Paul Amer, University of Delaware
Randall Stewart, Cisco Systems

Tuning Dynamically Routed Internet Protocol Networks To Achieve Controlled And Predictable Failover During Link Instability
Chris Williams, SAIC

A System for Calibrating and Validating Military Ad-Hoc Network Models
Ranga Reddy, Space & Terrestrial Communications Directorate, Ft. Monmouth, NJ
David Green, SRI International

Jeff Wieselthier

Orthogonal Waveform Design and Performance Analysis in Radar Sensor Networks
Jing Liang, The University of Texas at Arlington
Qilian Liang, The University of Texas at Arlington

Covert Netted Wireless Noise Radar Sensor: OFDMA-based Communication Architecture
Shravan Surender, The Pennsylvania State University
Ram Narayanyan, The Pennsylvania State University

A Cross-Layer Game Theoretic Solution for Interference Mitigation in Wireless Ad Hoc Networks.
Hasan Mahmood, Stevens Institute of Technology
Cristina Comaniciu, Stevens Institute of Technology

A Game-Theoretic Look at Throughput and Stability in Random Access
Yalin Sagduyu, University of Maryland, College Park
Anthony Ephremides, University of Maryland, College Park

Accurate Capture Models and their Impact on Random Access in Multiple-Destination Networks
Gan Nguyen, Naval Research Laboratory
Jeffrey Wieselthier, Naval Research Laboratory
Anthony Ephremides, University of Maryland

The effect of frequency offset on the multiple antennas receiver initiated busy tone medium access (MARI-BTMA) protocol
Didem Kivanc-Tureli, Stevens Institute of Technology
UF Tureli, Stevens Institute of Technology
Nehaben Patel, Stevens Institute of Technology

10/25/2006
8:00:00 AM

US-W-E - Cognitive Wireless Communications and Sensing in Networks I
Akbar Sayeed

Group-Mobility-Aware Spectrum Management for Future Digital Battlefields
Haitao Zheng, UC Santa Barbara
Juwei Shi, BUCT
Lili Cao, Shanghai Jiaotong Univ.

Performance of Secondary Radios in Spectrum Sharing with Prioritized Primary Access
Pak Kay Tang, Mr
Yong Huat Chew, Dr
Michael Ong, Dr
M.K Haldar, Prof.

A Measurement-Based Model for Dynamic Spectrum Access in WLAN Channels
Stefan Geirhofer, Cornell University
Lang Tong, Cornell University
Brian M. Sadler, Army Research Laboratory

Distributed cognitive MAC for energy-constrained opportunistic spectrum
Papers are not necessarily listed in presentation order

access
Yunxia Chen, University of California, Davis
Qing Zhao, University of California, Davis
Ananthram Swami, Army Research Laboratory

OFDM for Cooperative Networking with Limited Channel State Information
Leonard Cimini, University of Delaware
Bo Gui, University of Delaware
Lin Dai, University of Delaware

Random Access for Variable Rate Links
Jasvinder Singh, WINLAB, Rutgers University
Chandrasekharan Raman, WINLAB, Rutgers University
Roy Yates, WINLAB, Rutgers University
Narayan Mandayam, WINLAB, Rutgers University

Danijela Cabric

Cyclostationarity-based blind classification of joint analog and digital modulations
Octavia Dobre, Memorial University of Newfoundland
Ali Abdi, New Jersey Institute of Technology
Yeheskel Bar-Ness, New Jersey Institute of Technology
Wei Su, RDECOM, New Jersey

Multiplexing Analysis for Dynamic Spectrum Allocation
Kavitha Chandra, University of Massachusetts Lowell
Sushma Keshavamurthy, University of Massachusetts Lowell

A Predictive Model for Cognitive Radio
Troy Weingart, University of Colorado at Boulder
Douglas C. Sicker, University of Colorado at Boulder
Dirk Grunwald, University of Colorado at Boulder

Cognitive Radio Platform Development for Interoperability
David Scaperoth, Center for Wireless Telecommunications, Virginia Tech
Bin Le, Center for Wireless Telecommunications, Virginia Tech
Tom Rondeau, Center for Wireless Telecommunications, Virginia Tech
Steve Harrison, Innovative Wireless Technologies
David Maldonado, Center for Wireless Telecommunications, Virginia Tech
Charles Bostian, Center for Wireless Telecommunications, Virginia Tech

Global Optimization for Multiple Transmitter Localization
Jill Nelson, George Mason University
Maya Gupta, University of Washington
Megan Hazen, University of Washington

An Architecture For Policy-Based Cognitive Tactical Networking
Grit Denker, SRI International
Reza Ghanadan, BAE Systems Inc.
Carolyn Talcott, SRI International
Srikanta Kumar, BAE Systems Inc.

Spectrum sensing with Forward Methods
Janne Lehtomäki, Centre for Wireless Communications (CWC), University of Oulu
Johanna Vartiainen, Centre for Wireless Communications (CWC), University of Oulu
Markku Juntti, Centre for Wireless Communications (CWC), University of Oulu
Harri Saarnisaari, Centre for Wireless Communications (CWC), University of Oulu

US-W-S - Specialized MANET Technologies
Randy Coleburn

Integrating Directional Links with Omni-Directional Tactical MANET Stack:
An Experimental Analysis
Homayoun Yousefi’zadeh, Boeing
Titus Pottinger, Boeing
Alex White, Agile Communications

A Multi-Group Coordination Mobility Model for Ad Hoc Networks
Kejun Wu, Institute of Communication Engineering, University of Science and Technology, PLA
Quan Yu, The 61st Research Institute of General Staff Headquarters

A Tiered Geocast Protocol for Long Range Mobile Ad Hoc Networking
Robert Hall, AT&T Labs Research
Josh Auzins, Scientific Research Corporation

**Node Density-Based Adaptive Routing Scheme for Disruption Tolerant Networks**
Mooi Choo Chuah, Lehigh University
Peng Yang, Lehigh University

**Integrated Buffer and Route Management in a DTN with Message Ferry**
Mooi Choo Chuah, Lehigh University
Wen-Bin Ma, Lehigh University

**A Novel Swarm Intelligence based Routing Scheme for MANET using Weighted Pheromone Paths**
Seemanti Saha, Department of Electronics and Electrical Communication Engineering, IIT Kharagpur
S.S. Pathak, Department of Electronics and Electrical Communication Engineering, IIT Kharagpur

**Design and Applications of A Smooth Mobility Model for Mobile Ad Hoc Networks**
Ming Zhao, ECE Department of NCSU
Wenye Wang, ECE Department of NCSU

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**Adarsh Sethi**

**An Entity Stability Measure for Mobile Ad Hoc Networks**
Moussa Ayyash, Illinois Institute of Technology
Donald Ucci, Illinois Institute of Technology
Khalid Alzoubi, Saint Xavier University

**Routing for Data Delivery in Dynamic Network Topologies**
Padmavathi Mundur, University of Maryland Baltimore County
Matt Seligman, Laboratory for Telecommunications Sciences
Sookyoung Lee, University of Maryland Baltimore County

**Integration: Reaching Consensus in Low-Diameter Wireless Networks**
Stephan Olariu, Old Dominion University
Jeff Nickerson, Stevens Institute of Technology

**An End-to-End Transport Protocol for Extreme Wireless Network Environments**
Vijaynarayanan Subramanian, Rensselaer Polytechnic Institute
Shivkumar Kalyanaraman, Rensselaer Polytechnic Institute
K.K. Ramakrishnan, AT&T Labs Research

**Resilient and Scalable Wireless Sensor Networks**
Weilian Su, Naval Postgraduate School
Tri T. Ha, Naval Postgraduate School
Kim Boon Chia, Naval Postgraduate School

**Fault-Models in Wireless Communication: Towards Survivable Ad Hoc Networks**
Axel Krings, University of Idaho

**A Hierarchical Anonymous Routing Scheme for Mobile Ad-Hoc Networks**
Jun Liu, University of Alabama
Xiaoyan Hong, University of Alabama
Jiejun Kong, University of California, Los Angeles
Qunwei Zheng, University of Alabama
Ning Hu, University of Alabama
Phillip Bradford, University of Alabama

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**1:45:00 PM**

**US-W-F - Cognitive Wireless Communications and Sensing in Networks II**

**Babak Daneshard**

**A Multi-channel MAC For Opportunistic Spectrum Sharing in Cognitive Networks**
Amitabh Mishra, Virginia Tech

**Performance of Distributed Dynamic Frequency Selection Schemes**
James Neel, MPRG, Virginia Tech
Jeffrey Reed, MPRG, Virginia Tech

**Strategies and Insights into SCA Compliant Waveform Application Development**
Papers are not necessarily listed in presentation order

Scott Dyer, The MITRE Corporation
Yun Zhang, The MITRE Corporation
Nick Bulat, The MITRE Corporation

Application of Cognitive Radio Technology to Legacy Military Waveforms in a JTRS (Joint Tactical Radio System) Radio
Richard Hinman, Air Force Research Laboratory

Spectrum Sensing Measurements of Pilot, Energy, and Collaborative Detection
Danijela Cabric, BWRC
Artem Tkachenko, BWRC
Robert Brodersen, BWRC

Enabling High Performance Wireless Communication Systems Using Reconfigurable Antennas
Gregory Huff, University of Illinois
Tyrone Roach, University of Illinois
Jennifer Bernhard, University of Illinois

Jeff Wieselthier

Cross-layer Optimization of OLSR with a Clustering MAC
Yung-Sze Gan, Thales Technology Centre Singapore
Sandrine Masson, Thales Land & Joint - France
Gregoire Guibe, Thales Land & Joint - France
Bertrand Marin, Thales Land & Joint - France
Christophe Le Martret, Thales Lan & Joint - France

Lightweight Robust Routing in Mobile Wireless Sensor Networks
Xiaoxia Huang, University of Florida
Hongqiang Zhai, University of Florida
Yuguang Fang, University of Florida

Cooperative Geographic Routing in Wireless Sensor Networks
Weiyang Ge, Dept. of Electrical Engineering, Arizona State University
Junshao Zhang, Dept. of Electrical Engineering, Arizona State University
Guoliang Xue, Dept. of Computer Science and Engineering, Arizona State University

Path Selection and Rate Allocation for Video Streaming in Multihop Wireless Networks
Sastry Kompella, Virginia Tech
Shiwen Mao, Virginia Tech
Y. Thomas Hou, Virginia Tech
Hanif D. Sherali, Virginia Tech

A Cross-Layer Communications Framework for Tactical Environments
Marco Carvalho, IHMC
Niranjan Suri, IHMC
Marco Arguedas, IHMC
Matteo Rebeschini, IHMC
Maggie Breedy, IHMC

A multi-criteria receiver-side relay election approach in wireless ad hoc networks
Komlan Egoh, New Jersey Institute of Technology
Swades De, New Jersey Institute of Technology

Cross-Layer Optimization for UWB-based Ad Hoc Networks
Yi Shi, Virginia Tech
Thomas Hou, Virginia Tech
Hanif Sherali, Virginia Tech
Sastry Kompella, Naval Research Laboratory

Radio Systems and Technologies (RSAT)

10/24/2006
8:00:00 AM
US-T-U - Software Defined Radio
Tony Moldovan
Toward a Cognitive Radio Architecture: Integrating Knowledge Representation with Software Defined Radio Technologies
J.D. Poston, The MITRE Corporation
A. Ginsberg, The MITRE Corporation
W. Horne, The MITRE Corporation

Subcarrier Power Adjustment Technique for Peak-to-Average Power Reduction of OFDM Systems
Rakesh Rajbanshi, ITTC, University of Kansas
Alexander Wyglinski, ITTC, University of Kansas
Gary Minden, ITTC, University of Kansas

Games Theory and Software Defined Radios
Dr. Steven Silverman, Raytheon

SCA Reference Waveform Implementation: Best SDR Practices
Leigh McLeod, Mercury Computer Systems
A.Tansu Demirbilek, Mercury Computer Systems
Murat Bicer, Mercury Computer Systems

Developing JTRS/SCA Compliant Software for Specialized Hardware Processors – A Case Study
Leigh McLeod, Mercury Computer Systems
Murat Bicer, Mercury Computer Systems
Mark Hermeling, Zeligsoft

Code Generation for SCA Components Running on FPGAs
Leigh McLeod, Mercury Computer Systems
Joshua Noseworthy, Mercury Computer Systems

A Reuse Approach for FPGA-based SDR waveforms
Kevin Skey, The MITRE Corporation
Karl Wagner, The MITRE Corporation
John Bradley, The MITRE Corporation

10/25/2006
1:45:00 PM
US-W-z - High Frequency Systems
Bill Furman

HF Radio Mesh Networks
Eric Johnson, NMSU

High Performance HF-UHF All Digital RF Receiver Tested at 20 GHz Clock Frequencies
Richard Hitt, Hypres, Inc.
Anna Leese de Escobar, U.S. Navy SPAWAR
Wesley Littlefield, Hypres, Inc.
Oleg Mukhanov, Hypres, Inc.

Distributed Randomized Space-Time Coding for HF Transmission
Matthew Sharp, Cornell University
Anna Scaglione, Cornell University
Stefano Galli, Telcordia Technologies

3:15:00 PM
US-W-Z - Joint Tactical Radio System (JTRS)
Len Schiavone

Cognitive Radio Testbed and LPI, LPD Waveforms
Allen Petrin, Northrop Grumman
Patrick Markus, Northrop Grumman
Douglas Jaeger, Northrop Grumman
Ryan Palkki, Northrop Grumman
Jeffrey Pfeifferenberger, Northrop Grumman

Designing Software Defined Small Form Fit Radios for JTRS Networking
Richard Housewright, JTRS HMS
Larry Muzzelo, JTRS HMS
Richey Gunsaulis, JTRS HMS
M. Sayeed Hasan, JTRS HMS
Thomas Jensen, Mitre
The Mobile Data Link (MDL) of the Joint Tactical Radio System (JTRS)
Wideband Network Waveform (WNW)
C. David Young, Rockwell Collins, Inc.

JTRS Infrastructure Architecture and Standards
Donald Stephens, JPEO JTRS
Brian Salisbury, JPEO JTRS
Kevin Richardson, JPEO JTRS

Design, Modeling and Simulation (DMAS)

10/23/2006
1:45:00 PM
US-M-X - Performance Modeling and Simulation
Gary Comparetto

Real-time network simulation for the GIG Tactical Edge
Anthony Michel, BBN
Frank Bronzo, BBN
Jim Bertone, BBN

Addressing Run-Time Performance Issues in Ad-Hoc Network Simulations
Gary Comparetto, The Mitre Corporation
Nancy Schult, The Mitre Corporation
Mohammad Mirhakkak, The Mitre Corporation
Robyn Wade, The Mitre Corporation
Doug Houser, To Mitre Corporation
Brian Hung, The Mitre Corporation

A Performance Evaluation of Transport Mechanisms in Hybrid Networks
Nancy Schult, MITRE
Robyn Wade, MITRE
Gary Comparetto, MITRE
Mohammad Mirhakkak, MITRE

Credibility and Validation of Simulation Models for Tactical IP Networks
Bert Boltjes, TNO Information and Communication Technology
Frank Thiele, TNO Information and Communication Technology
Irene Fernandez Diaz, TNO Information and Communication Technology

Improving Performance of Parallel Simulation Kernel for Wireless Network Simulations
Mansi Thoppian, University of Texas at Dallas
Hai Vu, University of Texas at Dallas
S. Venkatesan, University of Texas at Dallas
Ravi Prakash, University of Texas at Dallas
Neeraj Mittal, University of Texas at Dallas
Jackson Anderson, Rockwell Collins

RTS/CTS Data Link Abstractions for Mobile Ad Hoc Networks
Jeffrey Wildman, Drexel University
Bryan Willman, Drexel University
Michael Kirkpatrick, Drexel University
Steven Weber, Drexel University

Performance Evaluation of Navy’s Tactical Network using OPNET
Andy Peng, Lockheed Martin - MS2
David Lilja, University of Minnesota - Twin Cities

10/24/2006
8:00:00 AM
US-T-O - Detection and Estimation in Communications Systems A
George Elmasry

IQ Gain Imbalance Measurement for OFDM based Wireless Communication Systems
Huseyn Arslan, USF
Performance of Serial, Matched-Filter Packet Acquisition using a Preamble-Sequence Acceptance Criterion
Javier Schloemann, Clemson University
Daniel Noneaker, Clemson University

A Joint Blind Timing and Frequency Offset Estimator for Asynchronous Multicarrier CDMA Communication Systems
Xiaoyu Hu, National University of Singapore and Institute for Infocomm Research, Singapore
Yong Hua Chew, Institute for Infocomm Research, Singapore

Application of Time-Frequency Analysis to Finite Duration Communication Signals
Edgar Satorius, Jet Propulsion Laboratory/California Institute of Technology
Ying-Wah Wu, U.S. Army I2WD
John Kosinski, U.S. Army I2WD

Asymptotic Multiuser Efficiency of a Decorrelator Based Successive Interference Cancellation DS-CDMA Multiuser Receiver
Bin Yang, Carleton University
Florence Danilo-Lemoine, Carleton University

Link-Adaptive Cooperative Communications without Channel State Information
Tairan Wang, University of Minnesota
Alfonso Cano, Rey Juan Carlos University
Georgios B. Giannakis, University of Minnesota

Frequency Offset Effects on Maximin Algorithm with a Step-Length Estimation Technique
Hyuck Kwon, Wichita State University
Dong-Hyuek Yang, Wichita State University
Amitav Mukherjee, Wichita State University

US-T-S - Simulation and Modeling of Large Scale Networks
Walter Lucchesi

Reliability Simulation of Large-Scale Networks Using Sampling-Scale
Lynn Carlson, General Dynamics C4S
Kristy Casella, General Dynamics
Jack McCann, General Dynamics C4 Systems

Considerations for HLA Federations of Communications Simulations
Eric Redding, Rockwell Collins
Jackson Anderson, Rockwell Collins
Lawrence Creech, Rockwell Collins

End-to-End Communication Systems Modeling Using Hardware-Accelerated Simulation Tool
Dhawat Pansatiankul, The Aerospace Corporation
Victor Lin, The Aerospace Corporation

Optimizing Route Formation Algorithm to Reduce Simulation Run-Time for Large Tactical Networks
mohammad mohakkak, MITRE Corp
Gary Comparetto, MITRE Corp
Doug House, MITRE Corp
Nancy Schult, MITRE Corp
Robyn Wade, MITRE Corp

HARVEST: A Framework and Co-Simulation Environment for Analyzing Unmanned Aerial Vehicle Swarms
Chris Auger, Air Force Institute of Technology
Kevin Morris, Air Force Communications Agency
Barry Mullins, Air Force Institute of Technology

MONOPATI: A Multi-Objective Network Optimization and Analysis Tool
Anthony McAuley, Telcordia
Kyriakos Manousakis, Telcordia Technologies

Link Change and Generalized Mobility Metric for Mobile Ad-hoc Networks
Quang-My Tran, Institute for Telecommunications Research, University of South Australia
Arek Dadej, Institute for Telecommunications Research, University of South Australia
Sylvie Perreau, Institute for Telecommunications Research, University of South Australia
Australia

1:45:00 PM

US-T-N - C4ISR Architecture, Design and Simulation
Thomas Curtis

Gigabit Ethernet Data Multiplex System (GEDMS) - Evolution of a Net-Centric Navy Surface Combatant
Scott Meier, The Boeing Company
Albert Manfredi, The Boeing Company
Jay Nieto, The Boeing Company

System Architecture and Operational Concept Validation through Modeling and Simulation
Robert Butler, Rockwell Collins
Lawrence Creech, Rockwell Collins
Albert Anderson, Rockwell Collins

Engineering Transformational Solutions: We Are Making Progress Be We Still Have More To Achieve?
Walter Lucchesi, US Army

Implementing Interoperable Military Communications Systems
Lynn Grande, General Dynamics - C4S

Use of DoDAF & M&S for the Design Requirements and Optimization of a GIG-Enabled Wideband Mesh-Networking Waveform
Andrew Hunton, BAE Systems
Robert Frye, BAE Systems
Chris Hammer, BAE Systems
Todd Haynes, BAE Systems
Phong Khuu, BAE Systems
Steve Mosteiro, BAE Systems
Richard Nogay, BAE Systems
Michael Weber, BAE Systems

Generative Gateway Toolkit for Heterogeneous C3I Systems
Greg Hupf, Command and Control Technologies Corporation
Rodney Davis, Command and Control Technologies Corporation

Computer Network Defence Situational Awareness Information Requirements
Luc Beaudoin, Defence R&D Canada
Micheal Froh, RatworX Inc
Marc Gregoire, Defence R&D Canada
Julie H. Lefebvre, Defence R&D Canada

US-T-P - Detection and Estimation in Communications Systems B
Uf Tureli

On the Achievable Diversity Gain by the Optimal Subcarrier Allocations in Multiuser OFDM System
Kainan Zhou, Institute for Infocomm Research
Yong Huat Chew, Institute for Infocomm Research

Comparison of Selected Mapping and Partial Transmit Sequence for Crest Factor Reduction in OFDM
Robert J. Baxley, Georgia Tech
G. Tong Zhou, Georgia Tech

Highly efficient encoded OQPSK signals: emission and reception design aspects
Paulo Carvalho, FCT, Universidade Nova de Lisboa

SIR prediction for downlink packet access.
Jonathan Ling, Lucent, Bell Labs
Uf Tureli, Stevens Institute of Technology

Constant Envelope OFDM with Channel Coding
Ahsen Ahmed, SSC San Diego
Steve Thompson, University of California, San Diego
James Zeidler, University of California, San Diego

Robust Pilot Designs for Consistent Frequency Offset Estimation in OFDM systems
Yinghui Li, University of Texas at Dallas
Hlaing Minn, University of Texas at Dallas
Naofal Al-Dhahir, University of Texas at Dallas
Robert Calderbank, Princeton University

Numerical Modeling of Conformal Phased Arrays on Tactical Systems
Deb Chatterjee, University of Missouri Kansas City (UMKC)

10/25/2006
8:00:00 AM

Robert Nichols

Bandwidth Gain of the Triage QoS Protocol and Mobility Effects
Ping Liu, GE Research
Scott Evans, GE Research
Ishan Weerakoon, Lockheed Martin

Robust Flow Admission Control and Routing for Mobile Ad Hoc Networks
Runhe Zhang, UCLA
Izhak Rubin, UCLA

Capacity and Performance Analysis for Multi-Beam Forming Directional Networking
Ren Wang, Rockwell Scientific Company
Xinyu Wang, Rockwell Scientific Company
Jerry Burman, Rockwell Scientific Company
Timothy Chow, Rockwell Scientific Company
Scott Zogg, Rockwell Collins Inc
A Ayhan Sakarya, Rockwell Collins Inc
Dana Jensen, Rockwell Collins Inc

Optimal Scheduling of Heavy Tailed Traffic via Shape Parameter Estimation
Dell Kronewitter, San Diego Research Center

Capacity Planning with the Statistical Prediction of On-Off Flows
Seong-Soon Joo, ETRI
Young-Chul Bang, Korea Polytechnic University
Yoo-Kyung Lee, ETRI
Hae-Won Jung, ETRI

Managing a Dynamic Broadcast Infrastructure in Mobile Ad Hoc Networks through Distributed and Asynchronous Update of a Virtual Backbone
Iana Siomina, Dept of Science and Technology, Linkoping University
Di Yuan, Dept of Science and Technology, Linkoping University

Power control for a wireless queueing system with delayed state information: heavy traffic modeling and numerical analysis.
Vahid Ramezani, Intelligent Automation Inc.
Robert Buche, NC State Mathematics
Mou-Hsiung (Harry) Chang, U.S. Army Research Office
Yipeng Yang, NC State Statistics

1:45:00 PM

US-W-X - Propagation and Channel Modeling
Bill Kasch

Wireless Channels that Exhibit "Worse than Rayleigh" Fading: Analytical and Measurement Results
David Matolak, Ohio University
Indranil Sen, Ohio University
Wenhu Xiong, Ohio University

Near-Earth Wave Propagation in the Presence of a Vegetation Layer
DaHan Liao, The University of Michigan
Kamal Sarabandi, The University of Michigan

An Experimental Look At RF Propagation In Narrow Tunnels
Erik Kjeldsen, Scientific Research Corporation
Marshall Hopkins, Scientific Research Corporation

Time-Varying Channel Identification and Prediction in OFDM Systems Using 2-D Frequency Estimation
Jun Liu, University of Louisville
Xiangqian Liu, University of Louisville

**Path Loss Measurements With Low Antennas for Segmented Wideband Communications At VHF**
Jeff Pugh, CRC
Robert Bultitude, CRC
Phil Vigneron, CRC

**Performance Improvement of Opportunistic Beamforming with Conservative Link Adaptation in the Presence of Channel Estimation Error**
Yohan Kim, Yonsei University
Dongku Kim, Yonsei University

**Space-Time Doppler Spread Estimation in Mobile Fading Channels**
Hong Zhang, ECE, NJIT
Ali Abdi, ECE, NJIT

### Network Centric Systems and Technologies (NCST)

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<td>10/23/2006</td>
<td>1:45:00 PM</td>
<td>US-M-V - Transformational Communications</td>
<td>Phong Tran and David Stroud</td>
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<td>Differential Availability &amp; Bandwidth Management</td>
<td>Bharathi Devi, Lucent Technologies Integrated Solutions</td>
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<td></td>
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<td>Dynamic Resource Allocation for MILSATCOM Mobile Terminals in Blockage Environments</td>
<td>Julee Pandya, MIT Lincoln Laboratory, Jeff Wysockarski, MIT Lincoln Laboratory, Huan Yao, MIT Lincoln Laboratory, Aradhana Narula-Tam, MIT Lincoln Laboratory</td>
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<td>Highly Scalable Signals in Space for Future High Data Rate Military Applications</td>
<td>Dr. Thomas Nicolay, Rohde &amp; Schwarz, Dr. Thomas Kuhwald, Rohde &amp; Schwarz, Andrew Schaefer, Rohde &amp; Schwarz, Thorsten Langguth, Rohde &amp; Schwarz, Torsten Langguth, Rohde &amp; Schwarz</td>
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<td>Planning Within the TSAT Operational Environment</td>
<td>Matthew Maher, Booz Allen Hamilton, Horacio Garcia, Booz Allen Hamilton, Jerry Mister, Booz Allen Hamilton, Anmol Das, Booz Allen Hamilton</td>
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<td>Joint Tactical Radio System – Bringing the GIG to the Tactical Edge</td>
<td>Leonard Schiavone, MITRE, Dr. Rich North, JPO JTRS, Norm Brown, SRA</td>
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<td>Technology Readiness of Future Generation Networks Leveraging Regenerative Satellite Mesh Architecture – A SPACEWAY Perspective</td>
<td>Rajeev Gopal, HNS, David Whitefield, HNS, Steve Arnold, Hughes Network Systems, LLC</td>
</tr>
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<td>Net-Centric Conversations: The unit of work for network centric warfare</td>
<td>Harvey Reed, MITRE, Fred Stein, MITRE</td>
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<tr>
<td>10/24/2006</td>
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<td>US-T-C - Management Systems for Network Infrastructure Resources</td>
<td>John Hoag</td>
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Towards Automation of Management and Planning for Future Military Tactical Networks
C. Jason Chiang, Telcordia Technologies

Specification of Network Services and Mapping Algorithms
Tilman Wolf, University of Massachusetts, Amherst
Karoly Farkas, ETH Zurich
Bernhard Plattner, ETH Zurich
Lukas Ruf, In&Out AG, Zurich, Switzerland

Spectrum and Network Management convergence for wireless communications
Sheetakumar Doshi, Scalable Network Technologies
Ha Duong, Scalable Network Technologies
Rajive Bagrodia, Scalable Network Technologies
Serey Thai, DISA/JSC

Self-Organized Management of Mobile Adhoc Networks
Amit Kulkarni, GE Global Research
Richard Spackmann, GE Global Research
Giri Kuthethoor, Lockheed Martin IS&S

Realtime Reconfiguration of Networks Through A Semantic Web
John Hoag, Ohio University

Assessing the Communication Issues Involved in Implementing High-Level Behaviors in Unmanned Aerial Vehicles
Robert Hiromoto, University of Idaho

Model-Based Communication Networks and VIRT: Orders of Magnitude Better for Information Superiority
Frederick (Rick) Hayes-Roth, Naval Postgraduate School (NPS)

1:45:00 PM
US-T-V - Net Centric Systems for Tactical Environments
Bill Carmichael

Evaluation of an Automated OSPF Area Design Utility for Wireless Battlefield Networks
John Sucec, Telcordia Technologies
John Unger, Telcordia Technologies
Kirk Chang, Telcordia Technologies
Sunil Samtani, Telcordia Technologies
Brian Russell, General Dynamics, C4 Systems Division
Bill Biagini, General Dynamics, C4 Systems Division
Aristides Staikos, U.S. Army CERDEC

Engineering Self-Critical Behavior in Mobile Adhoc Networks
Amit Kulkarni, GE Global Research
Giri Kuthethoor, Lockheed Martin IS&S

Constructing Predictable Applications for Military ad-hoc Wireless Networks
Neil Davies, Predictable Network Solutions
Dale Waldo, The Boeing Company
Dave Reeve, Predictable Network Solutions

Secure Content Based Routing in Tactical Mobile Ad-Hoc Networks
Yow-Jian Lin, Telcordia Technologies
Narayahan Natarajan, Telcordia Technologies

Unicast Routing Control Agent for Proactive Diverse Link Selection
Sumit Khurana, Telcordia Technologies
Gi Tae Kim, Telcordia Technologies
Sunil Samtani, Telcordia Technologies
Moncef Elaoud, Telcordia Technologies
Aristides Staikos, U.S. Army CERDEC

Early, Robust Verification and Validation of Network-Enabled Systems for Tactical Environments
Jackson Anderson, Rockwell Collins
Jennifer Lundquist, Rockwell Collins
Jung-Chi Lin, Rockwell Collins

Automated Frequency Deconfliction for Tactical Networks
Pete Boyer, Equilateral Technologies
Pablo Vicharelli, Equilateral Technologies
### SATCOM and Airborne Communications (SCAAC)

10/23/2006

8:00:00 AM


Vijitha Weerackody and Lino Gonzalez

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<td>Bandwidth-Efficient Coded Cooperative Relaying in Wireless Networks</td>
<td>Sang Kim, Iowa State University</td>
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<td>An Efficient Channel Estimation Algorithm under Narrow-Band Jamming for OFDM Systems</td>
<td>Myeongsu Han, Yonsei University; Takki Yu, Samsung Electronics; Jihyung Kim, Yonsei University; Kyungchul Kwak, Yonsei University; Seungyup Han, Yonsei University; Daesik Hong, Yonsei University</td>
</tr>
<tr>
<td>Request Protocol Performance Impact for Mobile SATCOM with Dynamic Resource Allocation</td>
<td>Andrew Worthen, MIT Lincoln Laboratory; Nathaniel Jones, MIT Lincoln Laboratory</td>
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**US-M-C - UHF SATCOM Operations and MUOS**

Jack Nicholson and Pat Browne

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<td>Migration of U.S. Navy Tactical Networks to the Mobile User Objective System</td>
<td>Frank Tirpak, Maxim Systems, Inc.; Gary Huckell, L-3 Communications Titan Group</td>
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<tr>
<td>Capacity Assessment of Net-Centric SATCOM Systems</td>
<td>Richard L. Gobbi, LinQuest Corporation; Carl H. Burris, LinQuest Corporation; Jerry Fernholz, LinQuest Corporation; Dr. John Alexovich, LinQuest Corporation; David M. Cascio, Science Applications International Corporation; Dr. John J. Knab, Defense Information Systems Agency</td>
</tr>
<tr>
<td>An Evaluation of MUOS Support to Legacy UHF Terminals</td>
<td>Robyn Wade, The MITRE Corporation; Randy Mogor, The MITRE Corporation; Steve Frain, PMA-209; Marc Blaydow, PMA-209</td>
</tr>
<tr>
<td>Performance of MIL-STD-188-181C CPM SATCOM with Reduced State Demodulation</td>
<td>James Norris, Harris/RF Communications</td>
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Status of the Mobile User Objective System  
Jack Nicholson, PEO Space Systems, PMW-146

1:45:00 PM

US-M-B - Resource Allocation and Multiple Access in Satellite Communications  
Vijitha Weerackody and Lino Gonzalez

Performance of OFDM-CDMA System with PAPR Reduction in Nonlinear Rayleigh Fading Channel  
LIN FANG, Member, IEEE  
Rui J. P. de Figueiredo, Life Fellow, IEEE

Low-Complexity Localized Walsh Decoding For CDMA Systems  
Albert Chan, Vanu, Inc.  
Jon Feldman, Vanu, Inc.  
Raghu Madyastha, Vanu, Inc.  
Piotr Indyk, MIT CSAIL  
David Karger, MIT CSAIL

A Novel Spectrally Efficient Wireless CDMA Transmission Scheme: System Design and Robustness to Channel Imperfections  
Aminata Amadou Garba, McGill University  
Jan Bajcsy, McGill University

Closed-Form BER Results for Multiple-Chip-Rate CDMA Systems Based on the Simplified Improved Gaussian Approximation  
Hyung-Myung Kim, KAIST  
II-Min Kim, Queen's University  
MinChul Ju, Queen's University

A PAPR reduction technique using expurgated cyclic codes for COFDM  
Zafar Taha, University of Arkansas at Little Rock  
Xian Liu, University of Arkansas at Little Rock

An Exact Error Probability Analysis of OFDM Systems with Frequency Offset  
Premanandana Rajatheva, Asian Institute of Technology  
Prathapasinghe Dharmawansa, Asian Institute of Technology  
Hlaing Minn, University of Texas, Dallas

US-M-D - MUOS Technologies  
Jack Nicholson and Pat Browne

EVM Simulation and Analysis Techniques  
Angela Wang, Lockheed Martin Corporation  
Richard Ligmanowski, Lockheed Martin Corporation  
Julio Castro, Boeing Company  
Anthony Mazzara, Lockheed Martin Corporation (through Questiny)

MUOS Ka Downlink Performance Evaluation with Transmitter Distortion  
Daisy Cheng, Lockheed Martin Space Systems Company  
Liang Chu, Lockheed Martin Space Systems Company

Hadamard Processing of Multi-Channel Pre-Digitized Data for Bandwidth Compression  
David K. Lee, General Dynamics C4 Systems  
Randy K. Bahr, General Dynamics C4 Systems

Estimated Frequency of Handovers in MUOS  
Edward Orcutt, General Dynamics C4S

A generalized RAKE receiver for satellite WCDMA  
John Sadowsky, General Dynamics C4 Systems

Support MUOS All IP Services with the FEC Enhancement  
Liang Chu, Lockheed Martin Corporation

Shared Network for MUOS  
Minh Le, Lockheed Martin Space Systems Company

10/24/2006

1:45:00 PM

US-T-B - SATCOM Systems
Wayne Phoel

Development and test of a frequency hopped waveform for Medium Data Rates
Gaston Levannier, DGA/CELAR

Performance of multiple-access frequency-hopped systems in the presence of spurious tones
Barry Felstead, CRC

Effect of Group Delay Variation on Time Tracking for Frequency Hopped Satellite Systems
Nancy List, Lincoln Labs

An Efficient Resource Scheduling Algorithm for Phased Array Antenna Satellites
Jihwan Choi, Marvell Semiconductor Inc.
Vincent Chan, MIT EECS

Mobile Communications in a Geosynchronous Regenerative Satellite Mesh (RSM) System
Steven Arnold, Hughes Network Systems
David Whitefield, Hughes Network Systems
Rajeev Gopal, Hughes Network Systems

A 50 W KA-BAND SOLID-STATE POWER AMPLIFIER AND UPConverter FOR TRANSPORTABLE AND PLATFORM-MOUNT SATCOM SYSTEMS
Michael DeLisio, Wavestream
Keith King, Wavestream
Heidi Thelander, Wavestream

US-T-D - SATCOM On The Move
Richard Wexler

Successful development and test of SATCOM On-The-Move (OTM) Ku- and Ka-band Systems for the Army’s Warfighter Information Network-Tactical (WIN-T)
Richard Wexler, MITRE Corp.
Richard Hoffmann, PM WIN-T
Philip Moran, General Dynamics

Automated Spectrum Plan Advisor for On-The-Move Networks
Harris Zebrowitz, Lockheed Martin Advanced Technology Laboratories
Randy Poe, Lockheed Martin Advanced Technology Laboratories
Shanti Sharma, Lockheed Martin Advanced Technology Laboratories
William Heisey, Lockheed Martin Advanced Technology Laboratories
William Kline, Lockheed Martin Advanced Technology Laboratories
Andrew Cortese, Lockheed Martin Advanced Technology Laboratories
Mohbub Hogue, HQ RDECOM CERDEC
Francis Loso, HQ RDECOM CERDEC
Yoram Levy, HQ RDECOM CERDEC

Helicopter Ku-band SATCOM On-the-Move
Don Wilcoxson, ViaSat
John O’Neill, ViaSat
Brian Sleight, ViaSat
Dan Chester, ViaSat

Performance of Satellite Communications On The Move Systems in the Presence of Antenna Pointing Errors
Vijitha Weerackody, Johns Hopkins University/APL
Lino Gonzalez, Johns Hopkins University/APL

Design and Implementation Challenges in Ka-/Ku-Dual-Band Satcom-on-the-Move Terminals for Military Applications
Cahit Ozbay, BAE Systems
James Benjamin, BAE Systems
Donya He, BAE Systems
Garret Schneider, BAE Systems
Matthew Sherman, BAE Systems
William Teter, BAE Systems

10/25/2006
1:45:00 PM
US-W-B - Laser Communications for Ground, Airborne and Space Applications
Tom Macdonald

Airborne Laser Communications with Impulse Response Shortening and Viterbi Decoding
Sangwoo Lee, The Pennsylvania State University, Department of Electrical Engineering
Mohsen Kavehrad, The Pennsylvania State University, Department of Electrical Engineering

Wavelength Division Multiplexed Vehicle Data Bus Architectures and Applications
Rao Boggavarapu, General Dynamics Land Systems
Deepak Boggavarapu, SVTL Corporation

Analytical Performance Evaluation of an Optical Direct Detection CPFSK Transmission System Impaired by Polarization Mode Dispersion in a Single Mode Fiber
M. Saiful Islam, Department of Electrical and Electronic Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka-1000, Bangladesh
Majumder Satya Prasad, Bangladesh University of Engineering and Technology (BUET)

Performance Limitations of an Optical IM-DD Transmission System Due to Polarization Mode Dispersion
M. Saiful Islam, Department of Electrical and Electronic Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka-1000, Bangladesh
Majumder Satya Prasad, Bangladesh University of Engineering and Technology (BUET)
Khan M. Rezwan, United International University

Mitigating of Scintillation Noise in FSO Communication Links Using Saturated Optical Amplifiers
Mohammad Abtahi, COPL, Laval University
Leslie Rusch, COPL, Laval University

Adaptive Transceiver for Mobile Free-space Optical Communications
Jeffrey Minch, The MITRE Corporation
David Gervais, The MITRE Corporation
Daniel Townsend, The MITRE Corporation

Airborne Laser Communications: The Challenges of the Propagation Media
Tom Macdonald, US Air Force
John Jacob, The MITRE Corporation
Fred Walther, MIT Lincoln Laboratory

US-W-D - Network Centric Wideband SATCOM Technologies
Mike Ziegler

DOD TELEPORT- Network Management Evolution and Challenges
Brian Baucom, Booz Allen Hamilton, Inc.
Mark Krikorian, LLC

Blue Force Tracking Network Modeling & Simulation
Paul Kim, Johns Hopkins University / APL
Kanaya Chevli, Johns Hopkins University / APL
Dennis Moy, Johns Hopkins University / APL
Robert Pattay, Johns Hopkins University / APL

GBS Integration with Teleport and the New DISN Core
Bruce Bennett, Defense Information Systems Agency
Brian Myers, Booz Allen Hamilton
Anna Lee, Booz Allen Hamilton

Transformational IP Services Over Transponded SATCOM: An Architectural Approach
Jay Hicks, US Army PM DCATS TMD
Dan Hannan, US Army SMDC/ARSTRAT
Bharat Parikh, AASKI Technology
David Fritz, AASKI Technology

Application of Acceleration Technology to Military Sealift Command Afloat WAN Infrastructure
David Fowler, Systems Technology Forum, Ltd
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Joint Management and Operations Subsystem (JMOS)
Jerry Rippon, AASKI Technology, Inc.
Chu Lai, PM DCATS Wide Band Control
Dan Hannan, ARSTRAT
Rick Dunnegan, JSEC

Poster Session

10/24/2006
8:00:00 AM

US-T-AA - Mobile and Wireless Networks - Poster Session
Derek Morris

Voice over Blue Force Tracking
Bruce Robinson, The MITRE Corporation
Terrance Zimmerman, The MITRE Corporation
Brian Cummings, The MITRE Corporation

STAMP : Shared-Tree Ad hoc Multicast Protocol
Lucie Canourgues, Rockwell Collins France
Jérôme Lephay, Rockwell Collins France
Laurent Soyer, Rockwell Collins France
André-Luc Beylot, IRIT/ENSEEIHT

On the Multiple Access Performance of Prerake DS UWB System
Wei Cao, National University of Singapore
Arumugam Nallanathan, National University of Singapore
Chin Choy Chai, Institute for Infocomm Research, Singapore

Resource and Service Discovery in Wireless Ad-Hoc Networks with Agile Computing
Niranjan Suri, Institute for Human & Machine Cognition
Matteo Rebeschini, Institute for Human & Machine Cognition
Maggie Breedy, Institute for Human & Machine Cognition
Marco Carvalho, Institute for Human & Machine Cognition
Marco Arguedas, Institute for Human & Machine Cognition

Cross-Layer Design of MANETs: The Only Option
John Stine, The MITRE Corporation

MVDI Based Smart Antenna MAC for MANETs
Timo Koskela, Centre for Wireless Communications
Matti Raustia, Centre for Wireless Communications
Timo Bräysy, Centre for Wireless Communications

ConTax: A Pricing Scheme for CHOKeW
Shushan Wen, Department of Electrical and Computer Engineering, University of Florida
Yuguang Fang, Department of Electrical and Computer Engineering, University of Florida

A new nonstationary Gaussian noise model for indoor wireless channels
Sania Salahuddin, University of Massachusetts Lowell
Charles Thompson, University of Massachusetts Lowell
Kavitha Chandra, University of Massachusetts Lowell

Generalization of Channel Blockage Profiles for SATCOM On-the-Move Using 3-D Models
Matthew D. Brennan, MIT Lincoln Laboratory
W. Mark Smith, MIT Lincoln Laboratory

Location Estimation of Isotropic Transmitters in Wireless Sensor Netowrks
John MacDonald, Sapient Systems, Inc.
Donald Ucci, Illinois Institute of Technology
Dennis Roberson, Illinois Institute of Technology

1:45:00 PM

US-T-AB - Sensors and Signal Processing - Poster Session
Derek Morris
Adaptive Code Acquisition with Receive Diversity in Nonhomogeneous Fading Channels
Hyoungmoon Kwon, KAIST
Hyun Gu Kang, KAIST
Jinsoo Bae, Sejong University
So Ryoung Park, Catholic University of Korea
Sun Yong Kim, Konkuk University
Iickho Song, KAIST

Spatial-Temporal-Frequency Diversity in Radar Sensor Networks
Hung D. Ly, The University of Texas at Arlington
Qilian Liang, The University of Texas at Arlington

Improving Mission Assurance Using Bit-True Hitless Data Path Selection
Jerry Brand, Harris GCSD
Joanne Abowitt, Harris GCSD

SOVA Decoding with Blind Channel Estimation in a SIMO FIR Channel
Manjeet Singh, Institute for Infocomm Research
YS Kwok, Institute for Infocomm Research

A Blind Signal Localization and SNR Estimation Method
Johanna Vartiainen, Centre for Wireless Communications
Harri Saarnisaari, Centre for Wireless Communications
Janne Lehtomäki, Centre for Wireless Communications
Markku Juntti, Centre for Wireless Communications

Policy-based Bandwidth Management for Tactical Networks with the Agile Computing Middleware
Niranjan Suri, Institute for Human & Machine Cognition
Marco Carvalho, Institute for Human & Machine Cognition
James Lott, Institute for Human & Machine Cognition
Mauro Tortonesi, University of Ferrara
Jeffrey Bradshaw, Institute for Human & Machine Cognition
Marco Arguedas, Institute for Human & Machine Cognition
Maggie Breedy, Institute for Human & Machine Cognition

A Novel Approach to Reconnaissance using Cooperative Mobile Sensor Nodes
Seokhoon Yoon, State University of New York at Buffalo
Chuming Qiao, State University of New York at Buffalo

Energy Balancing in Coalition-based Multi-hop Wireless Sensor Networks
Qinghai Gao, Arizona State University
Junshan Zhang, Arizona State University
Brian Larish, Space and Naval Warfare Systems Center

Kalman Filter for Interference Mitigation and Channel Equalization in Aeronautical Telemetry
Otilia Popescu, University of Texas at Dallas
Mohammad Saquib, University of Texas at Dallas
Dimitrie C. Popescu, University of Texas at San Antonio
Michael D. Rice, Brigham Young University

Architecture and Analysis of Split Isolation Radio Frequency Electronics
Gary Dunn, L-3 Communications

A New Approach towards Solving the Location Discovery Problem in Wireless Sensor Networks
Guang Han, Univ. of Maryland
Shaoxiong Hua, Synopsys
Gang Qu, Univ. of Maryland

An Adaptive Method of Unequal Error Protection of CELP parameters by Optimal Energy Distribution
Prashanth Iyengar, University of Texas at Arlington
Dr. Vasant Prabhu, University of Texas at Arlington

A Gigabit/Second Turbo Decoder on Field Programmable Gate Array: Supporting TSAT Channel Coding Requirement
Aaron Tu, LinQuest Corp

Superimposed training for channel shortening equalization in OFDM
Xiaoli Ma, Georgia Institute of Technology
Robert Baxley, Georgia Institute of Technology
John Kleider, General Dynamics
G. Tong Zhou, Georgia Institute of Technology
Modulation and Sleeping Strategies for Wireless Sensor Networks
Fadel Digham, Univ. of Minnesota
Georgios Giannakis, University of Minnesota

Performance of OFDM Systems in Rayleigh Fading Channels with Phase Noise and Channel Estimation Errors
Mohamed Jalloh, University of California, San Diego
Mishal Al-Gharabally, University of California, San Diego
Pankaj Das, University of California, San Diego

10/25/2006
8:00:00 AM
US-W-AA - Information and Network Management - Poster Session
Richard Brehove

Military Usage Scenario and IEEE 802.11s Mesh Networking Standard
D. J. Shyy, MITRE

System Link Analysis for a Hybrid SATCOM System with Various Terminal Types
Chien-Hsing Liao, National Central University, Department of Communication Engineering
Mu-King Tsay, National Central University, Department of Communication Engineering
Kuang-Zeng Cheng, National Space Organization
Tai-Kuo Woo, National Defense Management College, Department of Information Management

Leveraging Net-Centric Monitoring Techniques Along With Information Fusion To Increase US Air Force Information Dominance
Basil Jos, Air Force Research Laboratory
Tracey Culbertson, SRA International

Clean-and-Forward Approach in Cooperative Wireless Networks
Wookwon Lee, University of Arkansas
Brian Sepko, University of Arkansas

Prediction in Dynamic Environments via Identification of Critical Time Points
Zeid Kootbally, National Institute of Standards and Technology (NIST)
Raj Madhavan, National Institute of Standards and Technology (NIST)
Craig Schlenoff, National Institute of Standards and Technology (NIST)

802.11 Wireless Network End-User Authentication Using Common Access Cards
Brendan DeBow, Booz Allen Hamilton Inc.

Performance of Ultra-Wideband Communication Systems using DS-SS PPM with BCH Coding over a Fading Channel
Hanfeng Chen, University of Victoria
Aaron Gulliver, University of Victoria
Wei Li, University of Victoria

Theory of Enterprise C2
Jay Bayne, Meta Command Systems, Inc

Channel Estimation Using Kalman Filter for UWB Communication Systems
Reza Pasand, Associates
Shruti Sethi, Associate
John Nielsen, Associate

Synthetic Data Generation Capabilities for Testing Data Mining Tools
Daniel Jeske, University of California
Pengyue Lin, University of California
Behrokh Samadi, Lucent Technologies
Carlos Rendon, University of California
Rui Xiao, University of California

Resource sharing in the most regular scheduling: deterministic performance and guarantee
Chung Shue Chen, LORIA-CNRS, Rue du Jardin Botanique, 54600 Villers Les Nancy, France
Wing Shing Wong, The Chinese University of Hong Kong
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Nabeel Khan, University Of Delaware  
Charles Boncelet, University Of Delaware

Performance of a Digital Ad-Hoc Chip Rate Estimator (ACRE) Given a Direct Sequence Spread Spectrum Pulse Shaped Signal  
John Weber, NPS  
Clark Robertson, NPS  
Frank Kragh, NPS  
Kyle Kowalske, NPS

Energy Analysis of Single-Hop Communication Systems  
Kar-Peo Yar, University of Michigan  
Wayne Stark, University of Michigan

Distributed Link-State Measurement for Accurate QoS-Routing  
Zhen Qin, Dept of ECE, New Jersey Institute of Technology  
Roberto Rojas-Cessa, Dept of ECE, New Jersey Institute of Technology  
Nirwan Ansari, Dept of ECE, New Jersey Institute of Technology

1:45:00 PM  
US-W-AB - Applications and Protocols - Poster Session  
Richard Brehove

Deployment Mode Functionalities of Dynamic Domain Optimization Agent (DDOA) for OSPF Area Design  
Mariusz Fecko, Telcordia Technologies  
John Sucec, Telcordia Technologies  
Sunil Samtani, Telcordia Technologies  
Aristides Staikos, U.S. Army CERDEC

Agilent Application Mix: Realistic Performance and Stress Resilience Testing in Modern Business, Triple-Play and Multi-Service Converged Networks  
Phillip Kazakov, Agilent Technologies Inc

QoSRT: a Quality of Service Routing Tree for Wireless Ad Hoc Networks  
Khaled Alzoubi, Saint Xavier University  
Moussa Ayyash, Illinois Institute of Technology  
Faisal Akkawi, Northwestern University

Beyond Addresses: IPv6 Value for the GIG  
Victoria Fineberg, DISA

Benchmarks for DDoS defense evaluation  
Jelena Mirkovic, University of Delaware  
Sonia Fahmy, Purdue University  
Roshan Thomas, SPARTA  
Peter Reiher, UCLA  
Erinc Arikan, University of Delaware  
Songjie Wei, University of Delaware

A NBI Resistant Receiver for Multiuser Communications  
Chi Chian Wong, DSO National Labs  
See Ee Tan, DSO National Labs  
Boon Chong Ng, DSO National Labs

Automating Command Post and Battle Staff Operations at the USAF 45th Space Wing  
Robert Price, Modus Operandi, Inc.  
Timothy Beltz, ESI Acquisitions, Inc.  
Nathan McKinnon, 45th Space Wing Communications Squadron

Simulation and Evaluation of An HF Email Network  
Fan Zhang, Huazhong Univ. of Sci. & Tech.  
Benxiong Huang, Huazhong Univ. of Sci. & Tech.  
Lai Tu, Huazhong Univ. of Sci. & Tech.  
Jian Zhang, Huazhong Univ. of Sci. & Tech.

IPOIM - Internet Protocol over Instant Messaging  
Ariel Sabiguero, Instituto de Computación - Facultad de Ingeniería  
Pablo Rodríguez, Instituto de Computación - Facultad de Ingeniería  
María Laura Rodríguez, Instituto de Computación - Facultad de Ingeniería

Extracting Precise (1.5-m) Tactical Positioning Data from LF Radio Transmissions

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Papers are not necessarily listed in presentation order

David Allan, Allan Space-Time Solutions
Gus German, Allan Space-Time Solutions
Stephen Smith, Oak Ridge National Laboratory

Position Dependant Power Allocation Strategies in Cooperative Relay Networks
Somak Datta Gupta, Computer Science and Electrical Engineering, West Virginia University
Daryl Reynolds, Computer Science and Electrical Engineering, West Virginia University

The Application of Satellite Communication Technology to Operational Knowledge Acquisition
Scott McDermott, AeroAstro, Inc.
Kim Irving, AeroAstro, Inc.

Workshop on Situation Management (SIMA)

10/23/2006
8:00:00 AM

SIMA - Workshop on Situation Management (SIMA)
Gabe Jakobson, Lundy Lewis, John Salerno

KUPS: Knowledge-based Ubiquitous and Persistent Sensor networks for Threat Assessment
Qilian Liang, University of Texas at Arlington

User-Centric Information Management for Decision Support in Disaster Relief & Evacuation
Alexander Smirnov, SPIIRAS
Tatiana Levashova, SPIIRAS
Michael Pashkin, SPIIRAS
Andrew Krizhanovsky, SPIIRAS
Alexey Kashevnik, SPIIRAS
Anna Komarova, SPIIRAS
Nikolay Shilov, SPIIRAS

Agent-Based Situational Reasoning for In-Theater Distribution
Todd Carrico, Cougaar Software, Inc.
Bobby Chin, Battelle

Using environmental modeling to optimize sensor placement for detecting underwater threats
Lucas Vickers, Stevens Institute of Technology
Rustam Stolkin, Stevens Institute of Technology
Jeffrey Nickerson, Stevens Institute of Technology

Evaluating Threat Assessment for Multi-stage Cyber Attacks
Shanchieh Jay Yang, Rochester Institute of Technology
Jared Holsopple, Calspan-UB Research Center (CUBRC)
Moises Sudit, SUNY Buffalo

Automated Military-Civilian Information Sharing
Bob Dourandish, Quimba Software
Nina Zumel, Quimba Software
Michael Manno, AFRL

A tactical active information sharing system for military MANets
Lionel BARRERE, LaBRI, Université Bordeaux 1
Serge CHAUMETTE, LaBRI, Université Bordeaux 1
Jacques TURBERT, CELAR, Centre d'Electronique de l'Armement

A Framework of Cognitive Situation Modeling and Recognition
Gabriel Jakobson, Altusys Corp.
John Buford, Altusys Corp.
Lundy Lewis, South New Hampshire University

Addressing Information Display Weaknesses for Situational Awareness
Mike Gilger, FYI Corporation

MEDRN - A Mutual Aid Information Network for Emergency Response
Jaime Gomezjurado, Semandex Networks

Papers are not necessarily listed in presentation order
Daniel Reininger, Semandex Networks

**Reflective Situation Management**  
John Buford, Altusys Corp  
Gabriel Jakobson, Altusys Corp  
Lundy Lewis, Southern New Hampshire University

**SeeCoast: Automated Port Scene Understanding Facilitated by Normalcy Learning**  
Brad RHODES, BAE Systems, Advanced Information Technologies  
Neil BOMBERGER, BAE Systems, Advanced Information Technologies  
Michael SEIBERT, BAE Systems, Advanced Information Technologies  
Allen WAXMAN, BAE Systems, Advanced Information Technologies

**Intelligent Situation Awareness on a GIS Basis**  
Vasily Popovich, SPIIRAS  
A Pankin, SPIIRAS  
M. Voronin, SPIIRAS  
Ludmila Sokolova, L. Sokolova

**Biology-inspired Architecture for Situation Management**  
Kennie Jones, NASA Langley Research Center  
Kenneth Lodding, NASA Langley Research Center  
Stephan Olariu, Old Dominion University  
Larry Wilson, Old Dominion University  
Chunsheng Xin, Norfolk State University

**Towards Global Maritime Domain Awareness-- A technical perspective**  
Metin Balci, NATO CC-MAR NAPLES HQ  
Russ Pegg, NATO CC-MAR NAPLES HQ

**Human Perspective Based Context Acquisition, Learning and Awareness in the Design of Context Aware Systems**  
Ashish Godbole, Univ of Dayton