

2014 IEEE Military Communications Conference

(MILCOM 2014)

**Baltimore, Maryland, USA
6 – 8 October 2014**

Pages 1-848



IEEE Catalog Number: CFP14MIL-POD
ISBN: 978-1-4799-6771-1

2014 IEEE Military Communications Conference

MILCOM 2014

Table of Contents

Chairman's Welcome.....	xxvi
Executive Committee.....	xxvii
Track Chairs and Session Chairs.....	xxviii
Acknowledgments.....	xxix

Track 1—Cyber Security and Trust Computing

Covert Communications and Related Topics

Instructions-Based Detection of Sophisticated Obfuscation and Packing	1
<i>Moustafa Saleh, E. Paul Ratazzi, and Shouhuai Xu</i>	
Leveraging Statistical Feature Points for Generalized Detection of Covert Timing Channels	7
<i>Pradhumna Lal Shrestha, Michael Hempel, Fahimeh Rezaei, and Hamid Sharif</i>	
Evaluation and Verification of Automated Covert Channel Modeling Using a Real Network Platform	12
<i>Fahimeh Rezaei, Michael Hempel, Pradhumna Lal Shrestha, and Hamid Sharif</i>	
Ergodic Secrecy Rates of Secure Wireless Communications	18
<i>O. Olabiyi and A. Annamalai</i>	
Comparison of High-end and Low-end Receivers for RF-DNA Fingerprinting	24
<i>Hiren Patel, Michael A. Temple, and Benjamin W. Ramsey</i>	

Detection and Analysis of Cyber Incidents

Security Incident Origin Discovery (SIOD): IP Transaction Tracking for Centralized Cyber Defense	30
<i>Neal Charbonneau, Brandon Newman, and Dylan Pecelli</i>	
Your WiFi Is Leaking: Ignoring Encryption, Using Histograms to Remotely Detect Skype Traffic	40
<i>J.S. Atkinson, M. Rio, J.E. Mitchell, and G. Matich</i>	
Automatic Dataset Labelling and Feature Selection for Intrusion Detection Systems	46
<i>Francisco J. Aparicio-Navarro, Konstantinos G. Kyriakopoulos, and David J. Parish</i>	

Enhancing Trust-Aware Routing by False Alarm Detection and Recovery	52
<i>Youngho Cho and Gang Qu</i>	
Federated Access to Cyber Observables for Detection of Targeted Attacks	60
<i>Michael Atighetchi, John Griffith, Ian Emmons, David Mankins, and Richard Guidorizzi</i>	

Network Protocols and Security

Communities of Trust in Tactical Coalition Networks	67
<i>Anders Fongen and Mazda Salmanian</i>	
Traffic flow confidentiality in federated networks	74
<i>Ole Ingar Bentstuen and Per Carlén</i>	
Reconfigurable Convolutional Codec for Physical Layer Communication Security Application	82
<i>Liang Tang, Jude Angelo Ambrose, Sri Parameswaran, and Sha Zhu</i>	
Dynamically Differentiated Multipath Security in Fixed Bandwidth Networks	88
<i>James Obert, Inna Pivkina, Hong Huang, and Huiping Cao</i>	
A DTN Routing Protocol for Vehicle Location Information Protection	94
<i>Carson Dunbar and Gang Qu</i>	

Cyber Operations

44 Years Targetting and Being a Target	101
<i>Richard George</i>	
Sharpening the Stinger: Tuning KillerBee for Critical Infrastructure Warwalking	104
<i>Benjamin W. Ramsey, Barry E. Mullins, William M. Lowder, and Ryan M. Speers</i>	
Determining the Utility of Cyber Vulnerability Implantation: The Heartbleed Bug as a Cyber Operation	110
<i>Johan Sigholm and Emil Larsson</i>	
The Coordination of Cyber and Kinetic Deception for Operational Effect: Attacking the C4ISR Interface	117
<i>David Ormrod</i>	

Modeling, Simulation, and Analysis in Support

National Cyber Range Overview	123
<i>Bernard "Chip" Ferguson, Anne Tall, and Denise Olsen</i>	
General Requirements of a Hybrid-Modeling Framework for Cyber Security	129
<i>Alessandro Oltramari, Noam Ben-Asher, Lorrie Cranor, Lujo Bauer, and Nicolas Christin</i>	
Analytical Frameworks to Assess the Effectiveness and Economic-Returns of Cybersecurity Investments	136
<i>Paul R. Garvey and Susmit H. Patel</i>	
Diversity and System Security: A Game Theoretic Perspective	146
<i>Swastik Brahma, Kevin Kwiat, Pramod K. Varshney, and Charles Kamhoua</i>	

Cost-Aware Network Hardening with Limited Budget Using Compact Attack Graphs	152
<i>Beytullah Yigit, Gürkan Gür, and Fatih Alagöz</i>	

Context Model Fusion for Multistage Network Attack Simulation	158
<i>Stephen Moskal, Ben Wheeler, Derek Kreider, Michael E. Kuhl, and Shanchieh Jay Yang</i>	

Network Security Management

Exploring the Disruptive Edge of Coalition Network Management	164
<i>Todd Burnop, Francis St-Onge, John Haines, and Peter George</i>	

Trust Establishment Based on Bayesian Networks for Threat Mitigation in Mobile Ad Hoc Networks	171
<i>Zhexiong Wei, Helen Tang, F. Richard Yu, and Peter Mason</i>	

Towards Anonymous Group Setup across Multiple Domains	178
<i>Zhijie Wang, Bing Li, and Dijiang Huang</i>	

Demonstration of a Cross Security Domain Service Management Capability for Federated Missions	184
<i>I. Dimou, H. Wietgrefe, M. van Selm, and L. Janovszki</i>	

Lightweight Packing of Log Files for Improved Compression in Mobile Tactical Networks	192
<i>Peter Mell and Richard E. Harang</i>	

Dynamic Policy Enforcement Using Restriction Set Theoretic Expressions (RSTE)	198
<i>S. Yousaf Shah and Boleslaw K. Szymanski</i>	

Advances in Wireless Security

Examining the Effect of Wireless Sensor Network Synchronization on Base Station Anonymity	204
<i>Jon R. Ward and Mohamed Younis</i>	

Identification in Encrypted Wireless Networks Using Supervised Learning	210
<i>Christopher Swartz and Anupam Joshi</i>	

A Metric for Evaluating Base Station Anonymity in Acknowledgement-Based Wireless Sensor Networks	216
<i>Jon R. Ward and Mohamed Younis</i>	

Secure Distance Indicator Leveraging Wireless Link Signatures	222
<i>Tao Wang and Yao Liu</i>	

Analysis and Mitigation of Interference to the LTE Physical Control Format Indicator Channel	228
<i>Jaber Kakar, Kevin McDermott, Vidur Garg, Marc Lichtman, Vuk Marojevic, and Jeffrey H. Reed</i>	

Securing Cognitive Radio Networks with Dynamic Trust against Spectrum Sensing Data Falsification	235
<i>Yalin E. Sagduyu</i>	

Identification, Authentication, and Access Control

High Assurance information exchange based on Publish-Subscribe and ABAC methods	242
<i>Anders Fongen and Federico Mancini</i>	
Securing Derived Credentials on a Mobile Device	249
<i>Thomas S. Messerges and Thomas J. Mihm</i>	
A Framework for Secure Cloud-Empowered Mobile Biometrics	255
<i>Aruna Sri Bommagani, Matthew C. Valenti, and Arun Ross</i>	

Next Generation Network Security

Cyber Maneuvers and Maneuver Keys	262
<i>Don Torrieri</i>	
Untraceable Blind Packet Forwarding Using Centralized Path Control	268
<i>Youngmi Lee, Younggi Kim, and Younghée Lee</i>	
Fast, Secure Failover for IP	274
<i>Saleem N. Bhatti, Ditchaphong Phoomikiattisak, and Randall J. Atkinson</i>	
Implementation Software to Secure Virtual Machines with Remote Grid of Secure Elements	282
<i>Hassane Aissaoui-Mehrez, Pascal Urien, and Guy Pujolle</i>	

Creating and Managing Secure Enterprises

A Framework for Managing Mission Needs, Compliance, and Trust in the DevOps Environment	288
<i>B.S. Farroha and D.L. Farroha</i>	
Using Security Logs for Collecting and Reporting Technical Security Metrics	294
<i>Risto Vaarandi and Mauno Pihelgas</i>	
Android market reconstruction and analysis	300
<i>Matthew L. Dering and Patrick McDaniel</i>	

Track 2—Waveforms and Signal Processing

Localization

Decoupled 2D Direction Finding Based on Sparse Signal Reconstruction	306
<i>Feng Wang, Xiaowei Cui, and Mingquan Lu</i>	
Designing Radio Interferometric Positioning Systems with Undersampling Techniques	312
<i>Marie Shinotsuka, Yiyin Wang, Xiaoli Ma, and G. Tong Zhou</i>	
A Methodology for Localization in Tunnels Based on Periodic RF Signal Fadings	317
<i>Carlos Rizzo, Francisco Lera, and José Luis Villarroel</i>	
Remote Transmitter Tracking with Raytraced Fingerprint Database	325
<i>Eric de Groot, Tamal Bose, Charlie Cooper, and Matt Kruse</i>	

Hardware Implementation of MUSIC and ESPRIT on NI-PXI Platform	329
<i>N. Tayem, M. Omer, and A. Abul Hussain</i>	
DOA Estimation Method using R Matrix of the QR Factorized Data and its Prototype Implementation on NI-PXI Platform	333
<i>N. Tayem, M. Omer, and A. Abul Hussain</i>	

Coding and Modulation

Performance of Percent Gaussian Orthogonal Signaling Waveforms	338
<i>Alan J. Michaels and Chad Lau</i>	
Simple Closed-Form Approximations for the Error Performance of Digital Modulations in Generalized Fading Channels	344
<i>Eyidayo Adebola and Annamalai Annamalai</i>	
BER Analysis for Digital Modulation Schemes under Symmetric Alpha-Stable Noise	350
<i>Fan Yang and Xi Zhang</i>	
Design and Implementation of Seamless Rate Adaptive Decoder	356
<i>Lu Qiu, Min Wang, Jun Wu, Zhifeng Zhang, and Xinlin Huang</i>	
Preliminary Results on the Performance of an Adaptive Protocol for Packet Relay with Fountain Coding	362
<i>Siddhartha S. Borkotok and Michael B. Pursley</i>	
Optimal Choice of Transmission Parameters for LDPC-Coded CPM	368
<i>Mahsa Foruhandeh, Murat Uysal, Ibrahim Altunbaş, Tuna Guven, and Alper Gercek</i>	

Antennas and Propagation

A New Type of Conformal Antenna Using Magnetic Flux Channels	372
<i>David Auckland, Chris Daniel, and Rodolfo Diaz</i>	
A Study on the Forest Radio Propagation Characteristics in European Mixed Forest Environment	376
<i>Alexandros Palaios, Yann Labou, and Petri Mähönen</i>	
Over-Harbor Channel Modeling with Directional Ground Station Antennas for the Air-Ground Channel	382
<i>Ruoyu Sun and David W. Matolak</i>	
Adaptive Transmit and Receive Beamforming Based on Subspace Projection for Anti-jamming	388
<i>Shengjun Zhang, Kaizhi Huang, and Xiangyu Li</i>	
Impact of Antenna Correlation in Electrically Dual-polarized Small Antennas	394
<i>Jun Chen, Farzad Talebi, and Thomas Pratt</i>	
On the Study of Shadow Correlations of Two Radio Frequencies in an Urban Environment	399
<i>Nikos Perpinias, Alexandros Palaios, Janne Riihijärvi, and Petri Mähönen</i>	

Cognitive Radio

Fast Spectrum Sensing: A Combination of Channel Correlation and Markov Model	405
<i>Mingfei Gao, Xiao Yan, Yuchi Zhang, Chaoyue Liu, Yifan Zhang, and Zhiyong Feng</i>	
Game Theoretical Partially Overlapping Filtered Multi-tones in Cognitive Heterogeneous Networks	411
<i>Mustafa Harun Yilmaz and Hüseyin Arslan</i>	
Decode-and-Forward Relay Selection with Imperfect CSI in Cognitive Relay Networks	416
<i>Hui Sun and Mort Naraghi-Pour</i>	
Variable rate m-QAM assisted Packet Size Optimization for Cognitive Radio and MIMO	
Cognitive Radio based Sensor Networks	422
<i>Chitradeep Majumdar, Nikita Sridhar, and S.N. Merchant</i>	
Cognitive Manager for Hierarchical Cluster Networks Based on Multi-Stage Machine Method	428
<i>Krzysztof Malon, Paweł Skokowski, Piotr Marszałek, Jan M. Keiner, and Jerzy Lopatka</i>	
Cooperative Combining of Cumulants-Based Modulation Classification in CR Networks	434
<i>Mahi Abdelbar, Bill Tranter, and Tamal Bose</i>	

Signal Processing

A Block Processing Approach to CMA Equalization of SOQPSK for Aeronautical Telemetry	440
<i>Arlene Cole-Rhodes and Michael Rice</i>	
Mappings of Window Functions	445
<i>Christopher Fritz and Adly T. Fam</i>	
The Sidelobe Inversion Window	451
<i>Adly T. Fam and Christopher Fritz</i>	
On the Performance of Equalization Techniques for Aeronautical Telemetry	456
<i>Michael Rice, Mohammad Saquib, Md. Shah Afran, Arlene Cole-Rhodes, and Farzad Moazzami</i>	
Model Order Selection in Presence of Unknown Colored Noise	462
<i>Farzad Talebi and Thomas Pratt</i>	
Unsupervised Denoising via Wiener Entropy Masking in the STFT Domain	467
<i>Tarin Ziyyee</i>	

Protected Communications

An Assessment of OFDM Carrier Frequency Offset Synchronization Security for 4G Systems	473
<i>Matthew J. La Pan, T. Charles Clancy, and Robert W. McGwier</i>	
Secrecy Rate Pair Constraints for Secure Throughput	479
<i>Kyle Morrison and Dennis Goeckel</i>	

Cyclic Feature Concealing CP Selection for Physical Layer Security	485
<i>Z. Esat Ankaral, Murat Karabacak, and Hüseyin Arslan</i>	
An Anti-jam Communications Technique via Spatial Hiding Precoding	490
<i>Chad A. Cole, Chowdhury Shahriar, and T. Charles Clancy</i>	
Robust Beamforming and Jamming for Secure AF Relay Networks with Multiple Eavesdroppers	495
<i>Cong Zhang, Hui Gao, Haijing Liu, and Tiejun Lv</i>	
Statistics-Based Jamming Detection Algorithm for Jamming Attacks against Tactical MANETs	501
<i>Aleksi Marttinen, Alexander M. Wyglinski, and Riku Jäntti</i>	

Relay Networks

Long Range Inter-band Radio with the Processed Surrogate Satellite Waveform	507
<i>William Harbison and Rohit Gupta</i>	
Time-efficient Relaying Strategies for Military Communication	513
<i>Ian Bajaj, Yi Gong, and Hui Lee Yee</i>	
Exploiting Cooperative Relay for Reliable Communications in Underwater Acoustic Sensor Networks	518
<i>Yang Wei and Dong-Seong Kim</i>	
Blind Relay Network with Viterbi Detection	525
<i>Shuang Feng, Jie Yang, and Hyuck M. Kwon</i>	
Hybrid Positioning Scheme Based on Satellite and Aeronautical Relay for the Battlefield	531
<i>Kyuman Lee and Jaesung Lim</i>	
Unicast Barrage Relay Networks: Outage Analysis and Optimization	537
<i>Salvatore Talarico, Matthew C. Valenti, and Thomas R. Halford</i>	

MIMO

A Generalized Time-Reversed Space-Time Block Code for Helicopter-to-Ground Communications	544
<i>Michael Rice and Mohammad Saquib</i>	
An Efficient Greedy LLL Algorithm for MIMO Detection	550
<i>Qingsong Wen and Xiaoli Ma</i>	
Lattice Reduction Aided Transceiver Design for Multiuser MIMO Downlink Transmissions	556
<i>Yiming Kong, Qi Zhou, and Xiaoli Ma</i>	
Zero-Forcing approach for L2-Orthogonal ST-Codes with CPM-OFDM schemes and frequency selective Rayleigh fading channels	563
<i>Miguel Angel Hisojo, Jerome Lebrun, and Luc Deneire</i>	
A Family of Orthogonal Full Rate Differential Space Time Block Code Systems	569
<i>Ning Yang and Masoud Salehi</i>	

Lattice Reduction Techniques in MIMO Systems with Correlated Channels	575
<i>Yiming Kong and Xiaoli Ma</i>	

Satellite Waveforms

Shared Transponder Performance with Selective Sub-channel Gain	581
<i>Bruce McGuffin</i>	
Dual Polarization Frequency Reuse in SATCOM: A Method to Counter Poor	
Cross-Polar Isolation	586
<i>Balachander Ramamurth, William G. Cowle, Linda M. Davis, and Gerald Bolding</i>	
Frequency Hopping Packing Algorithm for MF-TDMA with Various Types of Satellite	
Terminals	592
<i>Jinseok Lee, Hongjun Noh, Jaesung Lim, and Kikeun Kim</i>	
Downlink Tracking Performance of Kalman Filter for the Enhanced Polar System (EPS)	597
<i>Lan K. Nguyen, Ming U. Chang, Ryan K. Vorwerk, and Tin T. Ha</i>	
Particle Filter Based Inversion of Nonlinear Satcom Channels	604
<i>Muhammad E. Qureshi and Stephen G. Wilson</i>	
High Penetration Alerting Signal Design for Mobile Satellite Communications Systems	610
<i>James J. Jong, Harish Ramchandran, Jun Wang, and Channasandra Ravishankar</i>	

Sensor Networks

Single Sensor Blind Time-Frequency Activity Estimation of a Mixture of Radio Signals	
via CP Tensor Decomposition	617
<i>Christopher Mueller-Smith and Predrag Spasojevic</i>	
Distributed Event Detection in Sensor Networks under Random Spatial Deployment	623
<i>Pengfei Zhang, Gareth Peters, Ido Nevat, Gaoxi Xiao, and Hwee-Pink Tan</i>	
Node Synchronization in a Wireless Sensor Network Using Unreliable GPS Signals	630
<i>Danniel R. Fuhrmann, Joshua Stomberg, Saeid Nooshabadi, Dustin McIntire, and William Merill</i>	
Density Estimation, Hypotheses Testing, and Sensor Classification in Wireless Sensor	
Networks	637
<i>Erfan Soltanmohammadi and Mort Naraghi-Pour</i>	
ASPD: Adaptive Sensing Period Decision for Time-Varying Channel in Military	
MANETs	643
<i>Bosung Kim, Gyu-Min Lee, and Byeong-Hee Roh</i>	

Spread Spectrum

Performance of the FASTNET Narrowband VHF Frequency Hopping Tactical Radio	
in Challenging Multipath Environments	649
<i>Adrien Le Naour, François Pipon, Benny Nahoum, Dominique Mérel, and Bernhard Obrist</i>	
Generalized Multi-carrier Chaotic Shift Keying	657
<i>Alan J. Michaels and Chad Lau</i>	

Performance of CSSS Signals with Orthogonal Overlay Codes	663
<i>Alan J. Michaels and Chad Lau</i>	
Frequency Hopping Zero Sidelobe Code Set with Desirable Frequency Selective	
Fading and Multipath Interference Properties	669
<i>Adly T. Fam and Ravi Kadlimatti</i>	
Optimum Design for Robustness of Frequency Hopping System	675
<i>Gang Wang, Khanh Pham, Erik Blasch, Tien Manh Nguyen, Genshe Chen, Dan Shen, Bin Jia, Xin Tian, and Zhonghai Wang</i>	

Detection

Mixed Signal Detection Based on Second-Order Cyclostationary Features	682
<i>Dong Li, Yang Qn, Zhiqiang Liu, Zhiqiang Wu, and Zhiping Zhang</i>	
Integrating Linear-Law Detector Performance Simulation Using Gram-Charlier	
Expansion	688
<i>D. Subacius, G.S. Takhar, and G. Vachula</i>	
Real-Time Passive Detection of RF Spark Emission from Gasoline Engines	693
<i>Timothy Brothers</i>	

Receiver Algorithms

Synchronization Error in QAM-Based FBMC System	699
<i>Wonsuk Chung, Beomju Kim, Moonchang Choi, Hyungju Nam, Hyunkyu Yu, Sooyoung Choi, and Daesik Hong</i>	
On Frequency Offset Estimation Using the iNET Preamble in Frequency Selective	
Fading	706
<i>Michael Rice and Erik Perrins</i>	
Iterative Demodulation and Channel Estimation for Asynchronous Joint Multiple Access	
Reception	712
<i>Christian Schlegel and Marcel Jar</i>	
A Low-Complexity Preamble Detector for iNET-Formatted SOQPSK	718
<i>Michael Rice, Andrew McMurdie, and Erik Perrins</i>	
On the Performance of Variable Fractional Delay Arbitrary Sample Rate Conversion	
for Digital Signals	724
<i>John Kleider and Chris Steenhoek</i>	
Fast Time Synchronization Strategy for Mitigating Collision of Initial Entry Message	
over Link-16	731
<i>Sangsoon Ko, Hoki Baek, and Jaesung Lim</i>	

Signal Classification

Background Spectrum Classification for Cognitive Radio	737
<i>Shridatt Sugrim, Melike Baykal-Gursoy, and Predrag Spasojevic</i>	
Blind Modulation Classification for Rician Aeronautical Channels	743
<i>Hyeungill Lee, Dongho Kim, Byungho Moon, and Jungwoo Lee</i>	

Universal Nonhierarchical Automatic Modulation Recognition Techniques for Distinguishing Bandpass Modulated Waveforms Based on Signal Statistics, Cumulant, Cyclostationary, Multifractal, and Fourier-Wavelet Transforms Features	748
<i>Sylwester Sobolewski, William Larry Adams Jr., and Ravi Sankar</i>	
Blind Modulation Classification for MIMO systems using Expectation Maximization	754
<i>Zhechen Zhu and Asoke K. Nandi</i>	
Average Likelihood Method for Classification of CDMA	760
<i>Alfredo Vega Irizarry and Adly Fam</i>	

Radar Waveforms and Processing

Triangular FM Based Discrete Frequency-Coding Waveform Sets	766
<i>Farhan A. Qazi</i>	
Polyphase Code Sets with Large Population Size	772
<i>Farhan A. Qazi</i>	
Multiple Extended Target Detection Using MIMO Radar and Compressed Sensing	777
<i>Amanda Daniel and Dimitrie C. Popescu</i>	
A Novel Approach for the Characterization of FSK Low Probability of Intercept Radar Signals via Application of the Reassignment Method	783
<i>Daniel Stevens and Stephanie Schuckers</i>	
Multiplicative Complementary Codes	788
<i>Adly T. Fam and Ravi Kadlimatti</i>	

Interference Management

An Optimal Transmission of Improper-Complex Second-Order Stationary Data Sequence in Cyclostationary Interference	794
<i>Jeongho Yeo, Joon Ho Cho, and James S. Lehnert</i>	
Comm-through-CREW Using Broadband Signal Processing ECCM	801
<i>Cameron Pike</i>	
On The Impact of Time-Varying Interference-Channel on the Spatial Approach of Spectrum Sharing between S-band Radar and Communication System	807
<i>Awais Khawar, Ahmed Abdelhadi, and T. Charles Clancy</i>	
Detecting UWB Radar signals with UWB communication interference	813
<i>Hyunwoo Cho, Yiyin Wang, and Xiaoli Ma</i>	

Faster than Nyquist

Faster-than-Nyquist Signaling and Optimized Signal Constellation for High Spectral Efficiency Communications in Nonlinear Satellite Systems	818
<i>Bassel F. Beidas, Rohit Iyer Seshadri, Mustafa Eroz, and Lin-Nan Lee</i>	
On Faster-than-Nyquist Transmission over a Multiple-Access Channel	824
<i>Yi Feng and Jan Bajcsy</i>	

Novel Interference Cancellation Technique Based on Matrix Computation for FTN Communication System	830
<i>Myung-Sun Baek, Nam-Ho Hur, and Hyoungsoo Lim</i>	

Track 3—Networking: Architectures, Management, Protocols and Performance

Distributed Computing and Clustering

Mobility-Induced Service Migration in Mobile Micro-clouds	835
<i>Shiqiang Wang, Rahul Urgaonkar, Ting He, Murtaza Zafer, Kevin Chan, and Kin K. Leung</i>	
Offload Destination Selection to Enable Distributed Computation on Battlefields	841
<i>Tamim Sookoor, David Doria, David Bruno, Dale Shires, Brian Swenson, and Lori Pollock</i>	
An Efficient Method of Estimating the Ratio of Clock Frequency	849
<i>Jun Liu</i>	
Prediction and Planning of Distributed Task Management Using Network Centrality	859
<i>Joseph P. Macker and Ian J. Taylor</i>	
An Overlapping Community Detection Algorithm Based on Link Clustering in Complex Networks	865
<i>Chenglong He, Hong Ma, Shize Kang, and Ruifei Cui</i>	

Multiple-Access Control

Multi-hop Geographic Transmission Scheme for the Uplink in Mesh Networks	871
<i>Byonghyok Choi and John M. Shea</i>	
A Novel Collision Avoidance Algorithm for IEEE 802.11 Wireless LANs	879
<i>Hongwei Cheng, Xiao Yan, Hao Lian, Lina Weng, Qixun Zhang, and Zhiyong Feng</i>	
PHY and MAC Design for Distributed Tx-Rx beamforming in Mobile Ad Hoc Networks	885
<i>Yi Jiang, Haining Wang, Babak Daneshrad, and Bruce Fette</i>	
Enhanced MAC Protocol with New Packing for Imagery Transmission in Link-16	891
<i>Hoki Baek, Sangsoon Ko, Jaesung Lim, and Ilhyuk Oh</i>	
Link-Layer Throughput of FHSS with Interference Mitigation: Analysis and Cross Layer Design	897
<i>Oluwatosin A. Adeladan and John M. Shea</i>	

Modeling and Optimization

Improving Spectral Efficiency of MIMO Ad Hoc Network via Greedy MCS Packing	904
<i>Haining Wang, Yi Jiang, Babak Daneshrad, and Bruce Fette</i>	
Root Cause Analysis of Failures in Interdependent Power-Communication Networks	910
<i>Arun Das, Joydeep Banerjee, and Arunabha Sen</i>	
Analysis of Throughput-Constrained Tactical Wireless Networks	916
<i>Paul J. Nicholas, Jeffrey C. Tkacheff, and Chana M. Kuhns</i>	

Practical Capacity Benchmarking for Wireless Networks	922
<i>Jun Sun, Aradhana Narula-Tam, Greg Kuperman, and Keith Gremban</i>	
Link Duration for Infrastructure Aided Hybrid Vehicular Ad Hoc Networks in Highway Scenarios	929
<i>Miao Hu, Zhangdui Zhong, Rui Feng Chen, Minming Ni, Hao Wu, and Chih-Yung Chang</i>	

Cognitive Radio and Software-Defined Networking

Secondary User Data Capturing for Cognitive Radio Network Forensics under Capturing Uncertainty	935
<i>Jing Xu, Qingsi Wang, Rong Jin, Kai Zeng, and Mingyan Liu</i>	
Distributed SDN for Mission-Critical Networks	942
<i>Mathieu Bouet, Kévin Phemius, and Jérémie Leguay</i>	
Power Control in Full Duplex Underlay Cognitive Radio Networks: A Control Theoretic Approach	949
<i>Ningkai Tang, Shiwen Mao, and Sastry Kompella</i>	
Inducing Cooperation for Optimal Coexistence in Cognitive Radio Networks: A Game Theoretic Approach	955
<i>Muhammad Faisal Amjad, Mainak Chatterjee, and Cliff C. Zou</i>	

Systems and Test Beds

Adapting NORM Unicast Transport for Loss Tolerant and ECN Environments	962
<i>Jeffery W. Weston, Joseph P. Macker, and R. Brian Adamson</i>	
System Design and Testbed Implementation of Adaptive Coding Optimization in Lossy Networks	968
<i>Yi Shi, Yalin E. Sagduyu, Junshan Zhang, and Jason H. Li</i>	
Application Layer Protocols for Disruption Tolerant Remote Sensor SATCOM Links	975
<i>John M. Gormally and Ronald L. Richards</i>	
Coordinating UAVs in Dynamic Environments by Network-Aware Mission Planning	983
<i>Marcello Balduccini, Duc N. Nguyen, and William C. Regli</i>	
Socio-technological Testbed for Evaluation of Combined Social and Communication Networks	989
<i>Zhuo Lu, Yalin Sagduyu, and Yi Shi</i>	
GENI Deployment and Research at US Army Research Laboratory	995
<i>Vinod K. Mishra and Venkat R. Dasari</i>	

Admission Control

An Effective Bandwidth Based Admission Control for Multimedia Service in WLAN	1003
<i>Hyun-Jin Lee and Jae-Hyun Kim</i>	
UMTS Load Control with Access Class Barring	1009
<i>Steven Gordon, David Garbin, Denise Masi, and Patrick McGregor</i>	

Admission Control of Video Sessions over Ad Hoc Networks Using Neural Classifiers	1015
<i>D. Vassis, A. Kampouraki, P. Belsis, and C. Skourlas</i>	

Content-Based Networking

DT-ICAN: A Disruption-Tolerant Information-centric Ad-Hoc Network	1021
<i>Yu-Ting Yu, Joshua Joy, Ruolin Fan, You Lu, Mario Gerla, and M.Y. Sanadidi</i>	
Adaptive Interest Modeling Improves Content Services at the Network Edge	1027
<i>Hua Li, Ralph Costantini, David Anhalt, Rafael Alonso, Mark-Oliver Stehr, Carolyn Talcot, Minyoung Kim, Timothy McCarthy, and Samuel Wood</i>	
An Efficient and Expressive Access Control Architecture for Content-Based Networks	1034
<i>Joud Khouri, Samuel Nelson, Armando Caro, Vikas Kawadia, Dorene Ryder, and Tim Strayer</i>	

Sensor Networks 1

Adaptive Reliability-Based Splitting Algorithms with Collision Inference for Sequential Detection	1040
<i>Seksan Laitrakun and Edward J. Coyle</i>	
Collision-Aware Decision Fusion in Distributed Detection Using Reliability-Splitting Algorithms	1046
<i>Seksan Laitrakun and Edward J. Coyle</i>	
Lightweight Forwarding Protocols in Energy Harvesting Wireless Sensor Networks	1053
<i>Cong Pu, Tejaswi Gade, Sunho Lim, Manki Min, and Wei Wang</i>	
On the Value of Collaboration in Non-Line-of-Sight Location Estimation	1060
<i>Javier Schloemann and R. Michael Buehrer</i>	
A Retasking Framework for Wireless Sensor Networks	1066
<i>Michael Ruffing, Yangyang He, Mat Kelly, Jason O. Hallstrom, Stephan Olariu, and Michele C. Weigle</i>	

Routing 1

Optimal Caching and Routing in Hybrid Networks	1072
<i>Mostafa Dehghan, Anand Seetharam, Ting He, Theodoros Salonidis, Jim Kurose, and Don Towsley</i>	
Performance Analysis of Geographic Routing Protocols in Ad Hoc Networks	1079
<i>Don Torrieri, Salvatore Talarico, and Matthew C. Valenti</i>	
An efficient protocol for geographically addressed streaming	1085
<i>Robert J. Hall</i>	
The Challenge of Directional Networking	1093
<i>Tyler Ulinskas, Tim Hughes, and Terry Lewis</i>	
Improving Routing Path Stability in Mobile Ad Hoc Networks That Use a CDS Control Plane	1099
<i>Joseph P. Macker, David Claypool, and Nathan Hughes</i>	

Sensor Networks 2

AQ-DBPSK/DS-CDMA Based Energy-Efficient and Interference-Mitigation Scheme for 3D Clustered WCSNs with Minimum Coverage Rate Constraint	1105
<i>Jingqing Wang and Xi Zhang</i>	
The Impact of Near-Ground Path Loss Modeling on Wireless Sensor Network Lifetime	1114
<i>Huseyin Ugur Yildiz, Sinan Kurt, and Bulent Tavli</i>	
Strategies for Sensor Data Aggregation in Support of Emergency Response	1120
<i>Xianping Wang, Aaron Walden, Michele C. Weigle, and Stephan Olariu</i>	
Noise Mitigation for Multiple Target Tracking in Acoustic Wireless Sensor Networks	1127
<i>Youngwon Kim An, Changhyuk An, Seong-Moo Yoo, and B. Earl Wells</i>	

Routing 2

Inter-cluster Multi-hop Routing in Wireless Sensor Networks Employing Compressive Sensing	1133
<i>Minh Tuan Nguyen, Keith A. Teague, and Nazanin Rahnavard</i>	
A Load-Based Approach for Selecting the Backbone Terminals for a Hierarchical Ad Hoc Network	1139
<i>Raihan Hazarika and Harlan B. Russell</i>	
Multi-metric Energy Efficient Routing in Mobile Ad-Hoc Networks	1146
<i>Evripidis Paraskevas, Kyriakos Manousakis, Subir Das, and John S. Baras</i>	
Interconnecting Heterogeneous MANET Networks at the Tactical Edge	1152
<i>Joy Na Wang, Aradhana Narula-Tam, and Richard Byan</i>	
Towards Interoperability of Adaptive Social-Aware Routing at the Tactical Edge	1160
<i>Wei Gao and Mitesh Patel</i>	
ADNS IPv6 Transition Architecture and Analysis	1167
<i>John Wu, Steven Schneider, Ranga Ramanujan, and Matthew Rambo</i>	

Network Defense and Security

CR-Honeynet: A Learning & Decoy Based Sustenance Mechanism against Jamming Attack in CRN	1173
<i>Suman Bhunia, Shamik Sengupta, and Felisa Vázquez-Abad</i>	
Refining Traffic Information for Analysis Using Evidence Theory	1181
<i>Bing Li, Dijiang Huang, and Zhijie Wang</i>	
Detection and Mitigation of Uplink Control Channel Jamming in LTE	1187
<i>Marc Lichtman, Thaddeus Czauski, Sean Ha, Paul David, and Jeffrey H. Reed</i>	
Secure Reliable Group Communication for Tactical Networks	1195
<i>M. Tamer Refaei and Jeffrey Bush</i>	
Communications Architecture for National Security and Public Safety: Multijurisdictional, Multitechnology Network of Interoperable Networks	1201
<i>Lotfi Benmohamed, John M. Contestabile, Antonio Desimone, Bharat Doshi, and John Forte</i>	

Multicast and Broadcast Communications

Maximizing Multicast Throughput in a Single-Hop Multi-channel Wireless Network	1207
<i>David R. Wasserman and Douglas S. Hulbert</i>	
Robust Broadcasting in Tactical Networks Using Network Coding	1213
<i>Thomas Kunz and Li Li</i>	
Methods for Improving Fault Tolerance of Simplified Multicast Forwarding with CDS in MANETs	1223
<i>Pavel Nekrasov and Denis Fakhriev</i>	
Opportunistic Situational Awareness Dissemination at the Tactical Edge	1229
<i>J. David Brown, Mazda Salmanian, and Ming Li</i>	

Track 4—System Perspectives

Communications-on-the-Move Session 1

Custom Fabricated Aviation Grade Optical Patchcords for Unmanned Aircraft	1238
<i>William F. Wright and James L. Barry</i>	
Path Finding with Variable Speed and Turning Radius	1243
<i>Brian Rapp, Song Park, and Dale Shires</i>	
Link Results for Upper Ka-Band Data Link over Sea Water at Low Look Angles	1250
<i>Michael A. Rupar and Blerta Bajramaj</i>	

Communications-on-the-Move Session 2

Measured Antenna Pointing Errors for Frequency Coordination of SATCOM On-the-Move Terminals	1256
<i>Dirk Ogermann, Robert T. Schwarz, Andreas Knopp, Mostafa Alazab, Gregor Siegert, and Wolfgang Felber</i>	
Criteria to Limit Interference Resulting from Antenna Pointing Errors	1263
<i>Vijitha Weerackody</i>	
Evolving the Tactical Edge: Delivering Unified Capabilities (UC) and Mobile Enterprise Connectivity to the Deployed User	1269
<i>Gloria Witherspoon, Kensing Quock, Michael Lundberg, Allen Elkins, and Chris Christou</i>	

Test Beds, Experiments, Exercises, and Demonstrations Session 1

VHF Narrowband Relay for LOS Extension	1275
<i>Aaron E. Cohen, Edward J. Kennedy, and Michael A. Rupar</i>	
Electromagnetic Battle Manager Verification Case Study	1281
<i>Bryan May, Mahendra Thawani, and J. Stephen Skinner</i>	
SAFE (Smart Access Frequency Exploitation) Radio Field Experiment Results	1287
<i>Mark McHenry, Jeong-O Jeong, and Karl Steadman</i>	

Test Beds, Experiments, Exercises, and Demonstrations Session 2

Testbeds for IT Systems in Tactical Environments	1293
<i>Norman Jansen, Daniel Krämer, and Marc Spielmann</i>	
Validation Methodology for a Digital Wireless Channel Emulator	1299
<i>Scott Buscemi</i>	

Test Beds, Experiments, Exercises, and Demonstrations Session 3

A Comparative Analysis of Lab-Based Network Emulation with Field Results for Large-Scale MANETs	1305
<i>Scott Buscemi and Steven Boyd</i>	
Data Ferrying to the Tactical Edge: A Field Experiment in Exchanging Mission Plans and Intelligence in Austere Environments	1311
<i>Kyle Usbeck, Matthew Gillen, Joseph Loyall, Andrew Gronosky, Joshua Sterling, Ralph Kohler, Richard Newkirk, and David Canestraro</i>	
Multi-channel Phase-Coherent RF Measurement System Architectures and Performance Considerations	1318
<i>David Hall, Andy Hinde, and Yupeng Jia</i>	

Satellite Communications Session 1

EIRP Variations due to Uplink Power Control in Small-Aperture Satellite Communication Links	1324
<i>Vijitha Weerackody</i>	
Space-Based WiMAX MAC Protocol—Analysis of the Network Entry Procedure	1331
<i>Mai T. Lee</i>	
Paint vs. Performance—The Effects of Paint on Large Aperture Ka-Band Antennas	1338
<i>T. Hagstrom, R. Stavoli, A. Wang, and R. Axford</i>	

Satellite Communications Session 2

FAST Digital IF Architecture and Open Standard Digital IF Interfaces	1344
<i>Herald Beljour, Steve Lescrinier, Ogechi Palmer, Alan J. Michaels, Ray Mathes, and Michael Beeler</i>	
AISR Missions on Intelsat EpicNG Ku-Band	1351
<i>Christopher M. Hudson, Eric K. Hall, and Glenn D. Colby</i>	
Incompatible Polarization Wavefront Multiplexing: A New System Perspective	1356
<i>Donald Chang, Joe Lee, and Tzer-Hso Lin</i>	

System Modeling and Simulations Session 1

Scintillation Simulator Test Results: Hardware-in-the-Loop Emulation of Ionospheric Scintillation	1361
<i>William S. Sward, Taylor Swanson, and McKay Williams</i>	
Design, Implementation, and Evaluation of a Hybrid DS/FFH Spread-Spectrum Radio Transceiver	1368
<i>Mohammed M. Olama, Stephen M. Killough, Teja Kuruganti, and Thomas E. Carroll</i>	
An Aspect-Oriented Approach to Assessing Fault Tolerance	1374
<i>Jeffrey Cleveland, Joseph Loyall, and James Hanna</i>	

System Modeling and Simulations Session 2

Modeling Terrain Impact on MANET Connectivity	1382
<i>Lance Joneckis, Corinne Kramer, David Sparrow, and David Tate</i>	
Trust-Based Information and Decision Fusion for Military Convoy Operations	1387
<i>Jin-Hee Cho, Kevin Chan, and Dariusz Mikulski</i>	
Receiver Non-Linearity Aware Resource Allocation for Dynamic Spectrum Access Systems	1393
<i>Aditya V. Padaki, Ravi Tandon, and Jeffrey H. Reed</i>	

Network-Centric Capabilities Session 1

Network Performance and Spectral Behavior of Cognitive Radios during a Coexistence Field Test	1399
<i>Andrew Robertson, Lan H. Tran, Juan Colon, Trang V. Mai, Sastry Kompella, Er-Hsien Frank Fu, and Joseph Molnar</i>	
Content-Oriented Mobile Edge Technology System Integration Framework and Field Evaluation	1405
<i>Zhongren Cao, Matthew French, Rajesh Krishnan, Joshua Ng, David Talmage, and Qingqing Zhang</i>	
Securing Enterprise Multicast Access Control Requirements with Group Domain of Interpretation (GDOI)	1411
<i>Gloria Witherspoon, Kensing Quock, Christopher Peterson, Ankur Aggarwal, and Daniel Gilbert</i>	

Network-Centric Capabilities Session 2

Network Size and Connectivity in Mobile and Stationary Ad Hoc Networks	1416
<i>Lance Joneckis, Corinne Kramer, David Sparrow, and David Tate</i>	
Fusing Open Source Intelligence and Handheld Situational Awareness: Benghazi Case Study	1421
<i>Jeff Boleng, Marc Novakouski, Gene Cahill, Soumya Simanta, and Edwin Morris</i>	

On Secure, Privacy-Aware, and Efficient Beacon Broadcasting among One-Hop Neighbors in VANETs	1427
<i>Rasheed Hussain, Zeinab Rezaeifar, Donghyun Kim, Alade O. Tokuta, and Heekuck Oh</i>	

System Architecture Session 1

Challenges in Designing Communication Systems for Unmanned Aerial Systems Integration into Non-segregated Airspace	1435
<i>Martínez Paredes and Ponce Ruiz</i>	
Tactical Cloudlets: Moving Cloud Computing to the Edge	1440
<i>Grace Lewis, Sebastián Echeverría, Soumya Simanta, Ben Bradshaw, and James Root</i>	
Low SINR Synchronization for the DARPA Spectrum Challenge Scenario	1447
<i>Andrew C. Marcum, Andrew D. Balmos, Stephen G. Larew, Joon Young Kim, Alexander W. Layton, James V. Krogmeier, and David J. Love</i>	

System Architecture Session 2

Hardware/Software Convergence for C4ISR/EW	1454
<i>Paul Zablocky, Seth Spoenlein, Ben Peddicord, Yevgeny Ivanyutin, Ryan Nilsen, and Paul Sass</i>	
Environment-Adaptable Efficient Optimization for Programming of Reconfigurable Radio Frequency (RF) Receivers	1459
<i>Minhee Jun, Rohit Negi, Jun Tao, Ying-Chih Wang, Shihui Yin, Tamal Mukherjee, Xin Li, and Larry Pileggi</i>	
A Technical Review of Software Defined Radios: Vision, Reality, and Current Status	1466
<i>Lawrence Goeller and David Tate</i>	

Efficient Spectrum Utilization Session 1

Quality of Service Assurance for Shared Spectrum Systems	1471
<i>Munawwar M. Sohul, Xiaofu Ma, Taeyoung Yang, and Jeffrey H. Reed</i>	
A Linux Kernel Implementation of MANET IP Header Compression	1477
<i>Bow-Nan Cheng, Tak Wong, and Brian Hung</i>	
An Evaluation of IP Header Compression on the GIG Joint IP Modem System	1484
<i>Brian Hung, Dana Defrancesco, Bow-Nan Cheng, and Prasanna Sukumar</i>	

Efficient Spectrum Utilization Session 2

RF Performance Implications of Wideband HF Waveforms	1491
<i>Eric Koski, John Nieto, Mark Thompson, and John Russell</i>	
A Utility Proportional Fairness Resource Allocation in Spectrally Radar-Coexistent Cellular Networks	1498
<i>Mo Ghorbanzadeh, Ahmed Abdelhadi, and Charles Clancy</i>	

Implementation and Analysis of Energy Detection-Based Sensing Using USRP/SBX Platform	1504
Joon Young Kim, Andrew C. Marcum, Andrew D. Balmos, Alexander W. Layton, Stephen G. Larew, James V. Krogmeier, and David J. Love	

Track 5—Selected Topics in Communication

Anti-access Communication

Performance Analysis of Concatenated Convolutional Codes for STBC Systems in Pulse Jamming	1510
Sungjoon Park and Wayne E. Stark	
Performance Impact of Imperfect CSI on Spatial Hiding Anti-jam Communications	1516
Chowdhury Shahriar, Chad A. Cole, and T. Charles Clancy	
Wideband High Frequency (WBHF) for Anti-access Area-Denial (A2AD) Environments	1522
James A. Stevens, Lizy Paul, Timothy E. Snodgrass, and Randy W. Nelson	
Optimal Jamming using Delayed Learning	1528
Saidhiraj Amuru and R. Michael Buehrer	
Jammer Beamforming: A New Attack Vector in Jamming IEEE 802.11ac Networks	1534
Gaurav Patwardhan and David Thuente	
Digital RF Memory Jamming on OFDM SISO	1542
Olivier Bilodeau-Robitaille and François Gagnon	

Scheduling

Exploiting Frequency Groups for Broadcasting in Multi-channel Multi-radio Networks	1549
Stephen Dabideen, Ram Ramanathan, Will Dron, and Alice Leung	
Graph-Based and QoS Guaranteed Spectrum Allocation for Dense Local Area Femtocell Networks	1556
Yuanjie Wang and Zhenhui Tan	
Feedback Reduction for Queue-aware Coordinated Multi-user Scheduling in Small-cell Networks	1562
Hongxin Wei, Xiaofeng Zhong, Ming Zhao, Yang Yan, and Shidong Zhou	
Improved Round-Robin User Scheduling for Two-Hop ZF MIMO Relay Systems	1568
Haijing Liu	
Proportional Fairness Grouped Pairing Scheduling for VMIMO Uplink in Femtocell Systems	1573
Danish Ilyas and Imran Rashid	
Cluster Information based User Scheduling for Multiuser MIMO Systems	1580
Xueru Li, Shidong Zhou, Yang Yan, Zhiqing Xiao, and Jing Wang	

Cooperative Communications and Computing

Precoder Detection for Cooperative Decode-and-Forward Relaying in OFDMA Systems	1586
<i>Abhijit Kiran Valluri, Richard J. La, and Mark A. Shayman</i>	
On the Ergodic Secrecy Rate of Cooperative Decode-and-Forward Relay Networks	1595
<i>Philip Adebo, Eyidayo Adebola, and Annamalai Annamalai</i>	
Alamouti-based Schemes for Full-Duplex Two-Way Relay Networks	1601
<i>Gaoli Bi, Hui Gao, Tiejun Lv, and Wenqing Wang</i>	
Improving the Ergodic Capacity of Wireless Networks Using Opportunistic Relays	1608
<i>Philip Adebo, Eyidayo Adebola, and Annamalai Annamalai</i>	
Opportunistic Peer-to-Peer Mobile Cloud Computing at the Tactical Edge	1614
<i>Wei Gao</i>	

Socio-cognitive Factors in Communication Systems

Technology diffusion and military users: Perceptions that predict adoption	1621
<i>Harry D. Tunnell</i>	
Dynamics of Uncertain Opinions in Social Networks	1627
<i>Jin-Hee Cho and Ananthram Swami</i>	
On Critical Event Observability Using Social Networks: A Disaster Monitoring Perspective	1633
<i>Dong-Anh Nguyen, Tarek Abdelzaher, Steven Borbash, Xuan-Hong Dang, Raghu Ganti, Ambuj Singh, and Mudhakar Srivatsa</i>	
Representing Uncertainty in CE	1639
<i>Ping Xue, Steve Poteet, Anne Kao, David Mott, and Cheryl Giannanco</i>	
Mission Assurance through Requirements Traceability	1645
<i>Chris Williams, John Ibbotson, James Lockerbie, and Katrina Attwood</i>	

Enabling Technologies for Wireless Networks

Location Security—Where to Enforce?	1651
<i>Saritha Arunkumar, Mudhakar Srivatsa, and Muttukrishnan Rajarajan</i>	
LPI/LPD Detection Sensitivity Limitations	1657
<i>R.B. Dybdal and K.M. Soohoo</i>	
Multisensor Modulation Classification (MMC): Implementation Considerations—USRP Case Study	1663
<i>Svetlana Foulke, Jithin Jagannath, Andrew Drozd, Thakshila Wimalajeewa, Pramod K. Varshney, and Wei Su</i>	
An Energy-efficient Wireless Information and Power Transfer System with Multiple Antennas in Wireless Sensor Networks	1669
<i>Jun Chen and Thomas Pratt</i>	
TV Band Radio Environment Mapping in Beijing	1675
<i>Yajian Huang, Xiao Yan, Kai Chen, Hao Zhou, Yifan Zhang, and Zhiyong Feng</i>	

Iterative Clipping for PAPR Reduction in Visible Light OFDM Communications	1681
<i>Zhenhua Yu, Robert J. Baxley, and G. Tong Zhou</i>	

Satellite Communications

Interoperability of Incompatible Polarization Satellite Assets: A Wavefront Multiplexing Approach	1687
<i>Donald Chang, Joe Lee, and Tzer-Hso Lin</i>	
Coexistence Analysis between IMT-Advanced System and Fixed Satellite Service System	1692
<i>Chenxi Su, Xianghui Han, Xiao Yan, Qixun Zhang, and Zhiyong Feng</i>	
Micro Satellite Terminal-Based High Data Rate Communication for Rotary Wing Aircraft	1698
<i>Lin-Nan Lee, Victor Liau, Wayne Marhefka, and Rajeev Gopal</i>	
Effect of Platform Dynamics on Aerial Layer Network Performance	1704
<i>Devanshu Mehta and Bishwaroop Ganguly</i>	

Author Index