

Proceedings- 16th International Conference on Computer Communications and Networks



**Honolulu, Hawaii
13 - 16 August 2007**

IEEE Catalog Number	07EX1797
ISBN	1- 4244- 1250- 1
ISSN	1095-2055

Message from the General Chair	iii
Message from the Technical Program Chair	iv
Message from the Workshop Co-Chairs	v
ICCCN 2007 Organizing Committee	vi
ICCCN 2007 Technical Program Committee Organizers	vi
ICCCN 2007 Technical Program Committee	ix
Keynote Speakers	xvi - xx
Distinguished Invited Talks	xxi
Advanced Panels	xxii
Best Paper Award Nominees	xxiii
Chairs Recommended Papers	xxiv
A New Perspective of Cross-layer Optimization for Wireless Communication over Fading Channel	1
Xiaofeng Bai, Abdallah Shami (<i>The University of Western Ontario, Canada</i>)	
Opportunistic Scheduling for Delay Sensitive Flows in Wireless Networks	7
Yu Wu, Ji-bo Wei, (<i>National University of Defense Technology, China</i>); Byung-Seo Kim, (<i>Motorola Inc, USA</i>); Yong Xi, Dong-tang Ma (<i>National University of Defense Technology, China</i>)	
Computationally Efficient Cross-Layer Algorithm for Fair Dynamic Bandwidth Allocation	13
Antoni Morell, Gonzalo Seco-Granados, Maria Ángeles Vázquez-Castro (<i>Universitat Autònoma de Barcelona (UAB), Spain</i>)	
Infrastructure for Cross-Layer Designs Interaction	19
Zhijiang Chang, Georgi Gaydadjiev, Stamatis Vassiliadis (<i>Technical University of Delft, The Netherlands</i>)	
A Unified Software Architecture to Enable Cross-Layer Design in the Future Internet	26
Ilia Baldine Manoj Vellala, Anjing Wang, George Rouskas, Rudra Dutta Daniel Stevenson (<i>RENCI, USA</i>)	
Localized Detection of k-connectivity in Wireless Ad Hoc, Actuator and Sensor Networks	33
Milenko Jorgic (<i>University of Ottawa, Canada</i>); Nishith Goel, (<i>CISTEL, France</i>); Kalai Kalaichevan, (<i>EION, France</i>); Amiya Nayak1, (<i>University of Ottawa, Canada</i>); Ivan Stojmenovic (<i>University of Ottawa, Canada and University of Birmingham, UK</i>); ()	
Interference Mitigation Using Spectrum Sensing	39
Srikathyayani Srikanteswara, Christian Maciocco (<i>Communications Technology Lab, Intel Corporation, USA</i>)	
Global Path-Cache Technique for Fast Handoffs in WLANs	45
Weetit Wanalertlak and Ben Lee (<i>Oregon State University, USA</i>)	
Efficient Real-Time Support for Hybrid Tasks in a Sensor Node Platform	51
Byounghoon Kim (<i>Pusan National University, South Korea</i>); Kyunghoon Jung, E.K. Park (<i>University of Missouri – Kansas City, USA</i>); Sungwoo Tak (<i>Pusan National University, South Korea</i>)	
MBAL: A Mobile Beacon-Assisted Localization Scheme for Wireless Sensor Networks	57
Kyunghwi Kim, Wonjun Lee (<i>Korea University, Republic of Korea</i>)	
Travel-light: A Model for the Dynamic Assembly of Mega Machines	63
Li Gao, Jingyuan Zhang (<i>University of Alabama, USA</i>); Danyang Zhang (<i>The City University of New York, USA</i>)	
A Caching-Based Approach to Routing in Delay-Tolerant Networks	69
Dan Henriksson, Tarek F. Abdelzاهر, Raghu K. Ganti (<i>University of Illinois at Urban a-Champaign, USA</i>)	
Localized and Configurable Topology Control in Lossy Wireless Sensor Networks	75
Guoliang Xing (<i>City University of Hong Kong, Hong Kong</i>); Chenyang Lu, Robert Pless (<i>Washington University in St. Louis, USA</i>)	

SpotMAC: A Pencil-Beam MAC for Wireless Mesh Networks	81
Kwan-Wu Chin (<i>University of Wollongong, Australia</i>)	
Channel-Specific Wireless Sensor Network Path Data	89
Lance Doherty, William Lindsay, Jonathan Simon (<i>Dust Networks, USA</i>)	
Measurement of Energy Costs of Security in Wireless Sensor Nodes	95
Chih-Chun Chang, Sead Muftic, David J. Nagel (<i>The George Washington University, USA</i>)	
Bandwidth-adaptive Clustering for Mobile Ad Hoc Networks	103
Yong Wang, Min Sik Kim (<i>Washington State University, USA</i>)	
Understanding Peer-level Performance in BitTorrent: A Measurement Study	109
Amir H. Rasti, Reza Rejaie (<i>University of Oregon, USA</i>)	
Enabling Keyword Search and Similarity Search in Small-World-based P2P Systems	115
Ching-Ju Lin, Shuo-Chan Tsai, Yi-Ting Chang and Cheng-Fu Chou (<i>National Taiwan University, Taiwan</i>)	
Scalable Peer-to-Peer File Sharing with Efficient Complex Query Support	121
Yan Li, (<i>University of Connecticut, USA</i>); Jyoti Ahuja, (<i>Yahoo Software Development, India</i>); Li Lao, (<i>Google Santa Monica, USA</i>); Jun-Hong Cui (<i>University of Connecticut, USA</i>)	
SCUBE: A DoS-Resistant Distributed Search Protocol	128
Souvik Ray, Zhao Zhang (<i>Iowa State University, USA</i>)	
Grid Computing on Massively Multi-User Online Platform	135
Y.C. Allen Yu, K.L. Eddie Law (<i>Ryerson University, Canada</i>)	
Network-aware SuperPeers-Peers Geometric Overlay Network	141
Eng Keong Lua (<i>NTT Corporation, Japan</i>); Xiaoming Zhou (<i>Delft University of Technology, The Netherlands</i>)	
Adaptive Bit Loading for Coded MIMO-OFDM	149
Harry Z.B. Chen, Lutz Lampe, Robert Schober (<i>University of British Columbia, Canada</i>)	
Serial Sum-Product Architecture for Low-Density Parity-Check Codes	154
Ruwana N.S. Ratnayake (<i>Harvard University, USA</i>); Erich F. Haratsch (<i>LSI Corporation, USA</i>); Gu-Yeon Wei (<i>Harvard University, USA</i>)	
Performance of a Robust Filter-based Approach for Contour Detection in Wireless Sensor Networks	159
Hadi Alasti, William A. Armstrong, Jr., Asis Nasipuri (<i>The University of North Carolina at Charlotte, USA</i>)	
Error-Correcting Codes Based on Quasigroups	165
D. Gligoroski (<i>Norwegian University of Science and Technology, Norway</i>); S. Markovski (<i>The Institute of Informatics, Macedonia</i>); L. Kocarev (<i>University of California - San Diego, USA</i>)	
Lagniappe: Multi-* Programming Made Simple	173
Taylor L. Riche, Greg Lavender, Harrick M. Vin (<i>The University of Texas at Austin, USA</i>)	
Challenges for Scalable Networking in a Virtualized Server	179
John Wiegert, Greg Regnier and Jeff Jackson (<i>Intel Corporation</i>)	
Bloom Filter Accelerator for String Matching	185
M. Nourani, P. Katta (<i>The University of Texas at Dallas, USA</i>)	
Packet Buffer Management for a High-Speed Network Interface Card	191
Shalini Batra, Yul Chu (<i>Mississippi State University, USA</i>); Yan Bai (<i>Columbus State University, USA</i>)	
A Study of Wireless Mesh Network Routing Protocols for Push-to-Talk Traffic	197
Youti Kado, Azman Osman Lim, Bing Zhang (<i>National Institute of Information Communications Technology, Japan</i>)	
Distributed Channel Access Scheduling for Ad Hoc Networks using Virtual MIMO	203
Xin Wang (<i>University of California, Santa Cruz, USA</i>); J.J. Garcia-Luna-Aceves (<i>Palo Alto Research Center (PARC), USA</i>); Hamid R. Sadjadjpour (<i>University of California - Santa Cruz, USA</i>)	
Medium Access Control for Body Sensor Networks	210

Huaming Li, Jindong Tan (<i>Michigan Technological University, USA</i>)	
Blocking Analysis of Limited-Reconfigurable Optical Networks	216
Onur Turkcu, Suresh Subramaniam (<i>The George Washington University, USA</i>)	
Multi-Resource Manycast over Optical Burst Switched Networks	222
Qingya She, Xiaodong Huang, Nipatjakorn Kannasoot, (<i>The University of Texas at Dallas, USA</i>); Qiong Zhang (<i>Arizona State University, USA</i>); Jason P. Jue (<i>The University of Texas at Dallas, USA</i>)	
A Min-Max Optimization Problem on Traffic Grooming in WDM Optical Networks	228
Yong Wang (<i>University of Northern British Columbia and Simon Fraser University, Canada , Canada</i>); Qian-Ping Gu (<i>Simon Fraser University</i>)	
New Optical VPN Configuration using Wavelength Routers in a WDM-Passive Optical Network	234
Kimio Oguchi, Kohei Okada, Shohei Terada, Kunio Tojo (<i>Seikei University-Tokyo, Japan</i>)	
Maintaining Routing Tree in IEEE 802.16 Centralized Scheduling Mesh Networks	240
Yanbin Lu and Guoqing Zhang (<i>Chinese Academy of Sciences, China</i>)	
Interleaving Techniques for W-CDMA Linear Equalization Receivers	246
João Carlos Silva (<i>Instituto Superior Técnico-Instituto de Telecomunicações, Portugal</i>); Rui Dinis (<i>Instituto Superior Técnico - Instituto de Sistema e Robótica, Portugal</i>); Nuno Souto (<i>Instituto Superior Técnico-Instituto de Telecomunicações, Portugal</i>)	
Optimal Sniffers Deployment On Wireless Indoor Localization	251
Yiming Ji (<i>University of South Carolina-Beaufort, USA</i>); Saad Biaz, Shaoen Wu, Bing Qi (<i>Auburn University, USA</i>)	
Human Perceivable Authentication: An Economical Solution for Security Associations in Short-Distance Wireless Networking	257
Men Long, David Durham (<i>Intel Corporation, USA</i>)	
Performance Evaluation of The SYN-MAC Protocol in Multihop Wireless Networks	265
Lei Pan, Hongyi Wu (<i>University of Louisiana at Lafayette, USA</i>)	
Energy-Efficient Fault-Tolerant Mechanism for Clustered Wireless Sensor Networks	272
Yongxuan Lai, Hong Chen (<i>Renmin University of China, P.R.China</i>)	
Enhanced Synchronized Medium Access Control Protocol for Wireless Ad Hoc Networks	278
Xiaojun Cao, Shenbo Liu (<i>Georgia State University, USA</i>); Lei Pan Hongyi Wu (<i>University of Louisiana at Lafayette , USA</i>)	
Evaluating Mobile Ad Hoc Networks: A Performance Index and Statistical Model	284
Ikhlaz Ajjbar, Dmitri Perkins (<i>University of Louisiana at Lafayette, USA</i>)	
Protected Working Lightpath Envelope: a New Paradigm for Dynamic Survivable Routing	291
Rong He Kee, Chaing Chua, Gurusamy Mohan (<i>National University of Singapore, Singapore</i>)	
An Approximation Algorithm for Provisioning of Survivable Multicast Sessions in WDM Networks	297
Hongbin Luo, Lemin Li (<i>Beijing Jiaotong University University of Electronic Science and Technology of China</i>)	
New Techniques for Efficient Traffic Grooming in WDM Mesh Networks	303
Arunita Jaekel, Ataul Bari, Ying Chen, Subir Bandyopadhyay (<i>University of Windsor, UK</i>)	
An Overlay Approach for Enabling Access to Dynamically Shared Backbone GMPLS Networks	309
Xiudian Fang, Malathi Veeraghavan, Mark E. McGinley, Robert W. Gisiger (<i>University of Virginia, USA</i>)	
Optimal Packet Allocation with Airtime Constraint for Multi-Access Links	315
Jong-Ok Kim, Toshiaki Yamamoto, Akira Yamaguchi, and Sadao Obana (<i>ATR Adaptive Communication Laboratories-Keihanna Science City, Japan</i>)	
A Bio-Inspired Robust Routing Protocol for Mobile Ad Hoc Networks	321
Kenji Leibnitz, Naoki Wakamiya, Masayuki Murata (<i>Osaka University, Japan</i>)	
Efficient Timeout Checking Mechanism for Traffic Control	327
Noriaki Kamiyama, Tatsuya Mori, Ryoichi Kawahara, Eng Keong Lua (<i>NTT Service Integration Laboratories, Japan</i>)	

Zero Latency Queuing System Based on Deficit Round Robin	334
Byoung Chul Kim, In Suk Chun (<i>Samsung Electronics Co., LTD., Korea</i>)	
Protection Mechanisms for Well-behaved TCP Flows from Tampered-TCP at Edge Routers	340
Junichi Maruyama, Go Hasegawa, Masayuki Murata (<i>Osaka University, Japan</i>)	
Decentralized Learning for Pricing a RED Buffer	346
Patrick Maille (<i>GET/ENST-Bretagne, FRANCE</i>); Bruno Tuffin (<i>IRISA/INRIA, Campus Universitaire de Beaulieu, FRANCE</i>); Yiping Xing, Rajarathnam Chandramouli (<i>Stevens Institute of Technology, USA</i>)	
Multi-channel Jamming Attacks using Cognitive Radios	352
Ashwin Sampath, Hui Dai, Haitao Zheng, Ben Y. Zhao (<i>University of California at Santa Barbara, USA</i>)	
Multi-Radio Coexistence: Challenges and Opportunities	358
Jing Zhu, Alan Waltho, Xue Yang, Xingang Guo (<i>Intel Corporation, USA</i>)	
Pipelined Cyclic Redundancy Check (CRC) Calculation	365
Mathys Walma (<i>Intel Corporation, USA</i>)	
Reduce IP Address Fragmentation through Allocation	371
Mei Wang, Larry Dunn (<i>Cisco Systems</i>); Wei Mao, Tao Chen (<i>China Internet Network Information Center, China</i>)	
Statistical Bandwidth Sharing in End-to-End Connectivity Management over Bandwidth-provisioned Networks	377
Kaliappa Ravindran, Mohammad Rabby (<i>The City University of New York, USA</i>)	
On the Bounded-Delay Minimum-Cost Path Problem of Quality-of-Service Routing	384
H. K. Dai, Y. Du (<i>Oklahoma State University, USA</i>)	
On Short Forward Error-Correcting Codes for Wireless Communication Systems	391
Sheng Tong (<i>Xidian University, P.R. China</i>); Dengsheng Lin (<i>University of Electronic Science and Technology, P.R. China</i>); Aleksandar Kavèiæ (<i>University of Hawaii, USA</i>); Baoming Bai (<i>Xidian University, P.R. China</i>); Li Ping (<i>City University of Hong Kong, Hong Kong</i>); ()	
Power Control and Maximum Flows of Wireless Lattice Networks	397
Wing Shing Wong (<i>Chinese University of Hong Kong, China</i>)	
An Efficient Detection Technique for SC-FDE Systems with Multiple Packet Collisions	402
R.Dinis (<i>ISR-IST, Tech. Univ. of Lisbon, Portugal</i>); M. Serrazina, P.Carvalho (<i>UNINOVA, FCT-UNL, Monte da Caparica, Portugal</i>)	
Impact of Imperfect Channel Estimation on the Performance of M-QAM Hierarchical Constellations with Diversity	408
Nuno Souto (<i>ADETTI/ISCTE, IT/IST, Portugal</i>); Rui Dinis (<i>ISR-IST, Tech. Univ of Lisbon, Portugal</i>); João Carlos Silva, Francisco Cercas (<i>ADETTI/ISCTE, IT/IST, Portugal</i>)	
Utility Fair Resource Allocation Based on Game Theory in OFDM Systems	414
Tiankui Zhang Zhimin Zeng, Chunyan Feng, Jieying Zheng (<i>Beijing University of Posts and Telecommunications, P.R. China</i>); Dongtang Ma (<i>National University of Defense Technology, P.R. China</i>)	
A New Parameter for Channel Identification in UWB Indoor Environments	419
Lorenzo Mucchi., Patrizio Marcocci (<i>University of Florence Via Santa Marta, Italy</i>)	
Fair Efficiency, or Low Average Delay without Starvation	424
Sergey Gorinsky, Christoph Jechlitschek (<i>Washington University, USA</i>)	
Relay-enhanced Cellular Performance of OFDMATDD System for Mobile Wireless Broadband Services	430
Kyungmi Park, Chung G. Kang (<i>Korea University, Korea</i>); Daeyoung Chang, Seungho Song, Jongguk Ahn, Jongtae Ihm (<i>SK Telecom Access Network R&D Center, Korea</i>)	
Utility-Based Routing in Communication Networks with Unstable Links	436
Mingming Lu, Jie Wu (<i>Florida Atlantic University, USA</i>)	
Attack Containment Framework for Large-Scale Critical Infrastructures	442

Hoang Nguyen, Klara Nahrstedt (*University of Illinois at Urbana-Champaign, USA*)

On the Power and Rate Control in IEEE 802.11 WLANs – A Game Theoretical Approach	450
Lin Chen, Jean Leneutre (<i>Ecole Nationale Supérieure des Telecommunications, France</i>)	
Optimization Models for Streaming in Multihop Wireless Networks	457
Zongpeng Li (<i>University of Calgary, Canada</i>); Baochun Li, Mea Wang (<i>University of Toronto, Canada</i>)	
Analysis of Retry Limit for Supporting VOIP in IEEE 802.11E EDCA WLANs	464
Byung Joon Oh, Chang Wen Chen (<i>Florida Institute of Technology, USA</i>)	
ICA-based Noise Reduction for Mobile Phone Speech Communication	470
Zhipeng Zhang, Minoru Etoh (<i>NTT DoCoMo, Japan</i>)	
Channel-Adaptive Multiple Description Coding for Wireless Video Streaming	474
Joohee Kim, Ji-Cheol Hong (<i>Inha University, Korea</i>)	
k-hop Backbone Formation in Ad Hoc Networks	479
Paolo Bellavista, Eugenio Magistretti (<i>University of Bologna, Italy</i>)	
Localization of Wireless Sensor Nodes Using Proximity Information	485
Piyush Agrawal, R. K. Ghosh (<i>Indian Institute of Technology, India</i>); Sajal K. Das (<i>The University of Texas at Arlington, USA</i>)	
Multi-Server Loss System with T-Limited Service for Traffic Control in Information Networks	491
Yoshitaka Takahashi, (<i>Waseda University, Japan</i>); Y. Shikata (<i>Shobi University, Japan</i>); K. Okada (<i>National Institute of Information and Communications, Tokyo</i>); N. Komatsu (<i>Waseda University, Japan</i>)	
A Voronoi Approach for Scalable and Robust DV-Hop Localization System for Sensor Networks	497
Azzedine Boukerche (<i>University of Ottawa, Canada</i>); Horacio A.B.F. Oliveira (<i>University of Ottawa, Canada, Federal University of Amazonas, Brazil and Federal University of Minas Gerais, Brazil</i>); Eduardo F. Nakamura (<i>Federal University of Minas Gerais, Brazil and FUCAPI – Analysis, Research and Technological Innovation Center, Brazil</i>); Antonio A.F. Loureiro (<i>Federal University of Minas Gerais, Brazil</i>)	
Signaling Transport Options in GMPLS Networks: In-band or Out-of-band	503
Malathi Veeraraghavan, Tao Li (<i>University of Virginia, USA</i>)	
Enhancing Robustness Under Dual-Link Failures	510
Sandeep Kour Ahuja, Srinivasan Ramasubramanian (<i>University of Arizona, USA</i>)	
TCP-ENG: Dynamic Explicit Congestion Notification for TCP over OBS Networks	516
Basem Shihada, Pin-Han Ho (<i>University of Waterloo, Canada</i>); Qiong Zhang (<i>Arizona State University, USA</i>)	
Large-Scale QoS-Aware Service-Oriented Networking with a Clustering-Based Approach	522
Jingwen Jin (<i>Intel Corporation, USA</i>); Jin Liang, Jingyi Jin, Klara Nahrstedt (<i>University of Illinois at Urbana-Champaign, USA</i>)	
QoS-based Discovery and Ranking of Web Services	529
Eyhab Al-Masri, Qusay H. Mahmoud (<i>University of Guelph, Canada</i>)	
WS-Advisor: A Task Memory for Service Composition Frameworks	535
Rosanna Bova (<i>LIRIS, University Lyon I, France</i>); Hye-young Paik (<i>CSE, University of New South Wales, Australia</i>); Salima Hassas (<i>LIESP, University Lyon I, France</i>); Salima Benbernou and Boualem Benatallah (<i>CSE, University of New South Wales, Australia</i>)	
Applying Wavelet De-noising to Improve TCP Throughput in AQM queues with Existence of Unresponsive Traffic	541
Yi Pan, Wei K. Tsai, Tatsuya Suda (<i>University of California – Irvine, USA</i>)	
Design and Empirical Evaluation of Control Scheme for End-to-End Delay Stabilization and Packet Loss Improvement in Broadband IP Network	549
Dai Yamamoto ., Hideki Tode, Toshihiro Masaki, Koso Murakami (<i>Osaka University, Japan</i>)	
Load-Balanced Routing in Ad hoc Networks	556

Sudharsan Rangarajan (<i>University of California, Santa Cruz, USA</i>); J.J. Garcia-Luna-Aceves (<i>Palo Alto Research Center, USA</i>)	
Network-Aware State Update For Large Scale Mobile Games	563
Yang Yu, Zhu Li, Larry Shi (<i>Motorola Labs</i>); Yi-Chiun Chen, Hua Xu (<i>Motorola Networks & Enterprise</i>)	
Packet Scheduling with Buffer Management for Fair Bandwidth Sharing and Delay Differentiation	569
Dennis Ippoliti, Xiaobo Zhou (<i>University of Colorado at Colorado Springs, USA</i>); Liqiang Zhang (<i>Indiana University South Bend, USA</i>)	
Joint Modeling of Mobility and Communication in a V2V Network for Congestion Amelioration	575
Pritesh Patwa (<i>Microsoft Corporation Computer Science, USA</i>); Rudra Dutta (<i>North Carolina State University, USA</i>)	
On the Suitability of Framed Slotted Aloha based RFID Anti-collision Protocols for Use in RFID-Enhanced WSNs	583
Dheeraj K. Klair, Kwan-Wu Chin and Raad Raad (<i>University of Wollongong, Australia</i>)	
Packet Scheduling for Scalable Video Streaming over Lossy Packet Access Networks	591
Ehsan Maani, Yijing Luo, Peshala Pahalawatta, Aggelos Katsaggelos (<i>Northwestern University, USA</i>)	
SIP Vulnerabilities and Anti-SPIT Mechanisms Assessment	597
G.F. Marias, S. Dritsas, M. Theoharidou, J. Mallios, D. Gritzalis (<i>Athens University of Economics and Business (AUEB), Greece</i>)	
Fates: A Granular Approach to Real-Time Anomaly Detection	605
Jeff Janies, Chin-Tser Huang (<i>University of South Carolina, USA</i>)	
Evaluation of Security Protocols for the Session Initiation Protocol	611
Eun-Chul Cha, Hyoung-Kee Choi, Sung-Jae Cho (<i>Sungkyunkwan University, Korea</i>)	
On IP Traffic Matrix Estimation	617
Liansheng Tan (<i>The Australian National University, Australia</i>); Xiangjun Wang (<i>Normal University, PR China</i>)	
Greedy Face Routing with Face ID Support in Wireless Networks	625
Shao Tao, A.L. Ananda, Chan Mun Choon (<i>National University of Singapore, Singapore</i>)	
Ethernet Topology Discovery for Networks with Incomplete Information	631
Hassan Gobjuka, Yuri Breitbart (<i>Kent State University, USA</i>)	
A Proactive Test Based Differentiation Technique to Mitigate Low Rate DoS Attacks	639
Amey Shevtekar, Nirwan Ansari (<i>New Jersey Institute of Technology, USA</i>)	
Safeguarding Mutable Fields in AODV Route Discovery Process	645
Kulasekaran A. Sivakumar, Mahalingam Ramkumar (<i>Mississippi State University, USA</i>)	
Containing Hitlist-Based Worms with Polymorphic Signatures	652
Theodor Richardson (<i>Towson University, USA</i>); Chin-Tser Huang (<i>University of South Carolina, USA</i>)	
Economics of Security: Research Challenges	658
R. Chandramouli (<i>Stevens Institute of Technology, USA</i>)	
Interplay of Security and Reliability using Non-uniform Checkpoints	663
Kiranmai Bellam (<i>Auburn University, USA</i>); Raghava K. Vudata (<i>New Mexico Institute of Mining and Technology, USA</i>); Xiao Qin, Ziliang Zong, Xiaojun Ruan (<i>Auburn University, USA</i>); Mais Nijim (<i>University of Southern Mississippi, USA</i>)	
Exploring Load-Balance to Dispatch Mobile Sensors in Wireless Sensor Networks	669
You-Chiun Wang, Wen-Chih Peng, Min-Hsien Chang, Yu-Chee Tseng (<i>National Chiao Tung University, Taiwan</i>)	
Outage Analysis of a University Campus Network	675
Baek-Young Choi (<i>University of Missouri, USA</i>); Sejun Song (<i>Positive Networks, USA</i>); George Koffler, Deep Medhi (<i>University of Missouri, USA</i>)	
Diffusion Approximations for the GI/G/c/K queue	681

Akira Takahashi, Y. Takahashi (<i>Waseda University, Japan</i>); Shigeru Kaneda, Noriteru Shinagawa (<i>NTT DoCoMo, Japan</i>)	
C3P: A Cooperant Congestion Control Protocol in High Bandwidth-Delay Product Networks	687
Jianxin Wang, Hao Gong (<i>Central South University, China</i>); Jianer Chen (<i>Texas A&M University, USA</i>)	
Efficient Call Admission Control for MPEG-4 Wireless Videoconference Traffic	693
Polychronis Koutsakis (<i>McMaster University, Canada</i>)	
SHM: Scalable and Backbone Topology-Aware Hybrid Multicast	699
Shaofei Lu (<i>Central South University, China; and Hunan University, China</i>); Jianxin Wang (<i>Central South University, China</i>); Guanzhong Yang, Chao Guo (<i>Hunan University, China</i>)	
Coordinate-Based Routing for Overlay Networks	704
Vasileios Pappas (<i>IBM Research, T.J. Watson, USA</i>); Volker Hilt, Markus Hofmann (<i>Bell Labs/Alcatel-Lucent, USA</i>)	
Use of Dependency Information for Memory Optimizations in Distributed Streaming Applications	712
Nissim Harel., Hasnain A. Mandviwala., Umakishore Ramachandran (<i>Georgia Institute of Technology, USA</i>); Kath Knoke (<i>Intel Corporation, USA</i>)	
On Improving the Reliability of Packet Delivery in Dense Wireless Sensor Networks	718
Junsuk Shin, Umakishore Ramachandran, Mostafa Ammar (<i>Georgia Institute of Technology, USA</i>)	
An Error-aware and Energy Efficient Routing Protocol in MANETs	724
Liansheng Tan (<i>The Australian National University, Australia</i>); Peng Yang (<i>Central China Normal University, P.R.China</i>); Sammy Chan (<i>City University of Hong Kong, Hong Kong</i>)	
A Fast Delivery Protocol for Total Order Broadcasting	730
Li Ou, Xubin He (<i>Tennessee Technological University, USA</i>); Christian Engelmann (<i>Oak Ridge National Laboratory, USA; and The University of Reading, Reading, UK</i>); Stephen L. Scott (<i>Oak Ridge National Laboratory, USA</i>)	
An Energy-Efficient Scheduling Algorithm Using Dynamic Voltage Scaling for Parallel Applications on Clusters	735
Xiaojun Ruan, Xiao Qin, Ziliang Zong, Kiranmai Bellam (<i>Auburn University, Auburn, USA</i>); Mais Nijim (<i>University of Southern Mississippi, USA</i>)	
Motivating and Modeling SIP Offload	741
Jia Zou, Yiqi Dai (<i>Tsinghua University, China</i>)	
An FEC-based Reliable Data Transport Protocol for Underwater Sensor Networks	747
Peng Xie, Jun-Hong Cui (<i>University of Connecticut, USA</i>)	
Design of a Network Service Architecture	754
Sivakumar Ganapathy and Tilman Wolf (<i>University of Massachusetts, USA</i>)	
Node-Replacement Policies to Maintain Threshold-Coverage in Wireless Sensor Networks	760
Sachin Parikh, Vinod M. Vokkarane, Liudong Xing, Dayalan Kasilingam (<i>University of Massachusetts Dartmouth, USA</i>)	
IEEE 802.11e EDCA QoS Provisioning with Dynamic Fuzzy Control and Cross-Layer Interface	766
Chao-Lieh Chen (<i>Kun-Shan University, Taiwan</i>)	
Ringed Filters for Peer-to-Peer Keyword Searching	772
Yuichi Sei (<i>The University of Tokyo</i>); Shinichi Honiden (<i>The University of Tokyo, and National Institute of Informatics, Japan</i>)	
Provisioning Link Layer Proportional Service Differentiation in Wireless Ad Hoc Networks with MIMO links	780
Amrit Kumar, Aura Ganz (<i>University of Massachusetts Amherst, USA</i>)	
A New Network Layer for Mobile Ad Hoc Wireless Networks Based on Assignment Router Identity Protocol ..	786
Chaorong Peng, Chang Wen Chen (<i>Florida Institute of Technology, USA</i>)	
Generalized Aho-Corasick Algorithm for Signature Based Anti-Virus Applications	792
Tsern-Huei Lee (<i>National Chiao Tung University, Taiwan</i>)	

A Heuristic DDoS Flooding Attack Detection Mechanism Analyses based on the Relationship between Input and Output Traffic Volumes	798
Fengxiang Zhang (<i>Graduate University for Advanced Studies, Japan</i>); Shunji Abe (<i>National Institute of Informatics, Japan</i>)	
NEKAP: Intruder Resilient and Energy Efficient Key Establishment in Sensor Networks	803
Sérgio de Oliveira (<i>Presidente Antônio Carlos University, Brazil, and Federal University of Minas Gerais, Brazil</i>); Hao Chi Wong, José Marcos Nogueira (<i>Federal University of Minas Gerais, Brazil</i>)	
Travelling without Moving: 802.11 Access Points backed by Secure NETLMM	809
Julien Laganier, Matthias Flege, Alf Zugenmaier, Anand Prasad (<i>DoCoMo Communications Laboratories Europe GmbH Germany</i>); James Kempf, Jonathan Wood (<i>DoCoMo Communications Laboratories USA, Inc. USA</i>)	
Reduction of Frame Memory Accesses and Motion Estimation Computations in MPEG Video Encoder	817
Wei-Cheng Lin, Chung-Ho Chen (<i>National Cheng-Kung University, Taiwan</i>)	
MPEG Video Bit-Rate Shaping Technique Using Smooth-Transcoding Algorithm	821
I Gusti Bagus, Baskara Nugraha, Hiroyoshi Morita (<i>The University of Electro-Communications, Japan</i>)	
Water Level Detection from Video with Fir Filtering	826
Masahiro Iwahashi, Sakol Udomsiri (<i>Nagaoka University of Technology, Japan</i>)	
Facts of LIFE	832
Angela I. Barbero (<i>University of Valladolid, Spain</i>); Øyvind Ytrehus (<i>University of Bergen, Norway</i>)	
A Novel Disk Layout Optimization for Networked Storage Systems	838
Tao Xie, Yao Sun (<i>San Diego State University, USA</i>)	
Layered Clustering Communication Protocol for Wireless Sensor Networks	844
Yong Wang, Byrav Ramamurthy (<i>University of Nebraska-Lincoln, USA</i>)	
A Network-flow based Integral Optimal Algorithm for Lexicographic Maximum Lifetime Routing in Wireless Sensor Networks	850
Maulin Patel, S. Venkatesan and R. Chandrasekaran (<i>University of Texas at Dallas, USA</i>)	
Broadcast Collision Avoidance in Wireless Packet Networks	856
Jun Peng (<i>University of Texas - Pan American, USA</i>)	
Evaluation of Mesh-Enhanced VANET Deployment Models	862
Niranjan Potnis, Atulya Mahajan (<i>Florida State University, USA</i>); Kartik Gopalan (<i>State University of New York at Binghamton, USA</i>); Andy Wang (<i>Florida State University, USA</i>)	
A SpaceTime Oriented Macroprogramming Paradigm for Push-Pull Hybrid Sensor Networking	868
Hiroshi Wada, Pruet Boonma and Junichi Suzuki (<i>University of Massachusetts, USA</i>)	
Sensitivity Study of Sensors' Coverage within Wireless Sensor Networks	876
Sami Habib Maytham Safar (<i>Kuwait University, Kuwait</i>)	
Helper Node Trajectory Control for Connection Assurance in Proactive Mobile Wireless Networks	882
Lillian L. Dai, Vincent W.S. Chan (<i>Massachusetts Institute of Technology, USA</i>)	
An Efficient Multi-Mode Channel Tracking Scheme under Different Velocities in OFDM Systems	888
Yu-Tao Hsieh, Pang-An Ting (<i>SoC Technology Center, Taiwan</i>)	
A Performance Evaluation of Vertical Handoff Scheme between Mobile -WiMax and Cellular Networks	894
Seongsoo Park, JaeHwang Yu, JongTae Ihm (<i>SK Telecom, KOREA</i>)	
Quantitative Dynamic Interdependency Measure and Significance Analysis for Cross-Layer Design under Uncertainty	900
Song Ci (<i>University of Nebraska-Lincoln, USA</i>); Hai-Feng Guo (<i>University of Nebraska-Omaha, USA</i>)	
Loop-Free Link-State Routing	905
Pierre Fransson, Lenka Carr-Motyckova (<i>Lulea University of Technology, Sweden</i>)	
Delay Analysis of Combined Input-Crosspoint Queueing Switches	912

Ge Nong (<i>Sun Yat-Sen University, PRC</i>); Ning Situ (<i>University of Houston, USA</i>); Mounir Hamdi (<i>Hong Kong University of Science and Technology, Hong Kong</i>)	
Adaptive Performance Control of Internet-based Grids in a Dynamic Environment	918
Paolo Vercesi (<i>ESTECO, ITALY</i>); Alberto Bartoli (<i>DEEI, University of Trieste, Italy</i>)	
THON: A Tessellation-based Hierarchical Overlay Network for DGET Grid Middleware	924
Benoit Hudzia, Tahar Kechadi (<i>University College Dublin, Ireland</i>)	
Work-Conserving Fair-Aggregation Across Multiple Core Networks	932
Jorge A. Cobb, Zhe Xu (<i>The University of Texas at Dallas, USA</i>)	
Distributed Channel Allocation In Multi-Radio Wireless Mesh Networks	939
Jeroen Avonts, Nik Van den Wijngaert, Chris Blondia (<i>University of Antwerp - Belgium</i>)	
Resource Planning and Packet Forwarding for Next-generation Multi-hop Wireless Mesh Networks	945
Ting-Yu Lin and Kang-Lun Fan (<i>National Chiao-Tung University</i>)	
Routing in Heterogeneous Wireless Ad Hoc Networks	951
Sivaram Cheekiralla (<i>Massachusetts Institute of Technology, USA</i>); Daniel W. Engels (<i>University of Texas at Arlington, USA</i>)	
Efficient Routing Tree Construction Algorithms for Multi-Channel WiMax Networks	957
Alireza Ghiamatyoun, Mohammad Nekoui, Said Nader Esfahani (<i>University of Tehran, Iran</i>); Mehdi Soltan (<i>Stanford University, USA</i>)	
The Impact of Interference in a Distributed Base Station Scheme Managed by an Agent System	961
Philippe Leroux, S'ebastien Roy, Jean-Yves Chouinard (<i>Université Laval, Canada</i>)	
A Mobility Management and Routing Protocol Using Tree Architecture for Internet Connectivity of Mobile Ad Hoc Networks	967
Hoon Oh, Phan Anh Tan (<i>University of Ulsan, Korea</i>)	
MAC-ASA: A New MAC Protocol for WMNs	973
Roberto Santamaría, Olivier Bourdeau, Tricha Anjali (<i>Illinois Institute of Technology, USA</i>)	
Performance of 802.11b/g in the Interference Limited Regime	979
Vinay Sridhara, Hweechul Shin, Stephan Bohacek (<i>University of Delaware, USA</i>)	
A Tradeoff between Power Efficiency and Scheduling Updating Responsiveness in a TDMA Paradigm	985
V. Loscri (<i>University of Calabria, Italy</i>)	
Providing Quality of Service for Mesh Networks Using Link Delay Measurements	991
Weverton Cordeiro, Elisangela Aguiar, Waldir Moreira Júnior, Antônio Abelém (<i>Federal University of Pará, Brazil</i>); Michael Stanton (<i>Fluminense Federal University, Brazil</i>)	
A Delay-aware Auto Sleep Mode Operation for Power Saving WiMAX	997
Shengqing Zhu, Xiaoyu Ma (<i>Nanjing University, China</i>); Lujian Wang (<i>Zhejiang University City College, China</i>)	
Principles of IEEE 802.11s	1002
Guido R. Hiertz., Sebastian Max., Rui Zhao (<i>Aachen University, Germany</i>); Dee Denteneer (<i>Philips, Eindhoven, The Netherlands</i>); Lars Berlemann (<i>Swisscom, Bern, Switzerland</i>)	
A Codesign Prototyping Framework for Wireless LAN Transceivers with Smart Antennas	1008
Sebastien Roy, Jean-Francois Boudreault, Louis Dupont (<i>Université Laval, Canada</i>)	
Application of Cooperative Diversity in 802.11a Ad-hoc Networks	1016
Zhipeng, Zhao (<i>COMSIS S.A.S., France</i>); Jean-Claude Belfiore (<i>Ecole Nat. Sup. des Telecom, France</i>)	
Implementation of a Wireless Mesh Network Testbed for Traffic Control	1022
Kun-chan Lan (<i>National Cheng Kung University, Taiwan</i>); Zhe Wang, Rodney Berriman, Tim Moors, Mahbub Hassan, Lavy Libman, Maximilian Ott, Bjorn Landfeldt, Zainab Zaidi, Aruna Seneviratne (<i>National ICT Australia, Australia</i>)	
Multiple Access Interference Cancellation and Link Multiplexing for MIMO Mesh Network	1028
Kei Sakaguchi (<i>Tokyo Institute of Technology, Japan</i>); Fumie Ono (<i>Yokohama National University, Japan</i>)	

A Channel Assignment Algorithm for Multi-Radio Wireless Mesh Networks	1034
Stefano Avallone (<i>Universita di Napoli Federico II, Italy</i>); Ian F. Akyildiz (<i>Georgia Institute of Technology, USA</i>)	
Load-aware Traffic Engineering for Mesh Networks	1040
Devu Manikantan Shila, Tricha Anjali (<i>Illinois Institute of Technology, USA</i>)	
Traffic Oriented Topology Formation and Load-balancing Routing in Wireless Mesh Networks	1046
Han Zhang, Danny H.K. Tsang (<i>Hong Kong University of Science and Technology, Hong Kong</i>)	
A Scalable Link Quality Routing Protocol for Multiradio Wireless Mesh Networks	1053
Rachel de C. Paschoalino (<i>State University of Campinas,Brazil</i>); Edmundo R. M. Madeira (<i>State University of Campinas, Brazil</i>)	
NWC: Node Weight Computation in MANETs	1059
Károly Farkas (<i>University of West Hungary, Hungary</i>); Theus Hossmann, Bernhard Plattner (<i>ETH Zurich Switzerland</i>); Lukas Ruf (<i>Ruf Research & Consulting, Switzerland</i>)	
Price-Based Resource Allocation Strategies for Wireless Ad Hoc Networks with Transmission Rate and Energy Constraints	1065
Jen-Hung Huang (<i>National Chiao Tung University, Taiwan</i>); Yu-Fen Kao (<i>National Chiao Tung University, and Chung Hua University, Taiwan</i>)	
Evaluating Fairness In Heterogeneous Wireless Ad Hoc Networks	1071
Ra'ed Awdeh (<i>University of Sharjah, UAE</i>)	
Context Awareness through Cross-Layer Network Architecture	1076
M.A. Razzaque, Simon Dobson and Paddy Nixon (<i>School of Computer Science and Informatics UCD, Ireland</i>)	
Low-Latency Multichannel Wireless Mesh Networks	1082
Robert McTasney, Dirk Grunwald and Douglas Sicker (<i>University of Colorado at Boulder, USA</i>)	
Iterative Cross Layer Schemes for Throughput Maximization in Multi-Channel Wireless Mesh Networks	1088
Mohammad Nekoui, Alireza Ghiamatyoun, Said Nader Esfahani (<i>University of Tehran, Iran</i>); Mehdi Soltan (<i>Stanford University, USA</i>)	
On Improving the Precision of Localization with Minimum Resource Allocation	1093
Frank Reichenbach, Dirk Timmermann (<i>University of Rostock, Germany</i>)	
Applying Design Patterns to Wireless Sensor Network Programming	1099
Kenji Tei (<i>Waseda University, Japan and National Institute of Informatics, Japan</i>); Yoshiaki Fukazawa (<i>Waseda University, Japan</i>); Shinichi Honiden (<i>National Institute of Informatics,, Japan and The University of Tokyo, Japan</i>)	
Adaptive Probabilistic Epidemic Protocol for Wireless Sensor Networks in an Urban Environment	1105
Siok Kheng Tan, Alistair Munro (<i>University of Bristol, UK</i>)	
Algorithms for Communication in Wireless Multi-hop Ad hoc Networks using Broadcasts in Opportunistic Large Arrays (OLA)	1111
Edoardo S. Biagioni (<i>University of Hawaii at Manoa, USA</i>)	
Achieving Robustness through Caching and Retransmissions in IEEE 802.15.4-based WSNs	1117
Daniele Messina, Marco Ortolani, and Giuseppe Lo Re (<i>University of Palermo Italy</i>)	
Improved Low-Complexity Fusion Receivers for Synchronous DS-CDMA Sensor Networks	1123
Justin S. Dyer (<i>Stanford University, USA</i>); Balasubramaniam Natarajan (<i>Kansas State University, USA</i>)	
Functionally Layered Video Coding for River Surveillance	1127
Masahiro Iwahashi, Sakol Udomsiri (<i>Nagaoka University of Technology, Japan</i>)	
A Multi-Mode Video Object Segmentation Scheme for Wireless Video Applications	1131
Gökçe Dane, Khaled El-Maleh (<i>Qualcomm Inc., USA</i>); Haohong Wang (<i>Marvell Semiconductor Inc., USA</i>)	
A Post Deblocking Filter for H.264 Video	1137
Yao-Min Huang, Jin-Jang Leou, Ming-Hui Cheng (<i>National Chung Cheng University, Taiwan, Republic of China</i>)	
Robust Region-of-Interest Determination based on User Attention Model through Visual Rhythm Analysis	1143

Ming-Chieh Chi, Chia-Hung Yeh, Mei-Juan Chen, Ching-Ting Hsu (<i>National Dong Hwa University, Taiwan, R.O.C</i>)	
Fast Motion Estimation Using Hexagon-Based Search Pattern In Predictive Search Range	1149
J. C. Chiang W. T. Kuo L. Y. Su (<i>National Chung Cheng University, Taiwan</i>)	
A Fidelity Metric for Assessing Visual Quality of Color Images	1154
Chun-Hsien Chou (<i>Tatung University, Taiwan</i>); Kuo-Cheng Liu (<i>Tatung University, and Taiwan Hospitality and Tourism College, Taiwan</i>)	
Temporal Quality Evaluation for Enhancing Compressed Video	1160
Kai-Chieh Yang, Gokce Dane, and Khaled El-Maleh (<i>Qualcomm Inc., USA</i>)	
Blind Image Blur Identification in Cepstrum Domain	1166
Shiqian Wu, Zhongkang Lu, Ee Ping Ong (<i>Institute for Infocomm Research, Singapore</i>); Weisi Lin (<i>Nanyang Technological University, Singapore</i>)	
Automatic Fall Incident Detection in Compressed Video for Intelligent Homecare	1172
Chia-Wen Lin, Zhi-Hong Ling (<i>National Tsing Hua University, Taiwan</i>)	
Motion-based Background Modeling for Moving Object Detection on Moving Platforms	1178
Ming-Yu Shih, Yao-Jen Chang, Bwo-Chau Fu, Ching-Chun Huang (<i>Industrial Technology Research Institute, Taiwan, R.O.C.</i>)	
Online Selection of Tracking Features using Adaboost	1183
Ying-Jia Yeh, Chiou-Ting Hsu (<i>National Tsing Hua University, Taiwan</i>)	
Suspicious Object Detection and Robbery Event Analysis	1189
Chi-Hung Chuang (<i>National Central University, China</i>); Jun-Wei Hsieh (<i>Yuan Ze University, China</i>); Kao-Chin Fan (<i>National Central University, China</i>)	
A Mathematical Model for the Admission Control Problem in MPLS Networks with End-to-End delay Guarantees	1193
Hichem Ayed Harhira, muel Pierre (<i>Ecole Polytechnique de Montreal, Canada</i>)	
Performance of a Priority-Weighted Round Robin Mechanism for Differentiated Service Networks	1198
Y. Zhang, P.G. Harrison (<i>Imperial College London, UK</i>)	
Bottleneck Bandwidth Estimation Using Frequency Analysis	1204
T. Edwan, B. Ghita, X. Wang (<i>University of Plymouth, UK.</i>)	
Two-Phase Modeling of QoS Routing in Communication Networks	1210
Chia-Hung Wang, Hsing Luh (<i>National Chengchi University, Taiwan</i>)	
Active Queue Management Design and Development based on the Correlation of Internet Traffic	1217
Khalid S. Al-awfi (<i>Taibah University, Saudi Arabia</i>); Mike E. Woodward (<i>University of Bradford, United Kingdom</i>)	
Automated Detection of Changes in Computer Network Measurements using Wavelets	1223
Konstantinos G Kyriakopoulos, David J Parish (<i>Loughborough University, UK</i>)	
Resource Allocation for High Quality H.264 Streams Integrated with Web and MP3 Traffic over High-Speed Cellular Networks with Capture	1228
Polychronis Koutsakis (<i>McMaster University, Canada</i>)	
Bayesian Learning of Neural Networks for Mobile User Position Prediction	1234
Sherif Akoush Ahmed Sameh (<i>The American University in Cairo, Egypt</i>)	
A Network Selection Algorithm considering Power Consumption in Hybrid Wireless Networks	1240
Inwhae Joe, Won-Tae Kim, Seokjoon Hong (<i>Hanyang University, South Korea</i>)	
An Assessment of Maximum Interleaving in Reed-Solomon Coding for 3G Broadcasting	1244
Kyungtae Kang, Heonshik Shin, Jinwoo Park (<i>Seoul National University, Korea</i>)	
Analysis of a Cell-based Call Admission Control Scheme for QoS Support in Multimedia Wireless Networks .	1250
Nidal H. Nasser (<i>University of Guelph, Canada</i>); Sghaier Guizani (<i>Qatar University, Qatar</i>)	

Evaluating Xen for Router Virtualization	1256
Norbert Egi (<i>Lancaster University, UK</i>); Adam Greenhalgh, Mark Handley (<i>University College London, UK</i>); Mickael Hoerdt, Laurent Mathy (<i>Lancaster University, UK</i>); Tim Schooley (<i>University College London, UK</i>)	
Honey Plotter and the Web of Terror	1262
Mark Withall, M. Shirantha de Silva, David Parish, Iain Phillips (<i>Loughborough University, UK</i>)	
Investigating QoS Performance on a Testbed Network	1267
Jumpot Phuritakul, Kien Nguyen, Michihiro Koibuchi, Yusheng Ji, Kensuke Fukuda, Shunji Abe, Jun Matsukata, Shigeo Urushidani, and Shigeki Yamada (<i>National Institute of Informatics (NII), Japan</i>)	
Analysis of Discrete Time Queuing Networks under Buffer Threshold Scheme	1273
Irfan Awan (<i>University of Bradford, UK</i>); Lin Guan (<i>Loughborough University RSI, UK</i>); Xingang Wang (<i>University of Plymouth, UK</i>)	
A Service Level Agreement-based Web Services Performance	1279
Chuanchang Liu (<i>Beijing University of Posts and Telecommunications, Beijing, P.R. China</i>); Zhongwei Li (<i>Nankai University, Tianjin, P.R. China</i>); Junliang Chen (<i>Beijing University of Posts and Telecommunications, Beijing, P.R. China</i>); Xiao Lin (<i>Beijing University of Posts and Telecommunications, Beijing, P.R. China</i>); Dongtang Ma (<i>National University of Defense Technology, Changsha, P.R. China</i>); ()	
A Patterned Preamble MAC Protocol for Wireless Sensor Networks	1285
Inwheel Joe, Hanjong Ryu (<i>Hanyang University, South Korea</i>)	
A Framework for Querying Sensor Networks Using Mobile Devices	1291
Shourui Tian, Sol M. Shatz (<i>University of Illinois at Chicago, USA</i>); Yang Yu (<i>Motorola Labs, USA</i>)	
Dual-Sink: Using Mobile and Static Sinks for Lifetime Improvement in Wireless Sensor Networks	1297
Xiaobing Wu, Guihai Chen (<i>Nanjing University, China</i>)	
A Comparison of Power Management Techniques in Wireless RF Direction Finding Sensor Networks	1303
Mickey Batson, John McEachen, Murali Tummala (<i>Naval Postgraduate School - Monterey, USA</i>)	
A Novel Signal Reconstruction Algorithm for Perception based Data Reduction in Haptic Signal Communication	1309
Julius Kammerl, Peter Hinterseer and Eckehard Steinbach (<i>Technische Universitat Munchen, Germany</i>)	
Transport Protocols for Remote Programming of Network Robots within the context of Telelaboratories for Education: A Comparative Analysis	1315
Raul Wirz, Raul Marin (<i>University Jaume I, Spain</i>); José M. Claver (<i>University of Valencia, Spain</i>); Josep Fernández (<i>University Politecnica of Catalonia, Spain</i>); Enric Cervera (<i>University Jaume I, Spain</i>)	
A Virtual Decomposition Control based Communication Network for Modular Robots Applications	1321
Tom Lamarche and Wen-Hong Zhu (<i>Canadian Space Agency, Canada</i>)	
Sensor Response and Sensor Network Development for Practical Combustors	1327
Miao Yu, Ashwani Gupta (<i>University of Maryland, USA</i>); Kenneth M. Bryden (<i>Iowa State University, USA</i>)	
Sensor Network with Delay Tolerance (SeNDT)	1333
Paul McDonald, Dermot Geraghty, Ivor Humphreys, Stephen Farrell, Vinny Cahill (<i>Trinity College Dublin</i>)	
Design Techniques for Streamlined Integration and Fault Tolerance in a Distributed Sensor System for Line-crossing Recognition	1339
Chung-Ching Shen, Roni Kupershtok, Shuvra S. Bhattacharyya, Neil Goldsman (<i>University of Maryland, USA</i>)	
Reducing Communication Overhead of Key Distribution Schemes for Wireless Sensor Networks	1345
E.C. Park, I.F. Blake (<i>University of Toronto, Canada</i>)	
A Study on Context-aware Privacy Protection for Personal Information	1351
Qingsheng Zhang, Yong Qi, Jizhong Zhao, Di Hou, Tianhai Zhao (<i>Xi'an Jiaotong University, China</i>); Liang Liu (<i>IBM China Research Lab, China</i>)	
Security and Privacy Analysis of RFID Authentication Protocol for Ubiquitous Computing	1359
Hyun-Seok Kim (<i>Korea Military Academy, Korea</i>); Jin-Young Choi (<i>Korea University, Korea</i>)	