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Speaker: Nageswara S. V. Rao, Corporate Fellow, Oak Ridge National Laboratory

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Speaker: Klara Nahrstedt, Professor, University of Illinois, Urbana-Champaign, USA

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Speaker: Mario Gerla, Professor, University of California, Los Angeles, USA

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Shu-Ching Chen, Professor, Florida International University, USA

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NRQS: Network Routing, QoS and Security

WN III: Wireless Networks III

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Application Layer FEC with Long Time Interleaver and Fast Tune-in for Mobile Satellite TV Services
Valentina Pullano (University of Bologna, Italy); Cornelius Hellge (Fraunhofer Institute for Telecommunications - Heinrich-Hertz-Institute, Germany); Manuel Hensel (Fraunhofer Institute for Telecommunications - Heinrich-Hertz-Institute, Germany); Giovanni Emanuele Corazza (University of Bologna, Italy); Thomas Schierl (Fraunhofer HHI, Germany)
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An Edge Router Based Distributed Admissions Control Over Real-Time Media Streams
Jun Liu (University of North Dakota, USA)
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Performance Improvement of the Segment SYNC-Based Spectrum Sensing for ATSC TV Signal
Seung Joon Lee (Kangwon National University, Korea)
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Low RSSI in WLANs: Impact on Application-Level Performance
Markus Gerhard Tauber (AIT Austrian Institute of Technology GmbH, Austria); Saleem N Bhatti (University of St Andrews, United Kingdom)
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Restorability on 3-connected WDM Networks Under Single and Dual Physical Link Failures
Michael Jensen (Aalborg University, Denmark); Jose M Gutierrez (Aalborg University, Denmark); Tahir Riaz (Aalborg University, Denmark); Jens Myrup Pedersen (Aalborg University, Denmark)
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CNC IV: Communication Theory

Power Allocation for Time Division Broadcast Protocol over Rayleigh Fading Channels
Dong-Woo Lim (Korea Advanced Institute of Science and Technology, Korea); Chang-Jae Chun (Korea Advanced Institute of Science and Technology, Korea); Jae-Hwan Lee (Korea Advanced Institute of Science and Technology, Korea); Hyung Myung Kim (Korea Advanced Institute of Science and Technology, Korea)
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Lagrangian Relaxation Approach for Low Complexity Channel Assignment in Multi-Cell WLANs
Mohamed Elwekeil (Egypt-Japan University of Science and Technology, Egypt); Masoud Alghoniemy (Egypt-Japan University of Science and Technology, Egypt); Hiroshi Furukawa (Kyushu University, Japan); Osamu Muta (Kyushu University, Japan)
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TFRC-CR: An Equation-based Transport Protocol for Cognitive Radio Networks
Abdulla Al-Ali (Northeastern University & Qatar University, USA); Kaushik Chowdhury (Northeastern University, USA)
pp. 143-148

Utilizing Distance Distribution in Determining Topological Characteristics of Multi-hop Wireless Networks
Husnu Narman (University of Oklahoma, USA); Turgay Korkmaz (University of Texas at San Antonio, USA); Suleyman Tek (University of the Incarnate Word, USA)
pp. 149-154

CNC V: Next Generation Networking

CPS II: CPS System Modeling

Qualcomm Distinguished Lecture III: Recent Trends in Ad hoc, Sensor, and Mesh Networks: From Fundamental to Specialized Disaster-Resilient Applications

Speaker: Nei Kato, Professor, Tohoku University, Japan

CNC VI: Communications QoS

CNC VII: Signal Processing for Communications

CNC VIII: Wireless Systems

CPS III: Networked CPS Design

Effects of Femtocell Deployment on Interference to Macrocell Users in a Cellular Network
Avani Dalal (University of Cincinnati, USA); Hailong Li (University of Cincinnati, USA); Dharma P Agrawal (University of Cincinnati, USA)
pp. 321-326

Spoofing Cyber Attack Detection in Probe-based Traffic Monitoring Systems using Mixed Integer Linear Programming
Edward Canepa (King Abdullah University of Science and Technology, Saudi Arabia); Christian Claudel (Kaust University, Saudi Arabia)
pp. 327-333

Lightweight Internet Protocols for Web Enablement of Sensors using Constrained Gateway Devices
Soma Bandyopadhyay (TATA Consultancy Services, India); Abhijan Bhattacharyya (Tata Consultancy Services Ltd., India)
pp. 334-340

Ongoing Challenges in Automated Cyberphysical Cross-Domain Design
Kunal Arya (University of California, Santa Barbara, USA); Joseph Poverelli (University of California, Santa Barbara, USA); Forrest Brewer (University of California, Santa Barbara, USA)
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Keynote Talk: A Clean Slate Approach to Secure Protocols for Wireless Networks

Speaker: P. R. Kumar, Professor and College of Engineering Chair in Computer Engineering, Texas A&M University, USA

Qualcomm Distinguished Lecture IV: One New Algorithm for Ten New Applications

Speaker: Charles Elkan, Professor, University of California, San Diego, USA

CIS I: Communications and Information Security I

Self-Healing Group Key Distribution with Extended Revocation Capability
Tomasz Rams (AGH University of Science and Technology, Poland); Piotr Pacyna (AGH University of Science and Technology, Poland)
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Establishing Secure Measurement Matrix For Compressed Sensing Using Wireless Physical Layer Security
Ruslan Dautov (Rochester Institute of Technology, USA); Gill R Tsouri (Rochester Institute of Technology, USA)
pp. 354-358

TFD: A Multi-pattern Matching Algorithm for Large-scale URL Filtering
Zhenlong Yuan (Tsinghua University, P.R. China); Baohua Yang (Tsinghua University, P.R. China); Xiaoqi Ren (Tsinghua University, P.R. China); Yibo Xue (Tsinghua university, P.R. China)
pp. 359-363

VEGK: Virtual ECC Group Key for Wireless Sensor Networks
Ahmed E. El-Din (Cairo University, Egypt); Rabie Ramadan (Cairo University, Egypt); Magda Fayek (Cairo University, Egypt)
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IEEE 802.11 Anomaly-based Behavior Analysis
Hamid Alipour (University of Arizona & NSF Center for Autonomic Computing, USA); Youssif Al-Nashif (University of Arizona, USA); Salim Hariri (University of Arizona, USA)
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OGN: Optical and Grid Networking

WC I: Wireless Communications I

Low-complexity Iterative Demapping for Rotated QAM Constellations in DVB-T2 System
Feng Yang (Shanghai Jiaotong University, P.R. China); Bo Zhang (ShangHai JiaoTong University, P.R. China); Lianghui Ding (Shanghai Jiao Tong University, P.R. China)
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A New Analysis of the DS-CDMA Cellular Downlink Under Spatial Constraints
Matthew Valenti (West Virginia University, USA); Don Torrieri (US Army Research Laboratory, USA); Salvatore Talarico (West Virginia University, USA)
pp. 425-430

An Initial Study of DSA Cost and Capacity Trades under Imperfect Awareness
Todd Martin (George Mason University & Science and Technology Associates, Inc., USA); Kuochu Chang (George Mason University, USA)
pp. 431-436

Plenary Talk: Strategic Design: Tripling the Spectrum Efficiency

Speaker: Mihaela van der Schaar, Chancellor's Professor, University of California, Los Angeles, USA

CLD: Cloud Computing and Networking

e-Healthcare Cloud Computing Application Solutions
Wei Liu (Georgia Gwinnett College, USA); Ek Park (CSU-Chico, USA)
pp. 437-443

Improved P2P Content Discovery by Exploiting User Social Patterns
Reza Farahbakhsh (Institut Mines-Telecom, Telecom Sud-Paris & Paris VI, France); Noel Crespi (Institut Mines-Télécom, Télécom SudParis, France); Angel Cuevas (Universidad Carlos III de Madrid, Spain); Neetya Shrestha (Telecom SudParis, France); Mehdi Mani (Institut TELECCOM, Telecom SudParis, France); Poompat Saengudomlert (Asian Institute of Technology, Thailand)
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Cloud-Hosted Key Sharing Towards Secure and Scalable Mobile Applications in Clouds
Piotr Tysowski (University of Waterloo, Canada); Anwar Hasan (University of Waterloo, Canada)
pp. 449-455

DAROS: Distributed User-Server Assignment And Replication For Online Social Networking Applications
Thuan Duong-Ba (Oregon State University, USA); Thinh Nguyen (Oregon State, USA); Duc A. Tran (University of Massachusetts Boston, USA)
pp. 456-460

Somersault Cloud: Toward a cloud-of-clouds Service for Personal Backup
Huajian Mao (National University of Defense and Technology, P.R. China); Nong Xiao (National University of Defense Technology, P.R. China); Lu Yutong (NUDT, P.R. China); Haifeng Xu (WuLuMuQi General Hospital of LanZhou Military Region, P.R. China)
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Profit Maximization and Power Management of Green Data Centers Supporting Multiple SLAs
Mahdi Ghamkhari (University of California at Riverside, USA); Hamed Mohsenian-Rad (University of California at Riverside, USA)
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SPC: Signal Processing for Communications

A Low Power 100 Gbps DP-QPSK Receiver Using Analog Domain Signal Processing
Nandakumar Nambath (Indian Institute of Technology, Bombay, India); Anita Gupta (Bhabha Atomic Research Centre, India); Shalabh Gupta (IIT Bombay, India)
pp. 470-473

Novel Fast MUSIC Algorithm for Spectral Estimation with High Subspace Dimension
Hongting Zhang (Louisiana State University, USA); Hsiao-Chun Wu (Louisiana State University, USA); Shih Yu Chang (National Tsing Hua University of Taiwan, Taiwan)
pp. 474-478

Clustered Linear Precoding for Downlink Network MIMO Systems With Partial CSI
Mehdi Sadeghzadeh (The University of Akron, USA); Hamid Reza Bahrami (The University of Akron, USA); Nghi H Tran (University of Akron, USA)
pp. 479-483

Reduced Complexity Super-Trellis Decoding for Convolutionally Encoded Transmission Over ISI-Channels
Fabian Schuh (Friedrich-Alexander-Univertsität Erlangen-Nürnberg, Germany); Andreas Schenk (University of Erlangen-Nuremberg, Germany); Johannes Huber (University of Erlangen-Nuremberg, Germany)
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Exact Trigonometric Superfast Inverse Covariance Representations
Ricardo Merched (Universidade Federal do Rio de Janeiro, Brazil)
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Performance-Complexity Trade-offs of the 2-D Iterative Feedback Signal Detection Algorithm
Yiming Chen (Western Digital Corporation, USA); Shayan Garani Srinivasa (Indian Institute of Science, India)
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WAHS I: Wireless Ad Hoc and Sensor Networks I

Channel Capacity Related Power Allocation for distributed Sensor Networks with Application in Object Classification
Gholamreza Alirezaei (RWTH Aachen University, Germany); Rudolf Mathar (RWTH Aachen University, Germany)
pp. 502-507

Ambiguity Resolution in RSS-Based Emitter Geolocation
Sichun Wang (Communications Research Centre, Industry Canada, Canada); Robert J. Inkol (Defence R&D Canada, Canada); Brad Jackson (Defence R&D Canada, Canada); Shanzeng Guo (Defence R&D Canada, Canada)
pp. 508-513

A Novel Socially-Aware Opportunistic Routing Algorithm in Mobile Social Networks
Gary K. W. Wong (The Hong Kong Institute of Education, Hong Kong); Xiaohua Jia (City University of Hong Kong, Hong Kong)
pp. 514-518

On the Optimal Transmission Distance for Power-aware Routing in Ad hoc Networks
Ahmed E.A.A. Abdulla (Tohoku University, Japan); Zubair Md. Fadlullah (Tohoku University, Japan); Hiroki Nishiyama (Tohoku University, Japan); Nei Kato (Tohoku University, Japan)
pp. 519-523

RFID Range Extension with Low-power Wireless Edge Devices
Li Chen (University of Rochester, USA); He Ba (University of Rochester, USA); Wendi Heinzelman (University of Rochester, USA); Andre Cote (Omni-ID Corporation, USA)
pp. 524-528

CTA: a Collaborative Tracking Algorithm in Wireless Sensor Networks
Ibtissem Boulanouar (LIGM - University Paris-Est, France); Stephane Lohier (University of Paris-Est, France); Abderrezak Rachedi (University Paris-Est Marne-la-Vallée, France); Gilles Roussel (Université Paris-Est, France)
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Plenary Talk: 1000x Capacity Gain by Small Cell Densification

Speaker: Mehmet Yavuz, Senior Director, Qualcomm, USA

Invited Position Talks I

Dealing with Exponential Growth in Wireless Video
Jerry D Gibson (University of California, Santa Barbara, USA)

PHY-APP Cross-Layer Wireless Video Transmission
Pamela Cosman (University of California, San Diego, USA)

Detection for Two-Dimensional Magnetic Recording Systems
Seyed Mehrdad Khatami (University of Arizona & Sharif University, USA); Bane Vasić (University of Arizona, USA)
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Invited Papers I

Testing Access Control and Obligation Policies
Dianxiang Xu (Dakota State University, USA); Michael Sanford (Dakota State University, USA); Zhaoliang Liu (Dakota State University, USA); Mark Emry (Sioux Falls School District, USA); Brad Brockmueller (Sioux Falls School District, USA); Spencer Johnson (Pomona College, USA); Michael To (Georgia State University, USA)
pp. 540-544

Traffic Classification: Issues and Challenges
Yibo Xue (Tsinghua university, P.R. China); Dawei Wang (National Computer Network Emergency Response Technical Team / Coordination Center of China, P.R. China); Luoshi Zhang (Harbin University of Science and Technology, P.R. China)
pp. 545-549

Channel Capacity and Soft-Decision Decoding of LDPC Codes for Spin-Torque Transfer Magnetic Random Access Memory (STT-MRAM)
Kui Cai (Data Storage Institute, Singapore); Zhiliang Qin (Data Storage Institute, Singapore); Bingjin Chen (Data Storage Institute, Singapore)
pp. 550-554

QoE Evaluations for Video Streaming over eMBMS
Utsaw Kumar (University of Notre Dame, USA); Ozgur Oyman (Intel Corporation, USA)
pp. 555-559

GCNC: Green Computing, Networking and Communications

Energy Saving Improvements in IP Networks Through Table Lookup Bypass in Router Line Cards
Angelo Coiro (University of Rome "La Sapienza", Italy); Marco Polverini (University "La Sapienza" Roma, Italy); Antonio Cianfrani (University of Roma "La Sapienza", Italy); Marco Listanti (University of Rome "La Sapienza", Italy)
pp. 560-566

A robust optimization approach for energy-aware routing in MPLS networks
Bernardetta Addis (Università degli Studi di Torino, Italy); Antonio Capone (Politecnico di Milano, Italy); Giuliana Carello (Politecnico di Milano, Italy); Luca Gianoli (Politecnico di Milano & École Polytechnique de Montréal, Italy); Brunilde Sansò (Ecole Polytechnique de Montreal, Canada)
pp. 567-572

Impact of Mobile Transmitter Sources on Radio Frequency Wireless Energy Harvesting
Antonio Hernandez Coarasa (Northeastern University, Spain); Prusayon Nintanavongsa (Northeastern University, USA); Sugata Sanyal (Tata Institute of Fundamental Research Mumbai, India); Kaushik Chowdhury (Northeastern University, USA)
pp. 573-577

Energy-efficient IPTV Simulcast over Fixed WiMAX Access Systems
Yi Zhu (Hawaii Pacific University, USA); Xiaofeng Gao (Shanghai Jiao Tong University, P.R. China); Weili Wu (UT Dallas, USA); Jason P. Jue (University of Texas at Dallas, USA)

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Energy Budget Simulation for Deep Packet Inspection
Lorenzo Di Gregorio (Intel Mobile Communications GmbH & Lantiq Deutschland GmbH, Germany)
pp. 585-589

Analysis of Energy Efficiency in Dynamic Optical Networks Employing Solar Energy Sources
Jiayuan Wang (Technical University of Denmark, Denmark); Anna Manolova Fagertun (Technical University of Denmark, Denmark); Sarah Ruepp (Technical University of Denmark, Denmark); Lars Dittmann (Technical University of Denmark, Denmark)
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WN I: Wireless Networks I

Towards 60GHz Wireless Switching Interconnect
Hars Vardhan (University of texas at Dallas, USA); Ravi Prakash (University of Texas at Dallas, USA)
pp. 594-598

Efficient Support for Video Communications in Wireless Home Networks
Andrea Vesco (Istituto Superiore Mario Boella, Italy); Enrico Masala (Politecnico di Torino, Italy); Riccardo M. Scopigno (Istituto Superiore Mario Boella, Italy)
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Study on Real Energy Consumption of Large-scale Campus Wireless Network
Wenqi Sun (Tsinghua University, P.R. China); Hewu Li (Tsinghua University, P.R. China); Jianping Wu (Tsinghua University, P.R. China)
pp. 605-609

Protocol Independent Multicast: from Wired to Wireless Networks
Alessandro Russo (University of Trento, Italy); Renato Lo Cigno (University of Trento, Italy); Izhak Rubin (University of California at Los Angeles, USA)
pp. 610-615

Novel DCF-based Multi-User MAC Protocol and Dynamic Resource Allocation for OFDMA WLAN Systems
Takuya Mishima (Osaka University, Japan); Shinichi Miyamoto (Osaka University, Japan); Seiichi Sampei (Osaka University, Japan); Wenjie Jiang (NTT Network Innovation Laboratories, NTT Corporation & Research Engineer, Japan)
pp. 616-620

Keynote Talk: Architecture for High Speed, Large Volume and Low Delay Data Transport Networks

Speaker: Vincent W. S. Chan, Joan and Irwin Jacobs Professor, MIT, USA

Qualcomm Distinguished Lecture V: Emerging topics in LTE-Advanced Networks

Speaker: Yongbin Wei, Director, Qualcomm, USA

CIS II: Communications and Information Security II

A Hierarchical PCA-based Anomaly Detection
Tian Biming (Curtin University, Australia); Kathryn E Merrick (University of New South Wales & Australian Defence Force Academy, Australia); Shui Yu (Deakin University, Australia); Jiankun Hu (University of New South Wales, Australia)
pp. 621-625

HIDEINSIDE - A Novel Randomized & Encrypted Antiforensic Information Hiding
Avinash Srinivasan (George Mason University, USA); Srinath Thirthahalli Nagaraj (George Mason University, USA); Angelos Stavrou (George Mason University, USA)

MCC: Multimedia Computing and Communications

WC II: Wireless Communications II

Plenary Talk: Evolution of Digital Video Compression - from Primordial Soup to Homo sapiens

Speaker: Ajay Luthra, Vice President, Motorola Mobility, USA

COG: Cognitive Computing and Networking

MCVC: Mobile Computing and Vehicle Communications

WAHS II: Wireless Ad Hoc and Sensor Networks II

A Realistic and Stable Markov-based Model for WSNs
Irfan S. Al-Anbagi (School of Electrical Engineering and Computer Science University of Ottawa, Canada); Mounib Khanafer (University of Ottawa, Canada); Hussein T Mouftah (University of Ottawa, Canada)
pp. 802-807

HarvWSNet: A Co-Simulation Framework for Energy Harvesting Wireless Sensor Networks
Amine Didioui (CEA/Leti - Minatec & University of Rennes 1, France); Carolynn Bernier (CEA/Leti - Minatec, France); Dominique Morche (CEA Leti, France); Olivier Sentieys (IRISA, University of Rennes 1, France)
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Plenary Talk: Understanding Behavior in a Networked World via Social Media Data

Speaker: Huan Liu, Professor, Arizona State University, USA

Invited Position Talks II

Ad-Hoc Networks at Global Scale
Rene L. Cruz (University of California, San Diego, USA)
pp. 813-817

Wireless Network Virtualization
Xin Wang (University of Pittsburgh, USA); David Tipper (University of Pittsburgh, USA)
pp. 818-824

Trends in Survivable/Secure Cognitive Networks
Erik Blasch (Air Force Research Lab, USA); Timothy Busch (Air Force Research Lab, USA); Sunil Kumar (San Diego State University, USA); Khanh D Pham (The U.S. Air Force Research Laboratory & Space Vehicles Directorate, USA)
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Invited Papers II

Storage codes - coding rate and repair locality
Henk D.L. Hollmann (Nanyang Technological University, Singapore)
pp. 830-834

Two Dimensional-IP Routing
Mingwei Xu (Tsinghua University, P.R. China); Shu Yang (University of Tsinghua, P.R. China); Dan Wang (The Hong Kong Polytechnic University, Hong Kong); Jianping Wu (Tsinghua University, P.R. China)
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Polar Codes for Data Storage Applications
Gabi Sarkis (McGill University, Canada); Warren Gross (McGill University, Canada)
pp. 840-844

Resilient and Efficient MANET Aerial Communications for Search and Rescue Applications
William H. Robinson (Vanderbilt University, USA); Adrian Lauf (University of Louisville, USA)
pp. 845-849

ISA: Internet Services and Applications

Storage Replication in Information-Centric Networking
Paris Flegkas (University of Thessaly, Greece); Vasilis Sourlas (University of Thessaly & CERTH-ITI, Greece); George Parisis (University of Cambridge, United Kingdom); Dirk Trossen (University of Cambridge, United Kingdom)

WN II: Wireless Networks II

Keynote Talk: Analytical and Experimental Methods for High-Performance Network Testing

Speaker: Nageswara S. V. Rao, Corporate Fellow, Oak Ridge National Laboratory

Qualcomm Distinguished Lecture VI: Characterizing and Leveraging People Movement in Mobile Networks

Speaker: Klara Nahrstedt, Professor, University of Illinois, Urbana-Champaign, USA

CQSM: Communication QoS and System Modeling

Caching for IPTV distribution with time-shift
Henrik Abrahamsson (SICS, Sweden); Mats Björkman (Malardalen University, Sweden)
pp. 916-921

Enhanced Measurement-Based Admission Control for Flow-Aware Networks
Robert Wójcik (AGH University of Science and Technology, Poland); Jerzy Domżał (AGH University of Science and Technology, Poland); Andrzej Jajszczyk (AGH University of Science and Technology, Poland)
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Monitoring VoIP Call Quality Using Improved Simplified E-model
Haytham Assem (NUI Maynooth, Ireland); David Malone (NUI Maynooth, Ireland); Jonathan Dunne (Systems and Performance Engineering, IBM Dublin, Software Lab, Ireland); Pat O'Sullivan (Systems and Performance Engineering, IBM Dublin, Software Lab, Ireland)
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Assessment of speech quality degradation indicators for "continuity" dimension in super wideband telephony context
Sibiri Tiemounou (Rennes 1 University & France Telecom, France); Régine Le Bouquin Jeannès (University of Rennes 1, France); Vincent Barriac (France Télécom, France)
pp. 932-936

Practical Multipath Load Balancing with QoS
Brad Smith (University of California, Santa Cruz, USA); Lincoln Thurlow (University of California Santa Cruz, USA)
pp. 937-943

A Deterministic Loss Model Based Analysis of CUBIC
Rodolfo Ignacio Ledesma Goyzueta (State University of New York - Binghamton, USA); Yu Chen (Binghamton University, USA)
pp. 944-949

DTSA: Data Storage Technology and Applications

Design of LDPC Coding Schemes for Exploitation of Bit Error Rate Diversity across Dies in NAND Flash Memory
Ravi Hiranand Motwani (Intel Corporation, USA); Chong Ong (Intel Corporation, USA)
pp. 950-954

Effective Cache Management and Performance Limits in Information-Centric Networks
Vasilis Sourlas (University of Thessaly & CERTH-ITI, Greece); Leandros Tassiulas (University of Thessaly, Greece)
pp. 955-960

Modulation Coding for Flash Memories
Yongjune Kim (Carnegie Mellon University, USA); Kyoung Lae Cho (Samsung Electronics, Korea); Hongrak Son (Samsung Electronics, Korea); Jaehong Kim (Samsung Electronics, Korea); Jun Jin Kong (Samsung Electronics Co., Ltd., Korea); Jaejin Lee (Soongsil University, Korea); B. V. K. Vijaya Kumar (Carnegie Mellon University, USA)
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WC III: Wireless Communications III

Plenary Talk: Vehicle Cloud Computing

Speaker: Mario Gerla, Professor, University of California, Los Angeles, USA

Invited Papers III

NAPE: Network Algorithm & Performance Evaluation

WNA: Wireless Networks Applications

Plenary Talk: Research and Challenges of Multimedia Data Management and Computing

Shu-Ching Chen, Professor, Florida International University, USA

Invited Position Talks III

Invited Papers IV

NRQS: Network Routing, QoS and Security

WN III: Wireless Networks III