

Message from the General Chair



It has been a great honor and privilege to serve as the General Chair of ICCCN 2011 at beautiful Maui, Hawaii. Since its inception in 1991, ICCCN has been very successful in bringing together a tremendous and rich diversity of researchers and speakers from academia and industry all over the world, to share ideas and latest research outcomes in a wide spectrum of communications and networking areas.

This year, the 20th anniversary year of ICCCN, witnesses the largest program in its history. The five-day program starts with 6 high-quality tutorials, sponsored by Qualcomm and freely open to all conference and workshop attendees, covering various cutting-edge technologies; it follows with 4 keynote talks and 3 Plenary panel discussions and many oral paper sessions; the workshop program contains 12 workshops running in parallel, covering an even wider scope that is complementary to the main program. In addition, a Best Paper Award will be given at the conference to the paper recommended by the Best Paper Selection Committee.

It is very encouraging that the response to the conference's call for papers has been outstanding, and we expect the attendance will be equally impressive. The success would not have been possible without the extensive contributions from our 1500+ volunteers. We would like to acknowledge the tremendous efforts of Jin Li (Microsoft, USA), the Vice General Chair, Xiaobo Zhou (UCCS, USA) and George Rouskas (NCSU, USA), the Technical Program Chairs, whose contribution and dedication to the conference are unparalleled. We thank Liqiang Zhang and Waltenege Dargie, the Workshop General Co-Chairs, Dilip Krishnaswamy and Andres Kwasinski, the Tutorial Co-Chairs, Ali Begen and Linda Xie, Student Travel Grant Co-Chairs, Kartik Gopalan, Publication Chair, and many other chairs and track chairs, along with our TPC members and reviewers, who have been working around the clock to make the whole process very smooth.

Special thanks to Keynote and Plenary Speakers, Drs. John M. Cioffi, Victor Bahl, Hari Balakrishnan, Gee-Kung Chang, C.-C. Jay Kuo, Baochun Li, Sajal K. Das, Krishna Kant, K. K. Ramakrishnan, Guoliang Xue, Tarek Abdelzaher, Edward Knightly, Ness Shroff and Jie Wu, for their insightful vision to be delivered to our attendees. We appreciate the generosity of sponsors: the IEEE, NSF, Microsoft and Qualcomm. We also thank Dr. E. K. Park, Chair of the ICCCN steering committee, for his constant support and guidance.

We hope all of you enjoy ICCCN 2011 and find this a productive opportunity to learn, exchange ideas, make new contacts and renew old ones. This will be a memorable experience you will never forget.

Aloha,

Haohong Wang, *TCL Corporation, USA*
ICCCN 2011 General Chair

Message from the Technical Program Chairs



Welcome to ICCCN 2011!

The ICCCN conference has established itself as a leading forum for the presentation of high-quality research in all aspects of computer communications and networking, and for fostering interaction and exchange of ideas.

ICCCN 2011 was fortunate to attract very high interest among the community, and the main conference received 452 submissions (a record!) from more than 45 countries in all five continents. These figures indicate that ICCCN conferences have become worldwide reference events in the field. The high number of submissions provided an excellent opportunity for a high-quality program, but also called for a demanding and laborious paper evaluation process. The 361 members of the Technical Program Committee worked efficiently and responsibly under tight time constraints to produce a total of 1330 reviews that provided the basis for the final paper selection.

As a result of this process, 134 regular papers and two invited papers were finally selected for presentation at the main conference, an acceptance rate of 29.6%. Given the large number of submitted manuscripts and the tight time and space constraints, many strong submissions could not be accepted. To allow the conference participants to benefit from further worthwhile and stimulating research results, 34 papers were accepted for presentation at the workshops co-located with the main conference.

The main program of ICCCN 2011 covers three days and includes streams of up to four parallel sessions. The program is further enriched by four keynote presentations offered by world-renowned researchers in the field, and three plenary panel presentations that address topics in Multimedia Networking, Next-Generation Networks, and Mobile and Wireless Networking. The main program is complemented by a diverse set of high-quality tutorials and workshops.

We are grateful to all authors who trusted us with their work; without them there would be no conference. The final result would not have been possible without the dedication and hard work of many colleagues. Special thanks are due to the track chairs, the members of the Technical Program Committee, and to all external referees for the quality and depth of the reviews, and their sense of responsibility and responsiveness under very tight deadlines.

George Rouskas and Xiaobo Zhou
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- Li, Yifan
- Li, Yingying
- Li, Yu
- Li, Zhaoquan
- Li, Zhuo
- Lin, Rui
- Litschke, Oliver
- Liu, Lanchao
- Liu, Xin
- Liu, Ying
- Liu, Zeyu
- Liu, Zhi
- Lo, Shou-Chih
- Lu, Hongsheng
- Luo, Zhifeng
- Ma, Jianguo
- Maheshwari, Supriya
- Malekmohamadi, Hossein
- Mao, Yuexin
- Mason, Sean
- Matsuda, Tetsushi
- Medjiah, Samir
- Meng, Jia
- Miller, Christopher
- Mitchell, David
- Mitra, Pramita
- Mohammed, Saif
- Mollanoori, Mohsen
- Mori, Tatsuya
- Mornard, Olivier
- Mostofi, Yasamin
- Nguyen, Nam
- Nguyen, Nam Tran
- Ni, Wei
- Nicolae, Bogdan
- Okuyama, Suguru
- Ortmanns, Maurits
- Paasch, Christoph
- Pandana, Charles
- Park, Pangun
- Penoff, Brad
- Petrescu, Teodor
- Qin, Hua
- Rashti, Mohammad
- Ricciardi, Sergio
- Riga, Niky
- Rong, Beiyu
- Rusek, Fredrik
- Sahlin, Henrik
- Schoenen, Rainer
- Schwarz, Stefan
- Senst, Martin
- Shang, Yunfei
- Shen, Haiying
- Shen, Meng
- Siegel, H. j.
- Song, Ju
- Song, Yuan
- Su, Wei
- Sun, Guanglu
- Sun, Peng
- Taha, Abd-Elhamid
- Tan, Wee Lum
- Tang, Jin
- Tanoli, Shujaat Ali Khan
- Thobaben, Ragnar
- Tian, Jie
- Tian, Xiaohua
- Traverso, Stefano
- Triay, Joan
- Tzortzakakis, Michail
- Uluagac, Arif
- Uricar, Tomas
- Vasic, Nedeljko
- Vehkaperä, Mikko
- Venkiah, Auguste
- Vishwanath, Arun
- von Wrycza, Peter
- Vorobyeva, Ekaterina
- Wang, Di
- Wang, Gang
- Wang, Jun
- Wang, Ruhai
- Wang, S.
- Wang, Wenwu
- Werthmann, Thomas
- Wischik, Damon
- Wu, Leijia
- Wu, Yi
- Wyrembelski, Rafael
- Xiao, Ming
- Xing, Lin
- Yadav, Nikhil
- Yan, Qiben
- Yan, Tan
- Yang, Hyun Jong
- Yang, Jin
- Yang, Yang
- Ye, Yinghua
- Yi, Jun
- Yuan, Zhou
- Zeng, Wei
- Zhai, Ennan
- Zhang, Jianshu
- Zhang, Liqiang
- Zhang, Rongqing
- Zhang, Yulong
- Zhang, Zhi
- Zheng, Guanbo
- Zheng, Rong
- Zhong, Lei
- Zhong, Lin
- Zhou, Pan
- Zhou, Yimin
- Zhu, Chunsheng

Program Overview

Sunday, July 31, 2011 – Workshops and Tutorials

Time	WAILUKU	KAHULUI	KIHEI	WAILEA	KAPALUA	NAPILI
07:00-17:00	Registration (Foyer/Maui Ball Room)					
09:00-10:15	NIME1: Keynote	WiMAN1: Keynote		MobiPST1: Keynote	1/2-Day Tutorial 1	1/2-Day Tutorial 2
10:15-10:45	Coffee Break					
10:45-12:15	NIME2	WiMAN2	WiMAN3	MobiPST2	1/2-Day Tutorial 1	1/2-Day Tutorial 2
12:15-13:30	Lunch					
13:30-15:30	NIME3	WiMAN4	WiMAN5	MobiPST3	1/4-Day Tutorial 1	1/4-Day Tutorial 2
15:30-16:00	Coffee Break					
16:00-18:00	NIME 4	WiMAN6	ETMEC	MobiPST4	1/4-Day Tutorial 3	1/4-Day Tutorial 4

Monday, August 1, 2011 – Main Conference

Time	WAILUKU	KAHULUI	KIHEI	WAILEA
07:00-17:00	Registration (Foyer/Maui Ball Room)			
08:30-8:50	Opening Remarks			
08:50-10:15	Keynote I – Speaker: Dr. Jon M. Cioffi, ASSIA Inc., USA (WAILUKU/KAHULUI)			
10:15-10:45	Coffee Break			
10:45-12:15	Packet Inspection and Intrusion Detection	OFDM	Coding Theory and Techniques	Energy Efficient Networking
12:15-13:30	Lunch			
13:30-15:00	Panel Discussion I: Multimedia Networking (WAILUKU/KAHULUI)			
15:00-15:15	Networking Break			
15:15-16:45	Wireless Mesh Networks	Modeling and Analysis	Dependable Internet Services	Learning and Control
16:45-17:00	Coffee Break			
17:00-18:30	Network Security I	Multiple Access	Communication Theory	Broadband Access
19:00	Conference Reception (ANUENUE Lawn)			

Tuesday, August 2, 2011 – Main Conference

Time	WAILUKU	KAHULUI	KIHEI	WAILEA
07:00-17:00	Registration (Foyer/Maui Ball Room)			
08:50-10:15	Keynote II -- Speaker: Dr. Victor Bahl, Microsoft Research (WAILUKU/KAHULUI)			
10:15-10:45	Coffee Break			
10:45-12:15	Networking in Ad-Hoc Networks	Data Collection, Aggregation, and Processing	Resource Management for Internet Applications	Reliability and Service Provisioning
12:15-13:30	Lunch			
13:30-15:00	Panel Discussion II: Next-Generation Networks (WAILUKU/KAHULUI)			
15:00-15:15	Networking Break			

15:15-16:45	Network Security II	Wireless Communications I	Video Coding and QoS	Dynamic and flexible optical network service provisioning
16:45-17:00	Coffee Break			
17:00-18:30	Mobile Ad-Hoc Networks	Localization and Navigation	P2P Systems I	Transport and Resource Allocation
19:00	Conference Banquet (OCEAN Lawn)			

Wednesday, August 3, 2011 – Main Conference

Time	WAILUKU	KAHULUI	KIHEI	WAILEA
07:00-17:00	Registration (Foyer/Maui Ball Room)			
08:50-10:15	Keynote III -- Speaker: Dr. Hari Balakrishnan, MIT, USA (WAILUKU/KAHULUI)			
10:15-10:45	Coffee Break			
10:45-12:15	Communications Security and Management	Wireless Communications II	Multimedia Networking	Optical networking solutions for emerging applications
12:15-13:30	Lunch			
13:30-15:00	Panel Discussion III: Mobile and Wireless Networking (WAILUKU/KAHULUI)			
15:00-15:15	Networking Break			
15:15-16:45	Biometric Security and Online Applications	Wireless Communication Challenges	P2P Systems II	Routing and Scheduling
16:45-17:00	Coffee Break			
17:00-18:30	Physical Layer Interactions in Wireless Networks	Cryptographic Algorithms and Security	Routing and Topology Discovery	
19:00	Workshop Reception (ANUENUE Lawn)			

Thursday, August 4, 2011 – Workshops

Time	WAILUKU	KAHULUI	KIHEI	WAILEA	KAPALUA	NAPILI
07:00-13:00	Registration (Foyer/Maui Ball Room)					
9:00-10:15	Keynote IV: Speaker: Dr. Gee-Kung Chang, Georgia Tech, USA (WAILUKU/KAHULUI)					
10:15-10:45	Coffee Break					
10:45-12:15	PMECT1	ContextQoS1	MCC1	CoHetNets1	GridPeer1	CRWC1
12:15-13:30	Lunch					
13:30-15:30	PMECT2	ContextQoS2	MCC2	CoHetNets2	GridPeer2	CRWC2
15:30-16:00	Coffee Break					
16:00-18:00	PMECT3	ContextQoS3		CoHetNets3	SIMNA	FlexBWAN

Technical Program

Sunday, July 31

09:00 – 12:15

Half-Day Tutorial 1

Room: KAPALUA

Thomas Magedanz and Julius Mueller (Technische Universität Berlin, Germany): “Packet Core Network Evolution in regard to Future Internet Research Trends”

Half-Day Tutorial 2

Room: NAPILI

Sudipa Sengupta (Microsoft Research, USA): “Cloud Data Center Networks: Scalability and Commoditization”

09:00 - 10:15

NIME 1: Keynote

Room: WAILUKU

Chair: Marco Reccetti (University of Bologna, Italy)

Terrence Masson (Northeastern University, USA): “Creative Industries – Revolution, Agility and Excellence”

WiMAN1 1: Keynote

Room: KAHULUI

Chair: Habib M. Ammari (Hofstra University, USA)

Alhussein A. Abouzeid (Rensselaer Polytechnic Institute, USA): “Protocols and Theories for Multi-Hop Wireless Networks”

MobiPST1: Keynote

Room: WAILEA

Chair: Kewei Sha (Oklahoma City University, USA)

Alfred Weaver (University of Virginia): TBA

10:45 - 12:15

NIME 2: Evaluation in Multimedia Entertainment Networks

Room: WAILUKU

Chair: Abdennour El Rhalibi (Liverpool John Moores University, United Kingdom)

A Simulative Evaluation of V2V Algorithms for Road Safety and In-Car Entertainment

Alessandro Amoroso (University of Bologna, Italy); Gustavo Marfia (Università di Bologna, Italy); Marco Roccetti

(University of Bologna, Italy); Claudio E. Palazzi (University of Padua, Italy)

Empirical Evaluation of the Efficiency of Spatial Subdivision Schemes and Load Balancing Strategies for Networked Games

Peter Quax (Hasselt University, Belgium); Jimmy Cleuren (Hasselt University, Belgium); Wouter Vanmontfort (Hasselt University, Belgium); Wim Lamotte (Hasselt University, Belgium)

Challenges for Selecting Optimal Coordinators in Peer-to-Peer-based Massively Multi-user Virtual Environments

Richard Süsselbeck (University of Mannheim, Germany); Florian Heger (University of Mannheim, Germany); Gregor A. Schiele (University of Mannheim, Germany); Christian Becker (Universität Mannheim, Germany)

Enhancing Enterprise Virtual Worlds with Real-World Event Information

Surjeet Mishra (Tata Consultancy Services, India); Vinay Khemka (TCS, India); Atul Agarwal (TCS, India); Geetika Sharma (TCS, India)

MobiPST2: Authentication, Cryptography and Key Management

Room: WAILEA

Chair: Zhengping Wu (University of Bridgeport, USA)

XTEA based Secure Authentication Protocol for RFID Systems

Gul N. Khan (Ryerson University, Canada); Jack Yu (Ryerson University, Canada); Fei Yuan (Ryerson University, Canada)

Secure Authentication Protocol for RFID Systems

Gul N. Khan (Ryerson University, Canada); Markus Moessner (Ryerson University, Canada)

Security Verification of Trust-based Authentication Handover in IP Networks

Saleh Al-shadly (Goettingen, Germany); Omar Alfandi (University of Goettingen, Germany); Henrik Brosenne (University of Goettingen, Germany)

New Card Based Scheme to Ensure Security and Trust in VANET

Irshad Sumra (Universiti Teknologi Petronas, Malaysia)

WiMAN2: Sensor Networks 1

Room: KAHULUI

Chair: Aaron D Striegel (University of Notre Dame, USA)
Aggregation-Friendly Data Collection Protocol of Wireless Sensor Networks for PoI Monitoring

Xiaobing Wu (Nanjing University, P.R. China); Shen Li (University of Illinois at Urbana-Champaign, USA); Guihai Chen (Nanjing University, P.R. China)

Reactive Virtual Position-Based Routing in Wireless Sensor Networks

Abdalkarim Awad (Ilmenau University of Technology, Germany); Andreas Mitschele-Thiel (Technische Universität Ilmenau, Germany); Falko Dressler (University of Innsbruck, Austria)

A QoS Enhanced Routing Protocol in Wireless Sensor Networks

Jing Feng (Southeast University, P.R. China); Zijun Liu (PLA University of Science and Technology, P.R. China); Xiaoxing Yu (University at Buffalo State University of New York, USA); Cuihan Wang (Southeast University, P.R. China)

Tier-Based Underwater Acoustic Routing for Applications with Reliability and Delay Constraints

Li-Chung Kuo (State University of New York at Buffalo, USA); Tommaso Melodia (State University of New York at Buffalo, USA)

WiMAN3: Wireless Networks 1

Room: KIHEI

Chair: Kiumi Akingbehin (University of Michigan-Dearborn, USA)

Understanding the Impact of Neighborhood Information on End-to-End Fairness in Multi-hop Wireless Networks

Jia Bai (Vanderbilt University, USA); Yuan Xue (Vanderbilt University, USA)

A Groupwise Universal Improvement Scheme for Location Estimation in Wireless Networks

Oleksandr Artemenko (University of applied sciences Erfurt, Germany); Gunar Schorcht (Erfurt University of Applied Sciences, Germany); Sebastian Mann (University of Applied Sciences Erfurt, Germany); Dominik Schulz (Ilmenau University of Technology, Germany); Mikhail Tarasov (Ilmenau University of Technology, Germany)

Timing Offsets-Resilient OFDMA for Asynchronous Wireless Ad Hoc Networks

Bong-seok Kim (Yeungnam University, Korea); Kwonhue Choi (Yeungnam University, Korea)

Exploring the benefits of symbiotic routing

Bora Karaoglu (University of Rochester, USA); Ilker Demirkol (Universitat Politecnica de Catalunya, Spain); Wendi Heinzelman (University of Rochester, USA)

Accurate Extraction of Face-to-Face Proximity Using Smartphones and Bluetooth

Shu Liu (University of Notre Dame, USA); Aaron D Striegel (University of Notre Dame, USA)

13:30 - 15:30

Quarter-Day Tutorial 1

Room: KAPALU

Xiaoming Fu (University of Göttingen, Germany): “Extensible IP Signaling: Architecture, Protocols and Practice”

Quarter-Day Tutorial 2

Room: NAPILI

Song Ci (University of Nebraska-Lincoln, USA): “User-Centric Cross-Layer Design for Multimedia Communications”

NIME 3: Applications for Multimedia Entertainment Networks

Room: WAILUKU

Chair: Claudio E. Palazzi (University of Padua, Italy)
Video games at the Library: An Historical Perspective
Gustavo Marfia (Università di Bologna, Italy); Alessandro Amoroso (University of Bologna, Italy); Marco Rocchetti (University of Bologna, Italy); Giulio Basile (University of Bologna, Italy); Claudio E. Palazzi (University of Padua, Italy)

Highly Realistic MPEG-4 Compliant Facial Animation with Charisma

Abdenmour El Rhalibi (Liverpool John Moores University, United Kingdom); Madjid Merabti (Liverpool John Moores University, United Kingdom)

iDTV-Web: an Extension API to Exploit TV interactivity for Accessing Dynamic Web Content

Nairon Viana (University of Minas Gerais, Brazil); Maria José Machado (Piauí State University, Brazil); Eucassio Lima (State University of Piauí - UESPI, Brazil)

A reflective framework for adapting video-on-demand over distributed environments

Daniel Oancea (INESC Porto, Portugal); Rui Silva Moreira (UFP, Portugal); João Lopes (Faculty of Engineering University of Porto, Portugal)

MobiPST3: Attacks, Detection and Prevention

Room: WAILEA

Chair: Zhengping Wu (University of Bridgeport, USA)

Bloom Filter Classifier For Deep Packet Inspection

Boyan Liu (Tsinghua University, P.R. China); Youjian Zhao (Tsinghua University, P.R. China)

Identifying Smartphone Malware Using Data Mining Technology

Hsiu-Sen Chiang (National Taichung Institute of Technology, Taiwan); Woei-Jiunn Tsaur (Da-Yeh University, Taiwan)

SIPp-DD: SIP DDoS Flood-Attack Simulation Tool

Jan Stanek (Charles University in Prague, Czech Republic); Lukas Kencl (Czech Technical University in Prague, Czech Republic)

Detecting Opportunistic Cheaters in Volunteer Computing

Matthäus Wander (University of Duisburg-Essen, Germany); Torben Weis (Universität Duisburg-Essen, Germany); Arno Wacker (University of Duisburg-Essen, Germany)

STEP: Source Traceability Elimination for Privacy against Global Attackers in Sensor Networks

Sejun Song (Texas A&M University, college station, USA); Hyungbae Park (University of Missouri-Kansas City, USA); Baek-Young Choi (University of Missouri, Kansas City, USA)

Knowledge-based Policy Conflict Analysis in Mobile Social Networks

Zhengping Wu (University of Bridgeport, USA); Yuanyao Liu (University of Bridgeport, USA)

WiMAN4: Sensor Networks 2

Room: KAHULUI

Chair: Yonghe Liu (UT Arlington, USA)

Determination of Communication Range for Range-free Multi-hop Localization in Wireless Sensor Networks

Sangho Lee (Gwangju Institute of Science and Technology, Korea)

Implementation of an Adaptive Intelligent Home Energy Management System using a Wireless Ad-hoc and Sensor Network in Pervasive Environments

Jinsung Byun (Chung-Ang University, Korea); Insung Hong (Chung-Ang University, Korea); Byeongkwan Kang (Chung-Ang University, Korea); Sehyun Park (Chung-Ang University, Korea)

A Context-Aware Approach for Enhanced Security and Privacy in RFID Electronic Toll Collection Systems

Di Ma (University of Michigan-Dearborn, USA); Anudath Prasad (University of Michigan-Dearborn, USA)

On the Scheduling for Convergecast in Power Controlled Wireless Sensor Networks

Hongsik Choi (Elizabeth City State University, USA); Seung Yang (Georgia Gwinnett College, USA); Yoon G Kim (Virginia State University, USA); Hankyu Joo (Hallym University, Korea)

WiMAN5: Wireless Networks 2

Room: KIHEI

Chair: Di Ma (University of Michigan-Dearborn, USA)

Development Framework for Prototyping Heterogeneous Multi-Radio Wireless Networks

Thorsten Horstmann (Fraunhofer FOKUS, Germany); Mathias Kretschmer (Fraunhofer FOKUS, Germany); Christian Niephaus (Fraunhofer FOKUS, Germany); Jens Mödeker (Fraunhofer FOKUS Institute, Germany); Stefan Sauer (Fraunhofer FOKUS, Germany)

Performance Management in Mixed Wireless Networks Using Multi Distortion Measures

Yacob Astatke (Morgan State University, USA); Yonas Woldearegay (Morgan State University, USA); Dean Richard (Morgan State University, USA); Abdoulaye Traore (Morgan State University, Canada)

Design and Analysis of a Mobile File Sharing System for Opportunistic Networks

Shanshan Lu (University of Texas at Arlington, USA); Yonghe Liu (UT Arlington, USA)

Context-Aware Mechanism for IEEE 802.21 Media Independent Handover

Miao Xiong (Department of Computing, The Hong Kong Polytechnic University, Hong Kong); Jiannong Cao (Hong Kong Polytechnic Univ, Hong Kong); Jun Zhang (The Hong Kong Polytechnic University, Hong Kong)

16:00 - 18:00

Quarter-Day Tutorial 3

Room: KAPALUA

Suleyman Uludag (University of Michigan, Flint, USA): “Information and Networking Infrastructure for the Smart Grid”

Quarter-Day Tutorial 4

Room: NAPILI

B. S. Manoj (University of California San Diego, USA): “Recent Advances in Wireless Mesh Networking”

ETMEC: Energy and Therman Management of Embedded Computing

Room: KIHEI

Chair: Qinru Qiu (Binghamton University, USA)

Temperature-aware Scheduling for Embedded Heterogeneous MPSoCs with Special Purpose IP Cores

Shervin Sharifi (University of California, San Diego, USA); Yen-Kuan Wu (University of California, San Diego, USA); Tajana Simunic Rosing (UCSD, USA)

Static Thermal Model Learning for High-Performance Multicore Servers

Francesco Beneventi (Università di Bologna, Italy); Andrea Bartolini (Università di Bologna, Italy); Luca Benini (University of Bologna, Italy)

Battery-aware Multimedia Coding Optimization by Dynamic Frequency Scaling

Jianxin Sun (University of Nebraska-Lincoln, USA); Xueyi Wang (University of Nebraska-Lincoln, USA)

An FPGA-based Distributed Computing System with Power and Thermal Management Capabilities

Hao Shen (Binghamton University, USA)

(Invited Talk) Exploiting Errors for Low Power On-Chip Memories

Luis Bathen (UC Irvine, USA); Nikil Dutt (University of California, Irvine, USA)

NIME 4: Technologies for Multimedia Entertainment Networksgo to top

Room: WAILUKU

Chair: Gustavo Marfia (Università di Bologna, Italy)

An Assessment of Technologies for In-Home Entertainment

S Srinivasan (Texas A & M International University, USA)

MDTN: Mobile Delay/Disruption Tolerant Network

Claudio E. Palazzi (University of Padua, Italy); Armir Bujari (University of Padua, Italy); Stefano Bonetta (University of Padua, Italy); Gustavo Marfia (Università di Bologna, Italy); Marco Rocchetti (University of Bologna, Italy); Alessandro Amoroso (University of Bologna, Italy)

On Method of Transmitting User Interaction Inputs in Wi-Fi Wireless Display

Lochan Verma (Samsung Electronics, Korea); Scott Seongwook Lee (DM R&D Center of Samsung Electronics, Korea)

Providing Support for Legacy IPv4 Applications in IPv6 Network with Network Aware Mobility

Markus Luoto (VTT Technical Research Centre of Finland, Finland); Teemu Rautio (VTT Technical Research Centre of Finland, Finland); Jukka Mäkelä (VTT Technical Research Centre of Finland, Finland)

Design and Implementation of Aggregation Framework for UPnP/DLNA Media Server

Seung Woo Kum (Korea Electronics Technology Institute, Korea); KyungWon Kim (Korea Electronics Technology Institute, Korea); Yun ju Lee (Korea Electronic Technology Institute, Korea); Tae-Beom Lim (KETI, Korea); Seok-pil Lee (Korean Electronics Technology Institute, Korea)

A Revenue Maximization Model for Call Admission Control Problem of Media on Demand Service Providers

Matin Bagherpour (Norwegian University of Science and Technology, Norway); Mehdi Sharif Yazdi (Chalmers University of Technology, Sweden); Oivind Kure (NTNU, Norway)

MobiPST4: Privacy, Security and Trust Protocols

Room: WAILEA

Chair: Kewei Sha (Oklahoma City University, USA)

Robust Wireless Sensor Network Featuring Automatic Function Alternation

Toshiaki Miyazaki (The University of Aizu, Japan); Daiki Shitara (The University of Aizu, Japan); Yuji Endo (The University of Aizu, Japan); Yuki Tanno (The University of Aizu, Japan); Hidenori Igari (The University of Aizu, Japan)

CapMan: Capability-based Defense against Multi-Path Denial of Service (DoS) Attacks in MANET

Quan Jia (George Mason University, USA); Kun Sun (George Mason University, USA); Angelos Stavrou (George Mason University, USA)

Securing Mobile Devices with Biotelemetry

Alfred C Weaver (University of Virginia, USA); Andrew Jurik (Johns Hopkins University Applied Physics Laboratory, USA)

On Secure Multi-copy based Routing in Delay Tolerant Networks

Eyuphan Bulut (Rensselaer Polytechnic Institute, USA); Boleslaw K Szymanski (Rensselaer Polytechnic Institute, USA)

HTTPI: An HTTP with Integrity

Taehwan Choi (University of Texas at Austin, USA); Mohamed Gouda (National Science Foundation, USA)

New Card Based Scheme to Ensure Security and Trust in VANET

Irshad Sumra (Universiti Teknologi Petronas, Malaysia)

Room: KAHULUI

Chair: Habib M. Ammari (Hofstra University, USA)

Self-Adaptive Routing for Temporary Information Sharing in Wireless Mesh Networks

Kei Ohnishi (Kyushu Institute of Technology, Japan); Takeshi Koga (Kyushu Institute of Technology, Japan); Kazuya Tsukamoto (Kyushu Institute of Technology, Japan); Yuji Oie (Kyushu Institute of Technology, Japan)

OpenFlow for Wireless Mesh Networks

Peter Dely (Karlstad University, Sweden); Andreas J. Kasser (Karlstad University, Sweden); Nico Bayer (Deutsche Telekom Laboratories, Germany)

Statistical Filtering Based Broadcast Protocol for Vehicular Networks

Jianjun Yang (University of Kentucky, USA); Zongming Fei (University of Kentucky, USA)

Optimization and Performance Analysis of the AEDB Broadcasting Algorithm

Patricia Ruiz (, Luxemburg); Bernabe Dorronsoro (University of Luxembourg, Luxemburg); Pascal Bouvry (University of Luxembourg, Luxemburg)

A Hybrid Adaptive Traffic Control Strategy in Wireless Mesh Networks

Pei-Jung Lin (Hungkuang University, Taiwan); Chyi-Ren Dow (Feng Chia University, Taiwan); Lu-Hui Huang (Chunghwa Telecom, Taiwan); S. f. Hwang (, Taiwan)

A Model of Path Stretch in Proactive Routing in MANETs

Stephan Bohacek (University of Delaware, USA); Andres Medina (University of Delaware, USA)

Layered Sequential Decision Policies for Cross-layer Design of Wireless Ad Hoc Networks

Zhenzhen Ye (iBasis, Inc., USA); Alhussein A. Abouzeid (Rensselaer Polytechnic Institute, USA)

WiMAN6: Ad-Hoc, Mesh and Vehicular Networks

Monday, August 1

8:30 - 10:15

Welcome and Keynote I

John M. Cioffi (ASSIA, Inc, USA): "Dynamic Spectrum Management"

Room: WAILUKU/KAHULUI

Chair: Jin Li (Microsoft Research, USA)

10:45 -- 12:15

Coding Theory and Techniques

Room: KIHEI

Chair: Annamalai Annamalai (Prairie View A&M University, USA)

Moment Analysis of Decision Variables for MAP Decoding
Aki Kaizu (Osaka City University, Japan); Yu Morishima (Osaka City University, Japan); Ikuo Oka (Osaka City University, Japan); Shingo Ata (Osaka City University, Japan)

Separation-based Joint Decoding in Compressive Sensing
Hsieh-Chung Chen (Harvard University, USA); Ht Kung (Harvard University, USA)

Relay-aided Broadcasting with Instantaneously Decodable Binary Network Codes

Lu Lu (Royal Institute of Technology, Sweden); Ming Xiao (Royal Institute of Technology, Sweden); Lars K. Rasmussen (Royal Institute of Technology, Sweden)

Blind identification of convolutional encoder parameters over $GF(2^m)$ in the noiseless case

Yasmine Zrelli (University of Brest, France); Mélanie Marazin (Université de Brest, France); Roland Gautier (University of Brest, France); Eric Rannou (University of Brest, France)

Energy Efficient Networking

Room: WAILEA

Chair: Shan Lin (Temple Univ, USA)

Distributed and Adaptive Interface Switch Off For Internet Energy Saving

Angelo Coiro (University of Rome "La Sapienza", Italy); Flavio Iervini (University of Rome "La Sapienza", Italy); Marco Listanti (University of Rome "La Sapienza", Italy)

Power-Efficient Lightpath-Based Grooming Strategies in WDM Mesh Networks

Farid Farahmand (Sonoma State University, USA); Mohammad Masud Hasan (Elizabeth City State University, USA); Isabella Cerutti (Scuola Superiore Sant'Anna, Italy); Jason P. Jue (University of Texas at Dallas, USA); Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal)

An Energy Efficient Link Layer Protocol For Power-Constrained Wireless Networks

Sohraab Soltani (University of Texas at Tyler, USA); Muhammad Usman Ilyas (Michigan State University, USA); Hayder Radha (Michigan State University, USA)

Energy Efficiency and Goodput Analysis in Two-Way Wireless Relay Networks

Qing Chen (University of Nebraska-Lincoln, USA); M. Cenk Gursoy (University of Nebraska-Lincoln, USA)

Packet Inspection and Intrusion Detection

Room: WAILUKU

Chair: Roland Bless (Karlsruhe Institute of Technology (KIT), Germany)

Hierarchical NFA-Based Pattern Matching for Deep Packet Inspection

Yan Sun (Washington State University, USA); Victor C. Valgenti (Washington State University, USA); Min Sik Kim (Washington State University, USA)

Another CDF based Multiple Pattern Matching Algorithm and Architecture for Packet Inspection

Tian Song (Beijing Institute of Technology, P.R. China); Dongsheng Wang (Tsinghua University, P.R. China)

Towards Optimal Monitoring in Cooperative IDS for Resource Constrained Wireless Networks

Amin Hassanzadeh (Texas A&M University, USA); Radu Stoleru (Texas A&M University, USA)

Adaptive Load Balancing for Parallel IDS on Multi-Core Systems using Prioritized Flows

Tobias Limmer (University of Erlangen, Germany); Falko Dressler (University of Innsbruck, Austria)

OFDM

Room: KAHULUI

Chair: Satya R Mohanty (Cisco Systems, USA)

Efficient Channel Estimation for OFDM and SC-FDE Schemes

Fábio Coelho (Universidade Nova de Lisboa, Portugal); Rui Dinis (Instituto de Telecomunicações/UNINOVA/FCT-UNL, Portugal); Paulo Montezuma (FCT-UNL, Portugal)

Adaptive Block-Level Resource Allocation in OFDMA Networks

Jiancun Fan (Xi'an Jiaotong University, P.R. China); Qinye Yin (Xi'an jiaotong university, P.R. China); Geoffrey Li (Georgia Tech, USA); Bingguang (Huawei Shanghai Research Institute, P.R. China); Xiaolong Zhu (Huawei Shanghai Research Institute, P.R. China)

Dynamic Soft Frequency Reuse with Inter-Cell Coordination in OFDMA Networks

Deli Jia (University of Electronic Science and Technology of China, P.R. China); Gang Wu (University of Electronic Science and Technology of China, P.R. China); Shaoqian Li (University of Electronic Science and Technology of China, Taiwan); Geoffrey Li (Georgia Tech, USA); Xiaolong Zhu (Huawei Shanghai Research Institute, P.R. China)

Modified Decision Feedback Channel Estimation Method for Mobile OFDM Systems

Dah-Chung Chang (National Central University, Taiwan); Sk Wang (NCU, Taiwan)

13:30 -- 15:00

Panel Discussion I: Multimedia Networking

Panelists: C.C. Jay Kuo (University of Southern California, USA), Baochun Li (University of Toronto, Canada), Sajal K. Das (University of Texas at Arlington, USA)

Room: WAILUKU/KAHULUI

15:15 -- 16:45

Dependable Internet Services

Room: KIHEI

Chair: Haiying Shen (Clemson University, USA)

Authenticated Setup of Virtual Links with Quality-of-Service Guarantees

Roland Bless (Karlsruhe Institute of Technology (KIT), Germany); Martin Röhrich (Karlsruhe Institute of Technology (KIT), Germany); Christoph Werle (Karlsruhe Institute of Technology (KIT), Germany)

Quantifying and Improving DNSSEC Availability

Casey T. Deccio (Sandia National Laboratories, USA); Jeff Sedayao (Intel Corporation, USA); Krishna Kant (National Science Foundation, USA); Prasant Mohapatra (University of California, Davis, USA)

Restoring End-to-End Resilience in the Presence of Middleboxes

Eric Brown (Virginia Tech, USA); Mark K. Gardner (Virginia Tech, USA); Umar Kalim (Virginia Tech, USA); Wu-chun Feng (Virginia Tech, USA)

Approximating the Number of Active Nodes Behind a NAT Device

Ali Tekeoglu (University of Texas at San Antonio, USA); Nihat Altiparmak (University of Texas at San Antonio, USA); Ali Saman Tosun (University of Texas at San Antonio, USA)

Learning and Control

Room: WAILEA

Chair: Radu Stoleru (Texas A&M University, USA)

Ensemble of Bayesian Predictors and Decision Trees for Proactive Failure Management in Cloud Computing

Song Fu (University of North Texas, USA); Qiang Guan (University of North Texas, USA); Ziming Zhang (University of North Texas, USA)

Caching "popular" BGP prefixes with grey modeling prediction

Wei Zhang (Tsinghua University, P.R. China); Jun Bi (Tsinghua University, P.R. China); Jianping Wu (Tsinghua University, P.R. China); Baobao Zhang (Beijing Jiaotong University, P.R. China)

A Dynamic Sampling Algorithm for Redundant Content Detection

Emir Halepovic (University of Calgary, Canada); Carey Williamson (University of Calgary, Canada); Majid Ghaderi (University of Calgary, Canada)

A Machine Learning Approach to End-to-End RTT Estimation and its Application to TCP

Bruno Astuto Arouche Nunes (University of California Santa Cruz (UCSC), Brazil); Kerry Veenstra (University of California Santa Cruz, USA); William Ballenthin (Columbia University, USA); Stephanie Lukin (Loyola University Maryland, USA); Katia Obraczka (University of California, Santa Cruz, USA)

Modeling and Analysis

Room: KAHULUI

Chair: Habib M. Ammari (Hofstra University, USA)

Data Loss Modeling and Analysis in Partially-Covered Delay-Tolerant Networks

Kyle Bradford (Oregon State University, USA); Brugger (Oregon State University, USA); Samina Ehsan (Oregon State University, USA); Bechir Hamdaoui (Oregon State University, USA); Yevgeniy Kovchegov (Oregon State University, USA)

Backpacking: Deployment of Heterogeneous Radios in High Data Rate Sensor Networks

A. B. M. Alim Al Islam (Purdue University, USA); Mohammad S Hossain (Purdue University, USA); Vijay Raghunathan (Purdue University, USA); Y. Charlie Hu (Purdue University, USA)

Markov Modeling of Fault-Tolerant Wireless Sensor Networks

Arslan Munir (University of Florida, USA); Ann Gordon-Ross (University of Florida, USA)

DynamicSD: Discover Dynamic and Uncertain Services in Pervasive Computing Environments

Feng Zhu (University of Alabama in Huntsville, USA); Ajinkya Kulkarni (University of Alabama in Huntsville, USA)

Wireless Mesh Networks

Room: WAILUKU

Chair: Fan Wu (Shanghai Jiao Tong University, P.R. China)

Low-Coupling Cluster-based Multipath Routing for Wireless Mesh Networks

Cristina Fonseca (INESC-ID/IST, Portugal); Jose Mocito (Inesc-ID / FCUL, Portugal); Luis Rodrigues (Inesc-ID/IST, Portugal)

Joint Routing and Stream Control Scheduling in MIMO-Based WMNs

Matadeen Bansal (ABV-Indian Institute of Information Technology and Management, Gwalior, India); Aditya Trivedi (ABV-Indian Institute of Information Technology and Management Gwalior, India)

Identifying Pollution Attackers in Network-Coding Enabled Wireless Mesh Networks

Yongkun Li (The Chinese University of Hong Kong, Hong Kong); John Chi Shing Lui (Chinese University of Hong Kong, Hong Kong)

TMAC: Timestamp-ordered MAC for CSMA/CA Wireless Mesh Networks

Faisal Nawab (King Abdullah University of Science and Technology, Saudi Arabia); Kamran Jamshaid (KAUST, Canada); Basem Shihada (KAUST, Canada); Pin-Han Ho (University of Waterloo, Canada)

17:00-18:30

Broadband Access

Room: WAILEA

Chair: Farid Farahmand (Sonoma State University, USA)

Location and Allocation of Switching Equipment (Splitters/AWGs) in a WDM PON Network

Brigitte Jaumard (Concordia University, Canada); Rejaul Chowdhury (Concordia University, Canada)

System-Level Evaluation of Opportunistic Client Cooperation in Wireless Cellular Networks

Alexander Pyattaev (Tampere University of Technology, Finland); Sergey Andreev (Tampere University of Technology, Finland); Olga Galinina (Tampere University of Technology, Finland); Yevgeni Koucheryavy (Tampere University of Technology, Finland)

End-to-End Performance of Heterogeneous Multi-EPON/OBS Networks

Maurizio Casoni (University of Modena and Reggio Emilia, Italy); Walter Cerroni (University of Bologna, Italy)

AWG-based Shuffle-Exchange Optical-Interconnection Architectures

Guido Maier (Politecnico di Milano, Italy); Paolo Valzasina (Alcatel-Lucent, Italy); Achille Pattavina (Politecnico di Milano, Italy)

Communication Theory

Room: KIHEI

Chair: Ikuo Oka (Osaka City University, Japan)

On Capacity Scaling Law of Cognitive Radio Ad Hoc Networks (Invited Paper)

Yi Shi (Virginia Tech, USA); Canming Jiang (Virginia Tech, USA); Thomas Hou (Virginia Tech, USA); Sastry Kompella (Naval Research Laboratory, USA)

ASER Analysis of Cooperative Non-Regenerative Relay Systems over Generalized Fading Channels

Oluwatobi O Olabiyi (Prairie View A&M University, USA); Annamalai Annamalai (Prairie View A&M University, USA)

Game Theoretic Power Control under Rician Slow Flat Fading Channels in Cognitive Radios Networks

Mahmoud A. Alayesh (University of New Mexico, USA); Nasir Ghani (University of New Mexico, USA)

Network Security I

Room: WAILUKU

Chair: Haodong Wang (Cleveland State University, USA)

Fine-grained DDoS Detection Scheme Based on Bidirectional Count Sketch

Haiqin Liu (Washington State University, USA); Yan Sun (Washington State University, USA); Min Sik Kim (Washington State University, USA)

Characterizing Transition Behaviors in Internet Attack Sequences

Haitao Du (Rochester Institute of Technology, USA); Shanchieh Jay Yang (Rochester Institute of Technology, USA)

Rule-based Verification of Network Protocol Implementations using Symbolic Execution

JaeSeung Song (Imperial College London, United Kingdom); Tiejun Ma (Imperial College, United Kingdom); Cristian Cadar (Imperial College London United Kingdom, United Kingdom); Peter Pietzuch (Imperial College London, United Kingdom)

Attacks on Network Infrastructure

Danai Chasaki (University of Massachusetts, USA); Qiang Wu (Juniper Networks, USA); Tilman Wolf (University of Massachusetts, USA)

Multiple Access

Room: KAHULUI

Chair: Lars K. Rasmussen (Royal Institute of Technology & University of South Australia, Sweden)

Performance of Hybrid ARQ for Network Diversity Multiple Access Schemes

Francisco Ganhão (Universidade Nova de Lisboa, Portugal); Miguel Pereira (Universidade Nova de Lisboa, Portugal); Luis Bernardo (Universidade Nova de Lisboa, Portugal); Rui Dinis (Instituto de Telecomunicações/UNINOVA/FCT-UNL, Portugal); Rodolfo Oliveira (Universidade Nova de Lisboa/Uninova, Portugal); Paulo F Pinto (Universidade Nova de Lisboa, Portugal)

Multiple Access Performance for Repeated-permutation MPPM with Interference Avoidance

Tatsuya Muramatsu (Yokohama National University, Japan); Fumie Ono (Yokohama National University, Japan); Toshiki Kato (Yokohama National University, Japan); Hiromasa Habuchi (Ibaraki University, Japan)

Minimizing Broadcast Delay in Location-Based Channel Access Protocols

Shan-Hung Wu (National Tsing Hua University, Taiwan); Chung-Min M Chen (Telcordia, USA)

Low Overhead Dynamic Spectrum Reallocation in Opportunistic Spectrum Access Networks

Yu Tian (Nanjing University, P.R. China); Wenzhong Li (Nanjing University, P.R. China); Zhuo Li (Nanjing University, P.R. China); Sanglu Lu (Nanjing University, P.R. China); Xiaoming Fu (University of Goettingen, Germany)

Tuesday, August 2

8:50 - 10:15

Keynote II

Victor Bahl (Microsoft Research, USA): "Putting the Cloud in the Palm of your Hand"

Room: WAILUKU/KAHULUI

Chair: Xiaobo Zhou (University of Colorado at Colorado Springs, USA)

10:45 -- 12:15

Resource Management for Internet Applications

Room: KIHEI

Chair: Brigitte Jaumard (Concordia University, Canada)

Harmony: Integrated Resource and Reputation Management for Large-Scale Distributed Systems

Haiying Shen (Clemson University, USA); Guoxin Liu (Clemson University, USA)

Optimal Client-Server Assignment for Internet Distributed Systems

Hiroshi Nishida (Oregon State University, USA); Thinkh Nguyen (Oregon State, USA)

Improving Network Services Configuration Management

Khalid Elbadawi (Depaul University, USA); James Yu (Depaul University, USA)

Where Do You "Tube"? Uncovering YouTube Server Selection Strategy

Vijay Adhikari (University of Minnesota, USA); Sourabh Jain (University of Minnesota, Twin cities, USA); Zhi-Li Zhang (University of Minnesota, USA)

Reliability and Service Provisioning

Room: WAILEA

Chair: Maurizio Casoni (University of Modena and Reggio Emilia, Italy)

NETbalance: Reducing the Runtime of Network Emulation using Live Migration

Andreas Grau (University of Stuttgart, Germany); Klaus Herrmann (University of Stuttgart, Germany); Kurt Rothe (University of Stuttgart, Germany)

Survivable Network Design Models based on Pre-Cross-Connected Trails

Mohammad Seyed Kiaei (Concordia University, Canada); Samir Sebbah (Concordia University, Canada); Anton Cerny (Kuwait University, Kuwait); Hamed M. K. Alazemi (Kuwait University, Kuwait); Chadi Assi (Concordia University, Canada)

Analyzing Flow Isolation in Shared Resource Systems

Jack Brassil (HP Laboratories, USA)

Modeling Stochastic Correlated Failures and their Effects on Network Reliability

Mahshid Rahnamay-Naeini (University of New Mexico, USA); Jorge Edgardo Pezoa (University of New Mexico,

USA); Ghady Azar (American University of Beirut, Lebanon); Nasir Ghani (University of New Mexico, USA); Majeed M Hayat (ECE Department, University of New Mexico, USA)

Data Collection, Aggregation, and Processing

Room: KAHULUI

Chair: Chair: Marc Mosko (PARC, USA)

Data Aggregation Protocol for Multiple Sound Sources Acquisition with Microphone Array Network

Shintaro Izumi (Kobe University, Japan); Hiroki Noguchi (Kobe University, Japan); Tomoya Takagi (Kobe University, Japan); Koji Kugata (Kobe University, Japan); Shimpei Soda (Kobe University, Japan); Masahiko Yoshimoto (Kobe University, Japan); Hiroshi Kawaguchi (Kobe University, Japan)

CID3: System Support for Loosely-coupled Personal Computing Environments

Mohammad Al-Mutawa (University of Colorado, USA);

Shivakant Mishra (University of Colorado, USA)

Fast, Scalable, Model-free Trajectory Optimization for Wireless Data Ferries

Benjamin Pearre (University of Colorado, Boulder, USA);

Timothy Brown (University of Colorado, USA)

Interleaving Wavelet Coefficients for Adaptive Data Transmission from Pervasive Sensing Systems

Anand Panangadan (Childrens Hospital Los Angeles, USA); Ashit Talukder (Jet Propulsion Laboratory, NASA, Pasadena, California, USA)

Networking in Ad-Hoc Networks

Room: WAILUKU

Chair: Falko Dressler (University of Innsbruck, Austria)

FailDetect: Gossip-based Failure Estimator for Large-Scale Dynamic Networks

Andrei Pruteanu (Delft University of Technology, The Netherlands); Venkat Iyer (Delft University of Technology, The Netherlands); Stefan Dulman (Delft University of Technology, The Netherlands)

Optimal Backbone Generation for Robotic Relay Networks

Ying Zhang (Palo Alto Research Center, USA); Mark Quilling (LMSSC, USA)

Stability and Scalability Properties for Dynamic Content Updates Over Delay Tolerant Networks

Yong Li (Tsinghua University, P.R. China); Depeng Jin (Tsinghua University, P.R. China); Li Su (Tsinghua University, P.R. China); Lieguang Zeng (Tsinghua University, P.R. China)

Social Forwarding in Large Scale Networks: Insights Based on Real Trace Analysis

Abderrahmen Mtibaa (Carnegie Mellon University, USA);

Khaled A. Harras (Carnegie Mellon University, USA)

Panel Discussion II: Next-Generation Networks

Panelists: Krishna Kant (George Mason University/NSF, USA), K.K. Ramakrishnan (AT&T Labs Research, USA), Guoliang (Larry) Xue (Arizona State University, USA)

Room: WAILUKU/KAHULUI

15:15 -- 16:45

Dynamic and Flexible Optical Network Service Provisioning

Room: WAILEA

Chair: Guido Maier (Politecnico di Milano, Italy)

Cost and Reliability Considerations in Designing the Next-Generation IP over WDM Backbone Networks (Invited Paper)

Byrav Ramamurthy (University of Nebraska-Lincoln, USA); K. K. Ramakrishnan (AT&T Labs - Research, USA); Rakesh Kumar Sinha (AT&T Research, USA)

Wavelength Retuning in Optical Waveband Switching Networks

Yang Wang (Georgia State University, USA); Xiaojun Cao (Georgia State University, USA)

Dynamic Non-Continuous Advance Reservation over Wavelength-Routed Networks

Neal Charbonneau (The MITRE Corporation, USA); Vinod M. Vokkarane (University of Massachusetts Dartmouth, USA)

Video Coding and QoS

Room: KIHEI

Chair: Tetsuya Yokotani (Mitsubishi Electric Corp., Japan)

Delay Constrained Throughput Analysis of a Correlated MIMO Wireless Channel

Kashif Mahmood (Norwegian University Of Science and Technology, Norway); Mikko Vehkaperä (Royal Institute of Technology (KTH), Sweden); Yuming Jiang (Norwegian University of Science and Technology (NTNU), Norway)

Profile-based Adaptive DiffServ Policing with Learning Techniques

Laercio Cruvinel (INESC-ID/Instituto Superior Técnico, Portugal); Teresa Vazao (Inesc-ID/Instituto Superior Técnico, Portugal)

A Content-Adaptive Distortion-Quantization Model for Intra Coding in H.264/AVC

Po-Chyi Su (National Central University, Taiwan)

Sum-Product Based Optimization for Scalable Video Streams in Peer-to-peer Mesh Network

Tareq Hossain (Vanderbilt University, USA); Yi Cui (Vanderbilt University, USA)

Room: WAILUKU

Chair: Shanchieh Jay Yang (Rochester Institute of Technology, USA)

SAVT: A Practical Scheme for Source Address Validation and Traceback in Campus Network

Guangwu Hu (Tsinghua University, P.R. China); Jianping Wu (Tsinghua University, P.R. China); Ke Xu (Tsinghua University, P.R. China); Wenlong Chen (University of Science and Technology Beijing, P.R. China)

Community-Centric Approaches for Confidentiality Management in Online Systems

Amin Ranj Bar (McGill University, Canada); Muthucumaru Maheswaran (McGill University, Canada)

USOR: An Unobservable Secure On-Demand Routing Protocol for Ad hoc Networks

Zhiguo Wan (Tsinghua University, P.R. China); Ming Gu (Tsinghua University, P.R. China)

A Picture is Worth a Thousand Words: Improving Usability and Robustness of Online Recommendation Systems

Tiffany Hyun-Jin Kim (Carnegie Mellon University, USA); Virgil Gligor (Carnegie Mellon University, USA); Adrian Perrig (Carnegie Mellon University, USA)

Wireless Communications I

Room: KAHULUI

Chair: Edward Coyle (Georgia Institute of Technology, USA)

On Link Layer Prioritization for Wireless Communication

Sohraab Soltani (University of Texas at Tyler, USA); Kiran M. Misra (Sharp Laboratories of America Inc., USA); Hayder Radha (Michigan State University, USA)

Improvement of Throughput under Capture Effect and Hidden terminal Problems

Takefumi Hiraguri (Nippon Institute of Technology, Japan); Toshiyuki Ogawa (Nippon Institute of Technology, Japan); Takahiro Ueno (Nippon Institute of Technology, Japan); Kentaro Nishimori (Niigata University, Japan); Kenya Jin'no (Nippon Institute of Technology, Japan)

MCS Selection for Throughput Improvement in Downlink LTE Systems

Jiancun Fan (Xi'an Jiaotong University, P.R. China); Qinye Yin (Xi'an jiaotong university, P.R. China); Geoffrey Li (Georgia Tech, USA); Bingguang (Huawei Shanghai Research Institute, P.R. China); Xiaolong Zhu (Huawei Shanghai Rearch Institute, P.R. China)

Noncooperative Distributed Wireless Relay Networks under Channel Uncertainty and Power Constraint

Kanghee Lee (Wichita State University, USA); Hyuck Kwon (Wichita State University, USA); Zuojun Wang (Wichita State University, USA)

17:00 – 18:30

Transport and Resource Allocation

Room: WAILEA

Chair: Ibrahim Matta (Boston University, USA)

Power Control for AP-Based Wireless Networks under the SINR Interference Model: Complexity and Efficient Algorithm Development

Shuang Li (The Ohio State University, USA); Eylem Ekici (The Ohio State University, USA); Ness B. Shroff (The Ohio State University, USA)

A Study of the Impact of Network Traffic Pacing from Network and End-User Perspectives

Yan Cai (University of Massachusetts Amherst, USA); Y. Sinan Hanay (University of Massachusetts, USA); Tilman Wolf (University of Massachusetts, USA)

Achieving the Maximum P2P Streaming Rate Using a Small Number of Trees

Joochwan Kim (University of Illinois at Urbana Champaign, USA); R. Srikant (University of Illinois at Urbana-Champaign, USA)

Ring Optimal Assignment of Slot Reservations for Cyclic TDMA Protocols

Marc Mosko (PARC, USA); Ignacio Solis (PARC, USA); Jj Garcia-Luna-Aceves (University of California at Santa Cruz, USA)

P2P Systems I

Room: KIHEI

Chair: Krishna Kant (National Science Foundation & Intel Research, USA)

Improving Sustainability of Private P2P Communities

Xiaowei Chen (Hong Kong Baptist University, Hong Kong); Xiaowen Chu (Hong Kong Baptist University, Hong Kong); Zongpeng Li (University of Calgary, Canada)

Refining Reputation to Truly Select High-QoS Servers in Peer-to-Peer Networks

Haiying Shen (Clemson University, USA); Lianyu Zhao (Clemson University, USA)

Providing NPR-Style Time-Shifted Streaming in P2P Systems

Zhipeng Ouyang (UNL, USA); Lisong Xu (University of Nebraska-Lincoln, USA); Byrav Ramamurthy (University of Nebraska-Lincoln, USA)

Making P2P Downloading Dependable by Exploiting Social Networks

Yingwu Zhu (Seattle University, USA)

Localization and Navigation

Room: KAHULUI

Chair: Ying Zhang (Palo Alto Research Center, USA)

Distributed Mass-Spring-Relaxation for Anchor-free Self-localization in Sensor and Actor Networks

Juergen Eckert (University of Erlangen, Germany); Félix J. Villanueva (University of Castilla-La Mancha, Spain); Reinhard German (Universitaet Erlangen-Nuernberg, Germany); Falko Dressler (University of Innsbruck, Austria)

SOS: A Safe, Ordered, and Speedy Emergency Navigation Algorithm in Wireless Sensor Networks

Andong Zhan (Nanjing University, P.R. China); Guihai Chen (Nanjing University, P.R. China); Fan Wu (Shanghai Jiao Tong University, P.R. China)

Short Range Frequency Scanning Estimation for Localisation in Cognitive Radio Environment

Kamaludin Mohamad Yusof (University of Essex, United Kingdom); John Woods (University of Essex, United Kingdom); Steve Fitz (University of Essex, United Kingdom)

Mobile Ad-Hoc Networks

Room: WAILUKU

Chair: Sohraab Soltani (University of Texas at Tyler, USA)

Towards Accountable Mobility Model: A Language Approach on User Behavior Modeling in Office WiFi Networks

Jiang Zhu (Carnegie Mellon University, USA); Ying Zhang (Carnegie Mellon Silicon Valley, USA)

Exploiting Mobility for Trust Propagation in Mobile Ad Hoc Networks

Ningning Cheng (University of California, Davis, USA); Kannan Govindan (University of California Davis, USA); Prasant Mohapatra (University of California, Davis, USA)

Mobi-Sync: Configurable Time Synchronization for Mobile Multihop Networks

Jun Yi (University of Notre Dame, USA); Christian Poellabauer (University of Notre Dame, USA); Liqiang Zhang (Indiana University South Bend, USA)

Achieving High Throughput Ground-to-UAV Transport via Parallel Links

Chit-Kwan Lin (Harvard University, USA); Ht Kung (Harvard University, USA); Tsung-Han Lin (Harvard University, USA); Stephen J Tarsa (Harvard University, USA); Dario Vlah (Harvard University, USA)

Wednesday, August 3

8:50 - 10:15

Keynote III

Hari Balakrishnana (MIT, USA): “Sense and Sensibility for Mobile Networks”

Room: WAILUKU/KAHULUI

Chair: George N. Rouskas (North Carolina State University, USA)

10:45-12:15

Multimedia Networking

Room: KIHEI

Chair: Michael P McGarry (University of Texas at El Paso, USA)

Cross-layer Assisted Network Interface Selection for Multi-interface Video Streaming

Tiia Sutinen (VTT Technical Research Centre of Finland, Finland); Helena Rivas (VTT Technical Research Centre of Finland, Finland)

A Semi-Distributed Fast Channel Change Framework for IPTV Networks

Aytac Azgin (Georgia Institute of Technology, USA); Yucel Altunbasak (Georgia Institute of Technology, USA)

Parallel Adaptive HTTP Media Streaming

Chenghao Liu (Tampere University of Technology, Finland); Imed Bouazizi (Nokia Research Center, Finland); Moncef Gabbouj (Tampere University of Technology, Finland)

Network Assisted Media Streaming in Multi-hop Wireless Networks

Yingnan Zhu (Samsung Information System America, USA); Hang Liu (Thomson, USA); Yang Guo (Bell Labs, Alcatel-Lucent, USA); Wenjun Zeng (University of Missouri, Columbia, USA)

Optical Networking Solutions for Emerging Applications

Room: WAILEA

Chair: Zuqing Zhu (University of Science and Technology of China, P.R. China)

Static Multicast Overlay in WDM Unicast Networks for Large-Scale Scientific Applications

Arush G Gadkar (University of Massachusetts, Dartmouth, USA); Jeremy Plante (University of Massachusetts Dartmouth, USA); Vinod M. Vokkarane (University of Massachusetts Dartmouth, USA)

Calculating the minimum bounds of energy consumption for cloud networks

Jens Buysse (Ghent University, Belgium); Konstantinos Georgakilas (Athens Information Technology, Greece); Anna Tzanakaki (AIT, Greece); Marc De Leenheer (Ghent University, Belgium); Bart Dhoedt (Ghent University, Belgium); Chris Develder (Ghent University - IBBT, Belgium); Piet Demeester (Ghent University, Belgium)

FIPACT: A Frame-Oriented Dynamic Bandwidth

Allocation Scheme for Triple-Play Services over EPONs

Hui-Tang Lin (National Cheng Kung University, Taiwan); Chia-Lin Lai (National Cheng Kung University, Taiwan); Wang-Rong Chang (ICT-Enabled Healthcare Program, Industrial Technology Research Institute-South, Taiwan); Chin-Lien Liu (National Cheng Kung University, Taiwan)

Service Oriented Resource Orchestration in Future Optical Networks

Chinwe Esther Abosi (University of Essex, United Kingdom); Reza Nejabati (University of Essex, United Kingdom); Dimitra Simeonidou (University of Essex, United Kingdom)

Communications Security and Management

Room: WAILUKU

Chair: Xukai Zou (School of Science, Purdue University-Indianapolis, USA)

Using DE-Optimized LFS Processing to Enhance 4G Communication Security

Paul HaKAPALUAR (Air Force Institute of Technology, USA); Mckay Williams (US Air Force Institute of Technology, USA); Michael A Temple (Air Force Institute of Technology, USA)

Digital Filter Design for Jamming Mitigation in 802.15.4 Communication

Bruce DeBruhl (Carnegie Mellon University, USA); Patrick Tague (Carnegie Mellon University, USA)

Security Risk Management in Computing Systems with Constraints on Service Disruption

Praveen Bommannavar (Stanford University, USA); Nicholas Bambos (Stanford University, USA)

TPP: The Two-Way Password Protocol

Taehwan Choi (University of Texas at Austin, USA); Hrishikesh B Acharya (University of Texas at Austin, USA); Mohamed Gouda (National Science Foundation, USA)

Wireless Communications II

Room: KAHULUI

Chair: Kewei Sha (Oklahoma City University, USA)

Modulation Classification for M-ary CPM Signals

Chih-Ping Tsu (NCU, Taiwan); Dah-Chung Chang (National Central University, Taiwan)

An Efficient Scheduling Architecture for QR Decomposition Using Fixed-point Arithmetic for Detection of STBC-VBLAST Codes

Joaquin Cortez (Instituto Tecnológico de Sonora, Mexico); Deni Torres (Cinvestav, Mexico); Erica Ruiz (Instituto Tecnológico de Sonora, Mexico)

Optimal Energy-Aware Distributed Estimation in Wireless Sensor Networks

Xusheng Sun (Georgia Institute of Technology, USA); Edward Coyle (Georgia Institute of Technology, USA)

On the Evolution of Interference in Time for Cellular Mobile Radio Networks

Ali Riza Ekti (Texas A&M University, USA); Serhan Yarkan (Texas A&M University, USA); Khalid A. Qaraqe (Texas A&M University at Qatar, USA); Erchin Serpedin (Texas A&M University, USA)

13:30 – 15:00

Panel Discussion III: Mobile and Wireless Networking

Panelists: Tarek Abdelzaher *University of Illinois at Urbana Champaign, USA), Edward Knightly (Rice University, USA), Ness Shroff (The Ohio State University, USA), Jie Wu (Temple University, USA)

15:15 – 16:45

Wireless Communication Challenges

Room: KAHULUI

Chair: Laith A Al-Jobouri (University of Essex, United Kingdom)

Flexible Unequal Error Protection Scheme for Uncompressed Video Transmission over 60GHz Multi-Gigabit Wireless System

Seung-Eun Hong (ETRI, Korea)

STBC-MIMO Network Coding with Dual Polarization Antennas

Shinji Ogawa (Yokohama National University, Japan); Fumie Ono (Yokohama National University, Japan)

Location-Free Semi-Directional Flooding for On-demand Routing in Low-Rate Wireless Mesh Networks

Seong Hoon Kim (Korea Advanced Institute of Science and Technology, Korea); Poh Kit Chong (KAIST, Korea); Woncheol Cho (Agency for Defense Development, Korea); Daeyoung Kim (Korea Advanced Institute of Science and Technology, Korea)

Dynamic Rolling-Horizon Scheduling in Energy Constrained Distributed Real-Time Embedded Systems

Chuan He (National University of Defense Technology, P.R. China); Xiaomin Zhu (National University of Defence Technology, P.R. China); Dishan Qiu (National University of Defense Technology, P.R. China); Jianghan Zhu (National University of Defense Technology, P.R. China); Manhao Ma (National University of Defense Technology, P.R. China); Chengxin Ran (National University of Defense Technology, P.R. China)

Routing and Scheduling

Room: WAILEA

Chair: James Martin (Clemson University, USA)

On Delay Performance of Throughput Optimal Back-pressure Routing: Testbed Results

Venkataramana Badarla (Indian Institute of Technology Rajasthan, India); Douglas Leith (Hamilton, Ireland)

TaCo: Semantic Equivalence of IP Prefix Tables

Ahsan Tariq (Max Planck Institute for Software Systems, Germany); Sana Jawad (Lahore University of Management Sciences, Canada); Zartash Afzal Uzmi (Lahore University of Management Sciences, Pakistan)

A Hybrid Cross-Layer Routing Protocol for MANETs

Xiaolong Li (University of California, Irvine, USA); Homayoun Yousefi'zadeh (University of California, Irvine, USA)

A Framed Packet Switch Without Control Loop

Le Yu (Sun Yat-sen University, P.R. China); Ge Nong (Sun Yat-Sen University, P.R. China); Mounir Hamdi (HKUST, KLN, P.R. China)

P2P Systems II

Room: KIHEI

Chair: Jack Brassil (HP Laboratories, USA)

ZigZag: A Content-based Publish/Subscribe Architecture for Human Networks

Yaxiong Zhao (Temple University, USA); Jie Wu (Temple University, USA)

A White-box Empirical Study of P2P-VoD Systems: Several Unconventional New Findings

Tieying Zhang (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Zhenhua Li (Peking University, P.R. China); Huawei Shen (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Yan Huang (Tencent Research, P.R. China); Xueqi Cheng (Software Lab, Institute of Computing Technology, Chinese Academy of Sciences, Beijing, P.R. China)

Can P2P Technology Benefit ISPs? A Cooperative Profit-Distribution Answer

He Huan (Tsinghua University, P.R. China); Ke Xu (Tsinghua University, P.R. China)

P2P Distributed Data Replenishment

Kien T Nguyen (Oregon State University, USA); Thinh Nguyen (Oregon State, USA); Viet Le (Oregon State University, USA); Yevgeniy Kovchegov (Oregon State University, USA)

Biometric Security and Online Applications

Room: WAILUKU

Chair: Xukai Zou (School of Science, Purdue University-Indianapolis, USA)

Biometric-based authentication: a new approach

Yan Sui (Purdue University at Indianapolis, USA); Xukai Zou (School of Science, Purdue University-Indianapolis, USA); Eliza Du (Indiana University-Purdue University Indianapolis, USA)

An ordered biometrics based fuzzy vault scheme for online authentication

Lifang Wu (Beijing University Of Technology, P.R. China); Songlong Yuan (Beijing University of Technology, P.R. China); Peng Xiao (Beijing University of Technology, P.R. China); Chang Wen Chen (State University of New York at Buffalo, USA)

Security Protection for Online Learning of Music

Haifan Yao (SUNY Buffalo, USA); Yue Ji (SUNY Buffalo, USA)

Friends or Foes: Detecting Dishonest Recommenders in Online Social Networks

Yongkun Li (The Chinese University of Hong Kong, Hong Kong); John Chi Shing Lui (Chinese University of Hong Kong, Hong Kong)

Cryptographic Algorithms and Security

Room: KAHULUI

Chair: Mohamed Gouda (National Science Foundation & University of Texas at Austin, USA)

A New Approach to Weighted Multi-Secret Sharing

Xukai Zou (School of Science, Purdue University-Indianapolis, USA); Fabio Maino (Cisco Research, USA); Elisa Bertino (Purdue University, USA); Yan Sui (Purdue University at Indianapolis, USA); Kai Wang (The University of Tennessee - Knoxville, USA); Feng Li (Indiana University-Purdue University Indianapolis, USA)

New Identity Based Multisigncrypton Scheme for Threshold Key Management in WAHN

Zhang Chuan rong (Air Force Engineering University, P.R. China); Zhang Yu qing (Graduate University of Chinese Academy of Science, P.R. China); Dong Qingkuan (The State Key Lab. of Integrated Service Network, Xidian University, P.R. China)

How Can Multipath Dissemination Help to Detect Prefix Hijacking?

Feng Wang (Liberty University, USA); Bin Dai (National University of Defense Technology, P.R. China); Jinshu Su (National University of Defence Technology, P.R. China)

Routing and Topology Discovery

Room: KIHEI

Chair: Thinh Nguyen (Oregon State, USA)

An Algebraic Approach to Computing the Reliability of Internet Routing

Qi Li (Tsinghua University, P.R. China); Mingwei Xu (Tsinghua University, P.R. China); Jianping Wu (Tsinghua University, P.R. China); Patrick Pak-Ching Lee (The Chinese University of Hong Kong, Hong Kong); Ke Xu (Tsinghua University, P.R. China)

Optimal Caching Router Placement for Reduction in Retransmission Delay

Michael P McGarry (University of Texas at El Paso, USA); Rosish Shakya (University of Akron, USA); Mesrob I Ohannessian (Massachusetts Institute of Technology, USA); Rony Ferzli (Microsoft, USA)

A Multimedia-based Fuzzy Queue-aware Routing Approach for Wireless Mesh Networks

Billy Pinheiro (Federal University of Para - UFPA, Brazil); Vagner de Brito Nascimento (Federal University of Para - UFPA, Brazil); Rafael Gomes (State University of Campinas, Brazil); Eduardo Cerqueira (Federal University of Para, Brazil); Antonio Jorge Gomes Abelem (UFPA - Federal University of Pará, Brazil)

Physical Layer Interactions in Wireless Networks

Room: WAILUKU

Chair: Serhan Yarkan (Texas A&M University, USA)

Using reconfigurable devices to maximize spectral efficiency in future heterogeneous wireless systems

Jim Martin (Clemson, USA); Rahul Amin (Clemson, USA); Ahmed M. Eltawil (University of California, Irvine, USA); Amr M. A. Hussien (University of California, Irvine, USA)
Local Spectrum Assignments in Cognitive Radio Networks
 Jie Wu (Temple University, USA); Ying Dai (Temple University, USA); Yanchao Zhao (Nanjing University, P.R. China)

The Complexity of Minimizing Receiver-Based and SINR Edge Interference

Trac Ngoc Nguyen (Raytheon Systems, USA); Min Kyung An (University of Texas at Dallas, USA); Nhat X Lam (University of Texas at Dallas, USA); Dung Huynh (University of Texas at Dallas, USA)

Spectrum Allocation for Distributed Throughput Maximization under Secondary Interference Constraints in Wireless Mesh Networks

Tong Shu (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Min Liu (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Zhongcheng Li (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China)

Thursday, August 4

8:50 - 10:15

Keynote IV

Gee-Kung Chang (Georgia Institute of Technology, USA):
“Emerging Very High Throughput Wireless over Optical
Access Networks”

Room: WAILUKU/KAHULUI

Chair: George N. Rouskas (North Carolina State University,
USA)

10:45-12:15

CRWC1: Spectrum Sensing and Spectrum Access

Room: NAPILI

Chair: Andreas J. Kassler (Karlstad University, Sweden)

*Analysis of Cognitive Radio Networks with Channel
Aggregation and Imperfect Sensing*

Telex Magloire N Ngatched (University of Manitoba,
Canada); Attahiru S. Alfa (University of Manitoba, Canada);
Jun Cai (University of Manitoba, Canada)

*Energy-aware Cooperative Spectrum Sensing with Inter-
Channel Interference Cancellation for Cognitive Radio
Networks*

Bingxuan Zhao (Waseda University, Japan); Shigeru
Shimamoto (Waseda University, Japan)

*A Delay-Optimal Spectrum Access Policy for Cognitive
Coexistence Systems*

Xiaohui Li (Xidian University, P.R. China)

ContextQoS1: Applications and Services

Room: KAHULUI

Chair: York Tüchelmann (Ruhr-University Bochum &
Research Group Integrated Information Systems, Germany)
*A Protocol-aware Network Control Method for Large-scale
Data Transfer in Long-distance Broadband Networks*

Jin Hirose (Osaka University, Japan); Ken-ichi Baba (Osaka
University, Japan); Hirotake Abe (Osaka University, Japan)
e-Health Service Characteristics and QoS Guarantee
Wei Liu (Georgia Gwinnett College, USA); E. K. Park (CSI-
CUNY, USA)

*On QoS Provisioning in Context-Aware Wireless Sensor
Networks for Healthcare*

Marion Souil (University of Technology of Compiègne,
France); Abdelmadjid Bouabdallah (Universite de
Technologie - Compiègne, France)

GridPeer1

Room: KAPALUA

Chair: Thinh Nguyen (Oregon State, USA)

*Resource Allocation for Real-Time Tasks using Cloud
Computing*

Karthik Kumar (Purdue University, USA); Jing Feng (Purdue
University, USA); Yamini Nimmagadda (Purdue University,
USA); Yung-Hsiang Lu (Purdue University, USA)

*Towards a Basic DHT Service: Analyzing Network
Characteristics of a Widely Deployed DHT*

Konrad Jünemann (Karlsruhe Institute of Technology,
Germany); Philipp Andelfinger (Karlsruhe Institute of
Technology, Germany); Hannes Hartenstein (University of
Karlsruhe, Germany)

*Mesh-Pull-based P2P Video Streaming System using
Fountain codes*

Hyung Rai Oh (POSTECH, Korea); Hwangjun Song
(POSTECH (Pohang University of Science and Technology),
Korea)

*Multi-Swarm Collaboration for Improving Content
Availability in Swarming Systems*

HyunYong Lee (National Institute of Information and
Communications Technology, Japan); Masahiro Yoshida
(University of Tokyo, Japan); Akihiro Nakao (University of
Tokyo, Japan)

MCC1: Intelligent Multimedia Computing

Room: KIHEI

Chair: Homer Chen (National Taiwan University, Taiwan)

Cross-Modal Analysis of Audio-Visual Film Montage

Matthias Zeppelzauer (Vienna University of Technology,
Austria); Dalibor Mitrovic (Vienna University of Technology
Austria, Austria); Christian Breiteneder (TU Wien, Austria)

*Enhancement of LCD Images Illuminated with Dim
Backlight*

Tai-Hsiang Huang (National Taiwan University, Taiwan); Su-
Ling Yeh (National Taiwan University, Taiwan); Homer
Chen (National Taiwan University, Taiwan)

*Eye Detection and Eye Blink Detection using AdaBoost
Learning and Grouping*

Inho Choi (Pohang University of Science and Technology,
Korea)

PMECT1: WSN, WMN and Heterogeneous Networks

Room: WAILUKU

Chair: Dong Kun Noh (Paichai University, Korea)

*Measurement-Based Short-Term Performance Prediction in
Wireless Mesh Networks*

Hua Yu (University of California, Davis, USA); Kai Zeng
(University of California, Davis, USA); Prasant Mohapatra
(University of California, Davis, USA)

*Energy-efficient Heterogeneous Data Collection in Mobile
Wireless Sensor Networks*

Long-fei Shangguan (Xidian University, P.R. China); Luo
Mai (Xidian University, P.R. China); Junzhao Du (Xidian
University, P.R. China); Hui Liu (Xidian University, P.R.
China); Wen He (Xidian University, P.R. China)

*Congestion Control in Networks with Mixed IP and P2P
Traffic*

Zhiqiang Shi (Institute of Software, Chinese Academy of
Sciences, P.R. China); Dan Ionescu (University of Ottawa,
Canada); Dongli Zhang (University of Ottawa, Canada)

coHetNets1

Room: WAILEA

Chair: David López-Pérez (King's College London, United Kingdom)

Invited Presentation

Sundeeep Rangan (Polytechnic Institute of NYU, USA)

Utility-Based Subchannel Allocation for OFDMA Femtocell Networks

Byung-Gook Kim (Yonsei University, Korea); Jeong-Ahn Kwon (Yonsei University, Korea); Jang-Won Lee (Yonsei University, Korea)

Theoretical Capacity Analysis of Multi-hop Backscatter Communication Networks

Aditya V Padaki (Missouri University of Science and Technology, USA); Maciej Zawodniok (Missouri S&T, USA)

13:30 - 15:30

CRWC2: Energy and Spectrum Conservation

Room: NAPILI

Chair: Andreas J. Kassler (Karlstad University, Sweden)

On the Performance of Multi-Channel Wireless Sensor Networks in Smart Grid Environments

Bilal Erman Bilgin (Bahcesehir University, Turkey); Vehbi Cagri Gungor (Bahcesehir University, Turkey)

Cooperative Approaches Indicating to Capacity and Power Control for Ad Hoc Wireless Network

Liuju Wu (Missouri University of Science and Technology, USA); Maciej Zawodniok (Missouri S&T, USA)

Decision-Theoretic Communication Standard Recognition in the European 868 MHz Band

Matthias Kuba (Fraunhofer Institute for Integrated Circuits IIS, Germany); Karlheinz Ronge (Fraunhofer IIS, Germany); Robert Weigel (University of Erlangen-Nuremberg, Germany)

Aligning Spectrum-User Objectives for Maximum Inelastic-Traffic Reward

Bechir Hamdaoui (Oregon State University, USA); MohammadJavad NoroozOliaee (Oregon State University, USA); Kagan Tumer (Oregon State University, USA); Ammar Rayes (Cisco / San Jose State University, USA)

GridPeer2

Room: KAPALUA

Chair: Edoardo S. Biagioni (University of Hawaii at Manoa, USA)

Maintenance-Efficient Erasure Coding for Distributed Archival Systems

Cuong Pham (UMass Boston, USA); Feng Zhang (EMC Corporation, USA); Duc A. Tran (UMass Boston, USA)

TCP-ROME: Opportunistic Fair Parallel Download Protocol

Ju-Won Park (Korea Telecom, Korea)

BTLab: A System-Centric, Data-Driven Analysis and Measurement Platform for BitTorrent Clients

Martin Szydlowski (Vienna University of Technology, Austria); Ben Y. Zhao (University of California at Santa

Barbara, USA); Engin Kirda (Institute Eurecom, France); Christopher Kruegel (University of California, Santa Barbara, USA)

LARX: Large-scale Anti-phishing by Retrospective Data-Exploring Based on a Cloud Computing Platform

Tianyang Li (Tsinghua University, P.R. China); Fuye Han (Tsinghua University, Beijing, P.R. China); Shuai Ding (Tsinghua University, P.R. China); Zhen Chen (Tsinghua University, P.R. China)

MCC2: Human-Centered Multimedia

Room: KIHEI

Chair: Matthias Zeppelzauer (Vienna University of Technology, Austria)

Local Dimming of Liquid Crystal Display Using Visual Attention Prediction Model

Chia Hang Lee (National Taiwan University, Taiwan); Wen-Hsiang Shaw (National Taiwan University, Taiwan); Hsin-I Liao (National Taiwan University, Taiwan); Su-Ling Yeh (National Taiwan University, Taiwan); Homer Chen (National Taiwan University, Taiwan)

A Multimodal Interaction Method that Combines Gestures and Physical Game Controllers

Dan Ionescu (University of Ottawa, Canada); Bogdan Ionescu (University of Ottawa, Canada); Cristian Gadea (University of Ottawa, Canada); Shahidul Islam (Mgestyk Technologies, Canada)

Detecting Practical Speech Emotion in a Cognitive Task

Cairong Zou (Foshan University, P.R. China); Chengwei Huang (Southeast University, USA); Dong Han (University of Houston, TX, USA); Li Zhao (Southeast University, P.R. China)

A Collaborative Cloud-Based Multimedia Sharing Platform for Social Networking Environments

Cristian Gadea (University of Ottawa, Canada); Bogdan Solomon (University of Ottawa, Canada); Bogdan Ionescu (University of Ottawa, Canada); Dan Ionescu (University of Ottawa, Canada)

PMECT2: Physical, MAC, Routing and TCP Layer

Room: WAILUKU

Chair: TBD

Dynamic Service-Aware Reservation Framework for Multi-Layer High-Speed Networks

Joan Triay (Universitat Politècnica de Catalunya (UPC), Spain); Derek Rousseau (University of Massachusetts Dartmouth, USA); Cristina Cervelló-Pastor (Universidad Politècnica de Catalunya, Spain); Vinod M. Vokkarane (University of Massachusetts Dartmouth, USA)

A Wireless Traffic Taxonomy for Evaluating MAC Protocol Performance

Priscila Solis Barreto (University of Brasilia, Brazil)

Performance Evaluation of TD-SCDMA System Based on A Novel Integrated Radio Testing Ring

Li Chen (Beijing University of Posts and Telecommunications, P.R. China); Bin Wang (Beijing University of Posts and Telecommunications, P.R. China); Xiaohang Chen (Beijing University of Posts and Telecommunications, P.R. China)

Consistent Random Backoff to Reduce Channel Access Delay Jitter in IEEE 802.11 WLANs

Sangheon Park (Korea University, Korea); Kihun Kim (Korea University, Korea); Wonjung Kim (Korea University, Korea); Taewon Song (Korea University, Korea)

Traditional and Reacquisition-induced Outage Prediction for DSSS and OFDMA Systems on Multipath Fading Channels

Scott Shepard (Louisiana Tech University, USA); Douglas C Schmidt (CenturyLink, USA)

On the Network Coding Delay in Multi-hop Wireless Networks with Multiple Network Coding Points

Young-Sil Kim (Ajou University, Korea); Kyungran Kang (Ajou university, Korea); Young-jong Cho (Ajou University, Korea)

ContextQoS2: Control and Optimization

Room: KAHULUI

Chairs: Patrick-Benjamin Bök (Ruhr-University Bochum, Germany), York Tüchelmann (Ruhr-University Bochum & Research Group Integrated Information Systems, Germany) Andreas Noack (Ruhr-Universität Bochum, Germany)

Invited Presentation: Advances of QoS Assessment for Wireless Networks

C. Wietfeld (TU Dortmund, Germany)

Context-Aware QoS Control for Wireless Mesh Networks of UAVs

Patrick-Benjamin Bök (Ruhr-University Bochum, Germany); York Tüchelmann (Ruhr-University Bochum, Germany)

A Simulative Performance Study of the Semantic QoS Provisioning Scheme SQoS

Patrick-Benjamin Bök (Ruhr-University Bochum, Germany); Stephanie Dühaupt (Ruhr-University Bochum, Germany)

Using Dijkstra to Compute Hop-by-Hop QoS Paths

Brad Smith (University of California, Santa Cruz, USA)

Service Degradation in Context Management Frameworks

Ahmed Shawky (Aalborg University, Denmark); Rasmus Olsen (Aalborg University, Denmark); Jens M. Pedersen (Aalborg University, Denmark); Jakob Rasmussen (Aalborg University, Denmark)

coHetNets2

Room: WAILEA

Chair: Xiaoli Chu (King's College London, United Kingdom)

Invited presentation

Vikram Chandrasekar, (Texas Instruments, USA)

Improving the Spectral Efficiency of Amplify-and-Forward Cooperative Relay Network with Adaptive M-QAM Modulation

Bhuvan C Modi (Prairie View A & M University, USA); Annamalai Annamalai (Prairie View A&M University, USA)

Improving Location Estimation with Two-Tier Particle Filtering in Mobile Wireless Environment

Kwangjae Sung (Korea University, Korea); Suk Kyu Lee (Korea University, Korea); Hwangnam Kim (Korea University, Korea)

Comparison between two Implementations of ParFlow for Simulating Femtocell Networks

Guillaume de la Roche (University of Bedfordshire, United Kingdom); Jean-Frederic Wagen (University of Applied Science of Fribourg, Switzerland); Guillaume Villemaud (Université de Lyon, INRIA, INSA-Lyon, CITI, France); Jean-Marie Gorce (INSA-Lyon, France); Jie Zhang (University of Bedfordshire, United Kingdom)

16:00 - 18:00

ContextQoS3: Wireless Networks

Room: KAHULUI

Chair: Patrick-Benjamin Bök (Ruhr-University Bochum, Germany)

QDV - A QoS Enabled Packet Scheduling Scheme for Mobile WiMAX in UAV Swarms

Bjoern Dusza (TU Dortmund University, Germany); Christian Wietfeld (TU Dortmund University, Germany)

Wireless adapter sleep scheduling based on video QoE: How to improve battery life when watching streaming video?

Márton Csernai (Budapest University of Technology, Hungary); András Gulyás (Budapest University of Technology and Economics, Hungary)

Evaluating the Impact of Transmission Power on QoS in Wireless Mesh Networks

Andreas Noack (Ruhr-Universität Bochum, Germany); Patrick-Benjamin Bök (Ruhr-University Bochum, Germany); Sebastian Krück (Ruhr-Universität Bochum, Germany)

Mesh Router Placement Exploiting Obstacles for Mitigating Interference

Sanghwan Lee (Kookmin University, Korea); Youngjun Lee (Kookmin University, Korea); Min Sun Jeong (Kookmin University, Korea); Sambit Sahu (IBM Research, USA)

An Efficient Scheduler for Real and Non-Real Time Services Maximizing Satisfied Users in Wireless Networks

Carlos Eduardo Uc-Rios (Cinvestav-ipn, Mexico); Domingo Lara-Rodriguez (Cinvestav, Mexico)

FlexBWAN: Flexible Broadband Wireless Access Networks

Room: NAPILI

Chair: Riccardo M. Scopigno (Istituto Superiore Mario Boella, Italy)

Impact of Slow Start on SCTP Handover Performance

Johan Eklund (Karlstad University, Sweden); Karl-Johan Grinnemo (Karlstad University, Sweden); Anna Brunstrom (Karlstad University, Sweden); Yuri Ismailov (Ericsson Research, Sweden)

Inbound Mobility Management on LTE-Advanced Femtocell Topology Using X2 Interface

Sangchul Oh (ETRI, Korea); Hong-Soog Kim (ETRI, Korea); Ryu Byung Han (ETRI, Korea); Nam-Hoon Park (ETRI, Korea)

Adaptive Sensing Scheduling and Spectrum Selection in Cognitive Wireless Mesh Networks

Marco Di Felice (University of Bologna, Italy); Kaushik Chowdhury (Northeastern University, USA); Andreas J.

Kassler (Karlstad University, Sweden); Luciano Bononi (University of Bologna, Italy)

Peak Power Reduction of OFDM Signals Using Trellis Shaping with M-Algorithm

Ryota Yoshizawa (Yokohama National University, Japan); Hideki Ochiai (Yokohama National University, Japan)

Impact of EPON DBA Components on Performance

Michael P McGarry (University of Texas at El Paso, USA); Martin Reisslein (Arizona State University, USA); Frank Aurzada (Technical University Berlin, Germany); Michael Scheutzwow (Technical University Berlin, Germany)

Advances on Time-Division Unbalanced Carrier Sense Multiple Access

Andrea Vesco (Istituto Superiore Mario Boella, Italy); Riccardo M. Scopigno (Istituto Superiore Mario Boella, Italy)

PMECT3: Implementation and Performance Analysis

Room: WAILUKU

Chair: TBA

Equal-rate scheduling algorithm: Implementation and Performance Analysis in IEEE 802.16m

Karthik (Centre of Excellence in Wireless Technology, India); Deepak Pengoria (Centre of Excellence in Wireless Technology, India)

An Empirical Study of NetEm Network Emulation

Functionalities

Audrius Jurgelionis (Norwegian University of Science and Technology, Norway); Jukka-Pekka Laulajainen (VTT Technical Research Centre of Finland, Finland); Matti Hirvonen (VTT Technical Research Centre of Finland, Finland); Alf Inge Wang (Norwegian University of Science and Technology, Norway)

On Kleinrock's power metric for queueing systems

Gerardo Rubino (INRIA, France)

Performance Assessment of Wireless ECG Transmission over IEEE 802.11 WLANs

Kyungtae Kang (Hanyang University, Korea); Dong Kun Noh (Paichai University, Korea)

Evaluating Chaos-based vs. Conventional Encryption Techniques for C4I System

Hanif Ullah (King Saud University, USA); Abdullah S. Alghamdi (King Saud University, Saudi Arabia); Syed Ali (King Saud University, Saudi Arabia)

SIMNA: Social Interactive Media Networking and Applications

Room: KAPALUA

Chair: Eng Keong Lua (Carnegie Mellon University & Carnegie Mellon University, University of Cambridge, NTT Labs, Singapore)

Social-Based Trust Mechanisms in Mobile Opportunistic Networks

Abderrahmen Mtibaa (Carnegie Mellon University, USA); Khaled A. Harras (Carnegie Mellon University, USA)

Contact Information Management System Architecture for Social Media

Chi-Lun Liu (Kainan University, Taiwan)

Toward Future Network Systems Boosting Interactions between People in Social Networks

Ryoichi Shinkuma (Kyoto University, Japan); Yoshinori Takata (Kyoto University, Japan); Tatsuro Takahashi (Kyoto University, Japan); Naoki Yoshinaga (NEC Corporation, Japan); Satoko Itaya (NEC Corporation, Japan); Shin-ichi Doi (NEC Corporation, Japan); Keiji Yamada (NEC C&C Innovation Research Laboratories, Japan)

Architecture for Adaptive Information Security Systems as applied to Social Networks

Jeffy Mwakalinga (University of Stockholm and Royal Institute of Technology, Sweden); Stewart Kowalski (Security Lab, Sweden)

Challenges to privacy in social networking mashups: Social TV as a case study

Karen Sollins (MIT, USA)

Personalisation in a System Combining Pervasiveness and Social Networking

Sarah Gallacher (Heriot-Watt University, United Kingdom); Elizabeth Papadopoulou (Heriot-Watt University, United Kingdom); Nick K Taylor (Heriot-Watt University, United Kingdom); Fraser Blackmun (Heriot-Watt University, United Kingdom); Howard Williams (Heriot-Watt University, United Kingdom); Ioanna Roussaki (National Technical University of Athens, Greece); Nick Kalatzis (National Technical University of Athens, Greece); Nicolas Liampotis (National Technical University of Athens, Greece); Daqing Zhang (Institut Télécom, Télécom SudParis, France)

Extraction of Hidden Common Interests between People Using New Social-graph Representation

Kazufumi Yogo (Kyoto University, Japan); Akihiro Kida (Kyoto University, Japan); Ryoichi Shinkuma (Kyoto University, Japan); Hiroyuki Kasai (The University of Electro Communication, Japan); Kazuhiro Yamaguchi (Kobe Digital Labo, Japan); Tatsuro Takahashi (Kyoto University, Japan)

coHetNets3

Room: WAILEA

Chair: Guillaume de la Roche (University of Bedfordshire, United Kingdom)

Invited Presentation

Xiaoli Chu (King's College London, UK)

Inter-Cell Interference Coordination for Expanded Region Picocells in Heterogeneous Networks

David López-Pérez (King's College London, United Kingdom); Xiaoli Chu (King's College London, United Kingdom)

Seamless Macro-Cell Anchored Radio Transmission for Enhanced Downlink Performance in Heterogeneous Networks

Krishna Balachandran (Bell Labs, Alcatel-Lucent, USA); Joseph H. Kang (Bell Labs, Alcatel-Lucent, USA); Mehmet Kemal Karakayali (Bell Labs, Alcatel-Lucent, USA); Kiran M Rege (Bell Laboratories, Alcatel-Lucent, USA)

Overview of Coordinated Multi-Point (CoMP) Transmission in Heterogeneous Network

Shyam B Mahato (University of Bedfordshire, United Kingdom); Jie Zhang (University of Bedfordshire, United Kingdom)

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