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 Walteneugs 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
ICCCCN 2011 General Chair
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
ICCCN 2011 Technical Program Co-Chairs
Conference Organizing Committee

General Chair
_ Haohong Wang, TCL Corporation, USA

Vice General Chair
_ Jin Li, Microsoft Research, USA

Program Co-Chairs
_ George Rouskas, North Carolina State University, USA
_ Xiaobo Zhou, University of Colorado at Colorado Springs, USA

Workshop General Co-Chairs
_ Liqiang Zhang, Indiana University South Bend, USA
_ Waltenegus Dargie, Technical University of Dresden, Germany

Tutorial Co-Chairs
_ Dilip Krishnaswamy, Qualcomm, USA
_ Andres Kwasinski, Rochester Institute of Technology, USA

Local Arrangements Chair
_ Xiangrong Zhou, University of Hawaii at Manoa, USA

Publicity Co-Chairs
_ Zhen Jiang, West Chester University of Pennsylvania, USA
_ Guido Maier, The Politecnico di Milano, Italy
_ Scott Fowler, Linköping University, Sweden
_ Yonggang Wen, Cisco, USA

Registration Chair
_ E.K.Park, CSI-CUNY, USA

Publications Chair
_ Kartik Gopalan, Binghamton University, USA

Student Travel Grant Co-Chairs
_ Ali Begen, Cisco Systems, Canada
_ Linda (Jiang) Xie, UNC Charlotte, USA

Industry Chair
_ Hung Nguyen, Aerospace, USA

Asian Liaison Chair
_ Tomohiko Taniguchi, Fujitsu Laboratories Limited, Japan
_ Hai Lin, Osaka Prefecture University, Japan

Web Chair
_ Xiaobo Zhou, University of Colorado at Colorado Springs, USA
Technical Program Track Chairs

**Track on Broadband Access (BAT)**
- Nasir Ghani, University of New Mexico, USA
- Jorge Finochietto, Cordoba University, Argentina
- Chadi Assi, Concordia University, Canada

**Track on Communication and Information Theory (CIT)**
- Eduard Jorswieck, Technical University of Dresden, Germany
- Mikael Skoglund, KTH Royal Institute of Technology, Sweden

**Track on Energy Efficient Networking (EEN)**
- Puneet Sharma, Hewlett-Packard Labs, USA
- Jaideep Chandrashekar, Intel Labs, USA

**Track on Internet Services and Applications (ISA)**
- Song Fu, University of North Texas, USA
- Cheng-Zhong Xu, Wayne State University, USA

**Track on Multimedia, QoS, and Traffic Modeling (MQTM)**
- Zhu Li, Hong Kong Polytechnic University, Hong Kong
- Guan-Ming Su, Dolby Labs, USA
- Fan Zhai, Texas Instruments, USA

**Track on Network Algorithms and Performance Evaluation (NAPE)**
- Ibrahim Matta, Boston University, USA

**Track on Network Architecture and P2P Protocols (NAPP)**
- Guihai Chen, Nanjing University, China
- Pavan Balaji, Argonne National Laboratory, USA

**Track on Optical Networks for Grid and Cloud Computing (ONGCC)**
- Dimitra Simeonidou, University of Essex, UK
- Javier Arcail, Universidad Autónoma de Madrid, Spain

**Track on Sensor Networks, Embedded Systems, and Pervasive Computing (SEP)**
- Christian Poellabauer, University of Notre Dame, USA

**Track on Security, Privacy, and Cyber-Physical Computing (SPCC)**
- Sheng Zhong, SUNY Buffalo, USA
- Rui Xue, Chinese Academy of Sciences, China

**Track on Wireless Ad Hoc Networks (WAHN)**
- Mihail Sichitiu, North Carolina State University, USA

**Track on Wireless Communication (WCOM)**
- Chia-Chin Chong, DOCOMO Labs, USA
- Zhu Han, University of Houston, USA
## Track on Broadband Access (BAT)

- Luciano Ahumada, Universidad Diego Portales, Chile
- Wessam Ajib, Universite du Quebec a Montreal, Canada
- Chadi Assi, Concordia University, Canada
- Marwan Batayneh, IPITEK, Inc, USA
- Abderrahim Benslimane, University of Avignon, France
- Jun Cai, University of Manitoba, Canada
- Lin Cai, University of Waterloo, Canada
- Davide Cuda, Politecnico di Torino, Italy
- Alexis Dowhaszko, Aalto University, Finland
- Ken Duffy, National University of Ireland Maynooth, Ireland
- Jad El-Najjar, Concordia University, Canada
- Georgios Ellinas, University of Cyprus, Cyprus
- Wissam Fawaz, Lebanese American University, Lebanon
- Jorge Finochietto, Cordoba University, Argentina
- Maurice Gagnaire, Ecole National Superieure des Telecommunications, France
- Nasir Ghani, University of New Mexico, USA
- Navid Ghazisaiidi, Arizona State University, USA
- Pin-Han Ho, University of Waterloo, Canada
- Bas Huiszoon, Universidad Autonoma de Madrid, Spain
- Arunita Jaekel, University of Windsor, Canada
- Juha Karjalainen, University of Oulu, Finland
- Martin Maier, Institut National de la Recherche Scientifique (INRS), Canada
- Michael McGarry, University of Texas at El Paso, USA
- Xiong Naixue, Georgia State University, USA
- Ioannis Papapanagiotou, North Carolina State University, USA
- Yvonne Anne Pignolet, North Carolina State University, USA
- Prasad Calyam, Ohio State University, USA
- Roberto Rojas-Cessa, NJIT, USA
- Samir Sebah, Concordia University, Canada
- Vijay Sivaraman, University of New South Wales, Australia
- Marc St-Hilaire, Carleton University, Canada
- Suresh Subramaniam, The George Washington University, USA
- Chunseng Xin, Norfolk State University, USA
- Marcelo Yannuzzi, Technical University of Catalonia (UPC), Spain
- Zuqiang Zhu, Cisco Systems, USA

## Track on Communication and Information Theory (CIT)

- Fady Alajaji, Queen’s University at Kingston, Canada
- Martin Bossert, University of Ulm, Germany
- Holger Boche, TU München, Germany
- Giuseppe Caire, University of Southern California, USA
- Gerhard Kramer, TU München, Germany
- Erik Larsson, LiU, Sweden
- Mariel Medard, MIT, USA
- Ralf Müller, NTNU, Norway
- Lars Rasmussen, KTH, Sweden
- Sriram Vishwanath, University of Texas, USA
- Pramod Viswanath, University of Illinois, USA

## Track on Energy Efficient Networking (EEN)

- Yuvraj Agrawal, University of California at San Diego, USA
- Ken Christensen, University of South Florida, USA
- Pere Barlet-Ros, Technical University of Catalonia, Spain
- John Davis, Microsoft Research, USA
- Rodrigo Fonseca, Brown University, USA
- Jussi Kangasharju, Helsinki University, Finland
- Lukas Kencel, Czech Technical University in Prague, Czech Republic
- Dejan Kostic, EPFL, Switzerland
- Alejandro Lopez-Ortiz, University of Waterloo, Canada
- Priya Mahadevan, Palo Alto Research Center, USA
- Laurent Mathy, Lancaster University, UK
- Michela Meo, Politecnico di Torino, Italy
- Bruce Nordman, Lawrence Berkeley National Labs, USA
- Tomas Nordstrom, Telecommunications Research Center, Vienna (FTW)
- Vyas Sekar, Intel Labs, USA
- Kai Shen, University of Rochester, USA
- Suresh Singh, Portland State University, USA
- Joel Sommers, Colgate University, USA
- Dan Keun Sung, KAIST, Republic of Korea
- Joerg Widmer, IMDEA Networks, Spain

## Track on Internet Services and Applications (ISA)

- Rui Aguiar, University of Aveiro, Portugal
- Kevin Almeroth, University of California, Santa Barbara, USA
- Yong Chen, Oak Ridge National Laboratory, USA
- Zizhong Chen, Colorado School of Mines, USA
- Byung Choi, CertusView Technologies, USA

## Track on Multimedia, QoS, and Traffic Modeling (MQTM)

- William Claycomb, Sandia National Laboratories, USA
- Michele Colajanni, University of Modena, Italy
- Grzegorz Danilewicz, Poznan University of Technology, Poland
- Lars Eggert, Nokia Research Center, Finland
- Mahadevan Gomathisankaran, University of North Texas, USA
- Raj Jain, Washington University in St. Louis, USA
- Ewa Kusmerek, Poznan Supercomputing and Networking Center, Poland
- Chengkai Li, University of Texas at Arlington, USA
- XiaoMing Li, Peking University, China
- Xiandong Meng, Lawrence Berkeley National Laboratory, USA
- Sumesh Philip, Western Illinois University, USA
- Jasleen Sahni, University of North Carolina at Chapel Hill, USA
- Kamil Sarac, University of Texas at Dallas, USA
- Dongwan Shin, New Mexico Institute of Mining and Technology, USA
- Yongning Tang, Illinois State University, USA
- Due Tran, University of Massachusetts Boston, USA
- Haichuan Wang, IBM Research - China
- Jianbin Wei, Yahoo! Inc., USA
- Chuan Wu, The University of Hong Kong, China
- Lisong Xu, University of Nebraska-Lincoln, USA
- Praveen Yalagandula, HP Labs, USA
- Weikuan Yu, Auburn University, USA
- Xiaohui Yuan, University of North Texas, USA
- Jun Zheng, New Mexico Institute of Mining and Technology, USA
- Xiliang Zhong, Microsoft, USA
- Gang Zhou, College of William and Mary, USA

## Track on Multimedia, QoS, and Traffic Modeling (MQTM)

- Fady Alajaji, Queen’s University at Kingston, Canada
- Prasad Calyam, Ohio State University, USA
- Jorge Cobb, University of Texas at Dallas, USA
- Alfonso Gazo-Cervero, University of Extremadura, Spain
- Go Hasegawa, Osaka University, Japan
- Satya Mohanty, Cisco, USA
- Julije Ozegovic, University of Split, Croatia
- Xiao Qin, Auburn University, USA
- Kurt Rohloff, BBN Technologies, USA
- Bruno Tuffin, IRISA, France
**Track on Network Architecture and P2P protocols (NAPP)**

- Ron Brightwell, Sandia National Laboratory, USA
- Abhinav Vishnu, Pacific Northwest National Laboratory, USA
- James Dinan, Argonne National Laboratory, USA
- Ahmad Alshawi, Queen's University, Canada
- Franck Cappello, INRIA, France
- Krishna Kant, NSF, USA
- Duc Tran, University of Massachusetts, Boston, USA
- Alan Wagner, UBC, Canada
- Hyun-wook Jin, Konkuk University, South Korea
- Scott Pakin, Los Alamos National Laboratory, USA
- Junhao Liu, Hong Kong University of Science and Technology, China
- Zhenhua Li, Peking University, China
- Dan Li, Tsinghua University, China
- Laurent Lefevre, INRIA, University of Lyon, France
- Yan Huang, Tencent Research, China
- Xiaoming Fu, Georg-August-University of Goettingen, Germany
- Yang Chen, Georg-August-University of Goettingen, Germany
- Hung-Chang Hsiao, National Cheng Kung University, Taiwan
- Hao-Hua Chu, National Taiwan University, Taiwan
- Jinh-Ruey Jiang, National Central University, Taiwan
- Deke Guo, National University of Defense, China
- Li Sheng, Drexel University, USA
- Xiaofei Liao, Huazhong University of Science and Technology, China

**Track on Security, Privacy, and Cyber-Physical Computing (SPCC)**

- Tingting Chen, SUNY Buffalo, USA
- Yingying Chen, Stevens Institute of Technology, USA
- Yong Cui, Tsinghua University, China
- Yingfei Dong, University of Hawaii, USA
- Zhenhai Duan, Florida State University, USA
- Longjiang Guo, Heilongjiang University, China
- Zhuo Hao, University of Science and Technology of China, China
- Zhiqiu Huang, Nanjing University of Aeronautics and Astronautics, China
- Murtuzu Jadiwala, EPFL, Switzerland
- Bao Li, Graduate University of Chinese Academy of Sciences, China
- Hongda Li, Graduate University of Chinese Academy of Sciences, China
- Jun Li, Communications Research Centre Canada, Canada
- Jianwei Liu, Beihang University, China
- Jiqiang Liu, Beijing Jiao Tong University, China
- Wenjing Lou, Worcester Polytechnic Institute, USA
- Sreekant Malladi, Dakota State University, USA
- Bina Ramamurthy, SUNY Buffalo, USA
- Ramalingam Sridhar, SUNY Buffalo, USA
- Chiu Tan, Temple University, USA
- Guilin Wang, University of Wollongong, Australia

**Track on Optical Networks for Grid and Cloud Computing (ONGCC)**
Track on Sensor Networks, Embedded Systems, and Pervasive Computing (SEP)
- Oliver Amft, TU Eindhoven, The Netherlands
- Habib M. Ammari, Hofstra University, USA
- Ian Bate, University of York, UK
- Raheem A. Beyah, Georgia State University, USA
- Edouard S. Biagioni, University of Hawaii at Manoa, USA
- Saad Biaz, Auburn University, USA
- Luciano Bononi, University of Bologna, Italy
- Tracy Camp, Colorado School of Mines, USA
- Ionut Cardei, Florida Atlantic University, USA
- Dan Chalmers, University of Sussex, UK
- Falko Dressler, University of Erlangen, Germany
- Stefan Dulman, Delft University of Technology, The Netherlands
- Alois Ferscha, University of Linz, Austria
- Eric Fleury, ENS Lyon/INRIA, France
- Polly Huang, National Taiwan University, Taiwan
- Holger Karl, University of Paderborn, Germany
- Mohan Kumar, University of Texas at Arlington, USA
- Tei-Wei Kuo, National Taiwan University, Taiwan
- Qun Li, College of William and Mary, USA
- Michael Paulitsch, EADS, Germany
- Marius Portmann, University of Queensland, Australia
- Leon Reznik, Rochester Institute of Technology, USA
- Pedro M. Ruiz, University of Murcia, Spain
- Loren Schwiebert, Wayne State University, USA
- Nadine Shillingford, Rose-Hulman Institute of Technology, USA
- Lei Shu, Osaka University, Japan
- Radu Stoleru, Texas A&M University, USA
- Aaron D. Striegel, University of Notre Dame, USA
- Violet R. Syrotiuk, Arizona State University, USA
- Sameer S. Tilk, UC San Diego, USA
- Tullio Vardanega, University of Padua, Italy
- Thomas Watteyne, UC Berkeley, USA
- Hongyi Wu, University of Louisiana at Lafayette, USA
- Mohamed Younis, UMB, USA
- Giovanni Pau, UCLA, USA
- Yu Jiao, Oak Ridge National Labs, USA
- Qiang Wang, AT&T Research Labs, USA

Track on Wireless Ad Hoc Networks (WAHN)
- Luciano Ahumada, Universidad Diego Portales, Chile
- Alhussein Abozaid, Rensselaer Polytechnic Institute, USA
- Aminabhav Ghosh, Princeton University, USA
- Anxiao Andrew Jiang, Texas A&M University, USA
- Benyuan Liu, University of Massachusetts Lowell, USA
- Fei Li, George Mason University, USA
- Qiang Wang, AT&T Research Labs, USA
- Emre Ertin, Ohio State University, USA
- Fei Li, George Mason University, USA
- Guiling Wang, NJIT, USA
- Hongwei Zhang, Wayne State University, USA
- James Liu, Applied Research Center, USA
- JJ Garcia-Luna-Aceves, UC Santa Cruz, USA
- Jason Hallstrom, Clemson University, USA
- Krishna Kumar, Venkatasubramanian University of Pennsylvania, USA
- Lichun Bao, UC Irvine, USA
- Mo Li, Nanyang Technological University, Singapore
- Nilanjan Banerjee, University of Arkansas - Fayetteville, USA
- Olga Goussvekaia, ETH Zurich, Switzerland
- Omer Gurewitz, Ben-Gurion University of the Negev, Israel
- Pan Li, Mississippi State University, USA
- Pei Zhang, Carnegie Mellon University, USA
- Qi Han, Colorado School of Mines, USA
- Qing Cao, University of Tennessee, USA
- Stefan Schmid, TU Berlin, Germany
- Stefano Basagni, Northeastern University, USA
- Tarek Abdelzaher, UIUC, USA
- Tridib Mukherjee, Arizona State University, USA
- Umakishore Ramachandran, Georgia Institute of Technology, USA
- Venkataramana Badarla, National University of Ireland, Ireland
- Wensheng Zhang, Iowa State University, USA
- Xiaole Bai, University of Massachusetts Dartmouth, USA
- Xin Wang, Florida Atlantic University, USA
- Xingbing Wang, Shandong Jiaotong University, China
- Ye Xia, University of Florida, USA
- Ying Zhang, Palo Alto Research Center, USA
- Marcelo Yannuzzi, Technical University of Catalonia (UPC), Spain
- Sanglu Lu, Nanjing University, China
- Francois Baccelli, INRIA-ENS, France

Track on Wireless Communication (WCOM)
- Manav Bhatnagar, Indian Institute of Technology, India
- Nadia Fawaz, MIT, USA
- Ahmed Ibrahim, Cairo University, Egypt
- Behrouz Maham, University of Oslo, Norway
- Walid Saad, Princeton University, USA
- Karim Seddik, Alexandria University, Egypt
- Yongle Wu, University of Maryland, USA
- Xiangyun Zhou, University of Oslo, Norway
- Quanjuan Zhu, UIUC, USA
- Lei Jiang, Universidad Autónoma de Barcelona, Spain
- Yingqing Li, Rice University, USA
- Ju Song, Kyung Hee University, Korea
- Lun Dong, UC Irvine, USA
- Miaoxiong Dong, University of Waterloo, Canada
- Ismail Guven, DOCOMO Labs, USA
- Senhua Huang, UC Davis, USA
- Aravind Kailas, UNC Charlotte, USA
- Yong Liu, Marvell, USA
- Stefan Valentin, Bell Laboratories, USA
- Yue Wang, Toshiba Research Europe Limited, UK
- Chau Yuen, Singapore University of Technology and Design, Singapore
- Wei Li, University of Victoria, Canada
- Pengfei Xia, Broadcom, USA
- Huilin Xu, University of Florida, USA
Additional Reviewers

- Abbasi, Ali
- Abbasi, Ubaid
- Ahlund, Christer
- Ahmed, Mohamed
- Ahmed, Sadia
- Ainslie, Alex
- Ali, Syed Taha
- Applebaum, Lorne
- Ariyavisitakul, Sirikiat
- Baccaglini, Enrico
- Bennis, Mehdi
- Benvenuto, Nevio
- Benyamin-Seecharan, Anader
- Bermolen, Paola
- Bhat, Veena
- Bilogrevic, Igor
- Biton, Erez
- Bless, Roland
- Bonetto, Edoardo
- Bouhorma, Mohammed
- Bovik, Alan
- Bradai, Abbas
- Buntinas, Darius
- Butt, M.
- Cao, Chang
- Cavalcanti, Francisco
- Chatterjee, Saikat
- Chatzidiamantis, Nestor
- Cicconetti, Claudio
- Corvino, Virginia
- D'Alessandro, Salvatore
- Dan, György
- de la Roche, Guillaume
- Desgresy, Patricia
- Deumal, Marc
- Ding, Cong
- Diouri, Mohammed el Mehdi
- Divakaran, Dini Mon
- Dobre, Octavia
- Dohl, Jan
- Dujovne, Diego
- Eckert, Juergen
- Eidson, Brian
- El-Sherif, Amr
- Esposito, Flavio
- Falcao, Gabriel
- Faulkner, Michelle
- Feng, Yunlong
- Fernandes, Fabio
- Ferrett, Terry
- Forouzandehmehr, Najmeh
- Franz, Elke
- Freisleben, Bernd
- Gadkar, Arush
- Gattami, Ather
- Golbabaei, Mohammad
- Graeff i Amat, Alexandre
- Grant, Ryan
- Green, Roger
- Gummadhi, Ramakrishna
- Guo, Hui
- Gürsun, Gonca
- Gurtov, Andrei
- Haenselmann, Thomas
- Hammerstrom, Don
- Han, Huazhong
- Händel, Peter
- Hao, Yong
- Hoymann, Christian
- Huang, Jianwei
- Huang, Xiaopeng
- Huang, Yi
- Ikeda, Yasuhiro
- Indulska, Jadwiga
- Iyer, Mohan
- Jesus, Vitor
- Ji, Shouling
- Jia, Weijia
- Jiang, Changlin
- Jiang, Jinfang
- Jin, Cheng
- Jin, Junfeng
- Jin, Long
- Joung, Jingon
- Karkooti, Marjan
- Karuppasami, Sridhar
- Katti, Sachin
- Kawahara, Ryoichi
- Kim, Ki-Joon
- Kimpe, Dries
- Kirchner, Matthias
- Koike-Akino, Toshiaki
- Kwasinski, Andres
- Kwon, Do-Hoon
- Lahoud, Samer
- Lampe, Lutz
- Lan, Kun-chan
- Lang, Matthew
- Larkins, Brian
- Larsson, Erik
- Larsson, Erik G.
- Lau, Buon Kiong
- Li, Baosheng
- Li, Hongkun
- Li, Yifan
- Li, Yingying
- Li, Yu
- Li, Zhaoyuan
- 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
- Ortmanh, Maurits
- Paasch, Christoph
- Pandana, Charles
- Park, Pangun
- Penoff, Brad
- Petrescu, Teodor
- Qin, Hua
- Rashiti, Mohammad
- Ricciardi, Sergio
- Riga, Niky
- Rong, Beiyu
- Rusek, Fredrik
- Sahlin, Henrik
- Schoenen, Rainer
- Schwarz, Stefan
- Senft, Martin
- Shang, Yunfei
- Shen, Haiying
- Shen, Meng
- Siegel, H. J.
- Song, Ju
- Song, Yuan
- Su, Wei
- Sun, Guanglu
- Sun, Peng
- Taha, Abd-Al-Hamid
- Tan, Wei-Lum
- Tang, Jin
- Tanoli, Shujaat Ali Khan
- Thobaben, Ragnar
- Tian, Jie
- Tian, Xiaohua
- Traverso, Stefano
- Triay, Joan
- Tzortzakakis, Michail
- Uluagac, Arif
- Uriar, Tomas
- Vasic, Nedeljko
- Vehkaperä, Mikko
- Venkiah, Augustine
- Vishwanath, Arun
- von Wyczka, Peter
- Vorobyeva, Ekaterina
- Wang, Di
- Wang, Gang
- Wang, Jun
- Wang, Ruhai
- Wang, S.
- Wang, Wenwu
- Werthmann, Thomas
- Wischik, Damon
- Wu, Leijia
- Wu, Yi
- Wyrembski, 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
- Zhan, Jianhu
- Zhang, Liqiang
- Zhang, Rongqiang
- 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**

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

**Monday, August 1, 2011 – Main Conference**

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

**Tuesday, August 2, 2011 – Main Conference**

<table>
<thead>
<tr>
<th>Time</th>
<th>WAILUKU</th>
<th>KAHULUI</th>
<th>KIHEI</th>
<th>WAILEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:00-17:00</td>
<td>Registration (Foyer/Maui Ball Room)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08:50-10:15</td>
<td>Keynote II -- Speaker: Dr. Victor Bahl, Microsoft Research (WAILUKU/KAHULUI)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:15-10:45</td>
<td>Coffee Break</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:45-12:15</td>
<td>Networking in Ad-Hoc Networks</td>
<td>Data Collection, Aggregation, and Processing</td>
<td>Resource Management for Internet Applications</td>
<td>Reliability and Service Provisioning</td>
</tr>
<tr>
<td>12:15-13:30</td>
<td>Lunch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:30-15:00</td>
<td>Panel Discussion II: Next-Generation Networks (WAILUKU/KAHULUI)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:00-15:15</td>
<td>Networking Break</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Network Security II</td>
<td>Wireless Communications I</td>
<td>Video Coding and QoS</td>
<td>Dynamic and flexible optical network service provisioning</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------</td>
<td>---------------------------</td>
<td>----------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>15:15-16:45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:45-17:00</td>
<td></td>
<td></td>
<td></td>
<td>Coffee Break</td>
</tr>
<tr>
<td>17:00-18:30</td>
<td>Mobile Ad-Hoc Networks</td>
<td>Localization and Navigation</td>
<td>P2P Systems I</td>
<td>Transport and Resource Allocation</td>
</tr>
<tr>
<td>19:00</td>
<td></td>
<td></td>
<td></td>
<td>Conference Banquet (OCEAN Lawn)</td>
</tr>
</tbody>
</table>

Wednesday, August 3, 2011 – Main Conference

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

Thursday, August 4, 2011 – Workshops

<table>
<thead>
<tr>
<th>Time</th>
<th>WAILUKU</th>
<th>KAHULUI</th>
<th>KIHEI</th>
<th>WAILEA</th>
<th>KAPALUA</th>
<th>NAPILI</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:00-13:00</td>
<td>Registration (Foyer/Maui Ball Room)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:00-10:15</td>
<td>Keynote IV: Speaker: Dr. Gee-Kung Chang, Georgia Tech, USA (WAILUKU/KAHULUI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:15-10:45</td>
<td>Coffee Break</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:45-12:15</td>
<td>PMECT1</td>
<td>ContextQoS1</td>
<td>MCC1</td>
<td>CoHetNets1</td>
<td>GridPeer1</td>
<td>CRWC1</td>
</tr>
<tr>
<td>12:15-13:30</td>
<td>Lunch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:30-15:30</td>
<td>PMECT2</td>
<td>ContextQoS2</td>
<td>MCC2</td>
<td>CoHetNets2</td>
<td>GridPeer2</td>
<td>CRWC2</td>
</tr>
<tr>
<td>15:30-16:00</td>
<td>Coffee Break</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:00-18:00</td>
<td>PMECT3</td>
<td>ContextQoS3</td>
<td>CoHetNets3</td>
<td>SIMNA</td>
<td>FlexBWAN</td>
<td></td>
</tr>
</tbody>
</table>
**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 Reccati (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 Technologi 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 Pol 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)
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 Rocce (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
Abdenour 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); Jo´ao 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)

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 (Elizabethtown 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 Terman 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 Networks

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 Roccetti (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)

WiMAN6: Ad-Hoc, Mesh and Vehicular Networks

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. Kassler (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 (Luxembourg); Bernabe Dorronsoro (University of Luxembourg, Luxembourg); Pascal Bouvry (University of Luxembourg, Luxembourg)

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
Zhenzhao Ye (Chens, Inc., USA); Alhussein A. Abouzeid (Rensselaer Polytechnic Institute, USA)

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 Bulul (Rensselaer Polytechnic Institute, USA); Boleslaw K Szymanski (Rensselaer Polytechnic Institute, USA)

HTTP: 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 Technologi Petronas, Malaysia)
Monday, August 1

8:30 - 10:15

Welcome and Keynote I


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)

Energy Efficient Networking

Room: WAILEA
Chair: Shan Lin (Temple Univ, USA)

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: KAHULUI
Chair: Satya R Mohanty (Cisco Systems, USA)

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 CDFA 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); Qin Ye Yin (Xi'an jiaotong university, P.R. China); Geoffre 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)
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 Obrazcza (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 Florida at 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); Luís Rodrigues (INESC-ID/IST, Portugal)
Joint Routing and Stream Control Scheduling in MIMO-Based WMNs
Matadeen Bansal (ABV-Indian Institute of 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)

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); 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: KAHLULI
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); Luís 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); 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); Thin 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 RotheKAPALUAL (University of Stuttgart, Germany)

Survivable Network Design Models based on Pre-Cross-Connected Trails
Mohammad Seyed Kiae (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-Naemi (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 Mitbaa (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: WAILUKU
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 (Ines-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)

Network Security II

Room: KAHULUI
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); Muthucumar 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
Joohwan 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
Haiyin 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)

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
Aytaç 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)

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 Bommanavar (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); Duh-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 Tecnologico 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 Defense 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)
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)

*A New Identity Based Multisigncryption Scheme for Threshold Key Management in WAHN*  
Zhang Chuanyong (Air Force Engineering University, P.R. China); Zhang Yuxing (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 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)

Marion Soulé (University of Technology of Compiègne, France); Abdelmadjid Bouabdallah (Université 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); Yamin Nimmagadda (Purdue University, USA); Yung-Hsiang Lu (Purdue University, USA)

Towards a Basic DHT Service: Analyzing Network Characteristics of a Widely Deployed DHT
Konrad Jüinemann (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); Hwangjiun 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)
**Room:** WAILEA  
**Chair:** David López-Pérez (King's College London, United Kingdom)  
**Invited Presentation**  
Sundeept 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)

**Time:** 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); Vehebi 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 Politécnica 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 Pack (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 Böök (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 Böök (Ruhr-University Bochum, Germany); York Tüchelmann (Ruhr-University Bochum, Germany)

A Simulative Performance Study of the Semantic QoS Provisioning Scheme SoQs
Patrick-Benjamin Böök (Ruhr-University Bochum, Germany); Stephanie Dünhaupt (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)

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 Villedenaud (Université de Lyon, INRIA, INSA-Lyon, CITI, France); Jean-Marie Gorice (INSA-Lyon, France); Jie Zhang (University of Bedfordshire, United Kingdom)

16:00 - 18:00

ContextQoS3: Wireless Networks

Room: KAHULUI

Chair: Patrick-Benjamin Böök (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 Böök (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 Brunnstrom (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 Aurszada (Technical University Berlin, Germany); Michael Scheutzow (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**

Audiur 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 (Paichi 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 Mitbaa (Carnegie Mellon University, USA); Khaleed A. Harra (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 Lianmptis (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 Karayayali (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)
ICCCN 2011 Sponsors

IEEE Communications Society

Student Travel Grants (pending) by U.S. National Science Foundation

Qualcomm

Microsoft Research

EiC