

ICNC 2016 Technical Program

Kauai, Hawaii, USA
Feb. 15-18, 2016
<http://www.conf-icnc.org>



Monday, February 15

Monday, February 15, 08:30 - 09:30

Keynote Talk: Network-Aware Distributed Algorithms

Speaker: Nitin Vaidya, University of Illinois, USA

Room: Poipu I

Chair: JJ Garcia-Luna-Aceves (University of California at Santa Cruz & Palo Alto Research Center, USA)

Monday, February 15, 10:00 - 12:00

A1: Distinguished Lecture - Socially Enabled Wireless Networks

Speaker: Kwang-Cheng Chen, National Taiwan University, Taiwan

Room: Poipu I

Chair: Liuqing Yang (Colorado State University, USA)

NIME: Networking Issues in Multimedia Entertainment

Room: Poipu II

Chair: Paola Salomoni (University of Bologna, Italy)

Walking with Geo-Zombie: a Pervasive Game to Engage People in Urban Crowdsourcing

Catia Prandi, Paola Salomoni and Marco Rocchetti (University of Bologna, Italy);
Valentina Nisi (University of Madeira, Italy); Jardim Nunes (University of Madeira,
Portugal)

On the design of a word game to enhance Italian language learning

Paola Salomoni and Marco Rocchetti (University of Bologna, Italy); Mathieu Loiseau, Monica Masperi and Virginie Zampa (Université Stendhal Grenoble, France); Andrea Ceccherelli, Cristiana Cervini and Antonella Valva (University of Bologna, Italy)

"di Piazza in Piazza": Reimagining Cultural Specific Interactions for People-centered Exhibitions

Silvia Mirri, Paola Salomoni, Alberto Pizzinelli and Marco Rocchetti (University of Bologna, Italy); Claudio E. Palazzi (University of Padua, Italy)

Reducing Queuing Delays through VoAP

Claudio E. Palazzi and Armir Bujari (University of Padua, Italy); Silvia Mirri (University of Bologna, Italy)

Optimizing the Lagrange Multiplier in Perceptually-Friendly High Efficiency Video Coding For Mobile Applications

Sima Valizadeh, Panos Nasiopoulos and Rabab Ward (University of British Columbia, Canada)

Effect on Vehicle Safety from Nonexistent or Silenced Basic Safety Messages

George Corser (Saginaw Valley State University & Oakland University, USA); Huirong Fu (Oakland University, USA); Alejandro Arenas (SVSU, USA)

SIREN: Sustainability, Implementation and Resilience of Energy-aware Networks

Room: Poipu III

Chair: Luca Chiaraviglio (University of Rome Sapienza, Italy)

The Expected Impact of Smart Devices Virtualization

Raffaele Bolla (University of Genoa, Italy); Roberto Bruschi (CNIT, Italy); Franco R. Davoli (University of Genoa & National Inter-University Consortium for Telecommunications (CNIT), Italy); Chiara Lombardo (University of Genoa & CNIT-Research Unit of the University of Genoa, Italy); Laura Masullo (University of Genoa, Italy)

Robust Software-Defined Optical Networking for the Power Grid

Houman Rastegarfar (University of Arizona, USA); Daniel Kilper (University of Arizona & Center for Integrated Access Networks, USA)

A Traffic and Resource-aware Energy-Saving Mechanism in Software Defined Networks

Mahshid Rahnamay Naeini, Sonali Sen Baidya and Ehsan Siavashi (Texas Tech University, USA); Nasir Ghani (University of South Florida, USA)

Optimal Energy Harvest-based Weighed Cooperative Spectrum Sensing in Cognitive Radio

Xin Liu, Yan Junhua and Kunqi Chen (Nanjing University of Aeronautics and Astronautics, P.R. China)

SPAN & CNC: Sensor, Peer-to-peer and Social Networks

Room: Koloa I/II

Chair: Lei Chen (Georgia Southern University, USA)

ZigBee Network System for Observing Operating Activities of Work Vehicles

Tatsuya Kobayashi (Nagaoka University of Technology, Japan); Hiroshi Yamamoto (Ritsumeikan University, Japan); Katsuyuki Yamazaki (Nagaoka University of Technology, Japan)

Sensor System to Advise Health-aware Information for Elderly People based on Daily Living Activities

Tomoya Ohiwa (Nagaoka University of Technology, Japan); Hiroshi Yamamoto (Ritsumeikan University, Japan); Katsuyuki Yamazaki (Nagaoka University of Technology, Japan)

Investigating The Security and Digital Forensics of Video Games and Gaming Systems: A study of PC games and PS4 console

Lei Chen (Georgia Southern University, USA); Narasimha K Shashidhar (Sam Houston State University, USA); Danda B. Rawat (Georgia Southern University, USA); Ming Yang (Southern Polytechnic State University, USA); Christopher Kadlec (Georgia Southern University, USA)

Adaptive Threshold-based RF Spectrum Scanning Through Joint Energy and Bandwidth Detection with USRPs in Cognitive Sensor Networks for ROAR Architecture

Isaac Cushman, Ashraf Younis, Danda B. Rawat and Lei Chen (Georgia Southern University, USA)

Optimal Energy-efficient Multichannel Cognitive Radio with Primary Energy Harvesting

Xin Liu and Yan Junhua (Nanjing University of Aeronautics and Astronautics, P.R. China)

Developing a User-friendly Sensor Network Simulator to Imitate Wireless Charging Vehicle Behaviors

Shuo-Han Chen (National Tsing Hua University, Taiwan); Tseng-Yi Chen (Academia Sinica, Taiwan); Yu-Chun Cheng (National Tsing Hua University, Taiwan); Hsin-Wen Wei (Tamkang University, Taiwan); Tsan-sheng Hsu (Academia Sinica, Taipei, Taiwan); Wei-Kuan Shih (National Tsing Hua University, Taiwan)

ReSNE: Reconfigurable Sensor Network Emulator Virtualizing Integrated Large-Scale Sensor Network

Daisuke Baba, Naoki Suematsu, Shun Nabeshima and Toshiaki Miyazaki (The University of Aizu, Japan)

WiSARN & CNC: Wireless Sensor, Actuator and Robot Networks

Room: Koloa III

Chair: Vincent Fremont (Université de Technologie de Compiègne, France)

On Mobile Sensor Data Collection Using Data Mules

Arun Das and Anisha Mazumder (Arizona State University, USA); Arunabha Sen (ASU, USA); Nathalie Mitton (Inria Lille - Nord Europe, France)

UAV-Assisted Disaster Management: Applications and Open Issues

Milan Erdelj and Enrico Natalizio (Université de Technologie de Compiègne, France)

Multi-UAVs Network Communication Study for Distributed Visual Simultaneous Localization and Mapping

Nesrine Mahdoui, Enrico Natalizio and Vincent Fremont (Université de Technologie de Compiègne, France)

ADP: An Adaptive Feedback Approach for Energy-Efficient Wireless Sensor Networks

Afraa Attiah (University of Central Florida, USA); Muhammad Faisal Amjad (National University of Sciences and Technology, Islamabad, Pakistan); Omar Nakhila and Cliff Zou (University of Central Florida, USA)

Energy Efficient Movement of Wireless Sensors with Adjustable Sensing Ranges for Mending Barrier Gaps

Han Xu (China Ship Development and Design Center, P.R. China); Zhongyuan Lai and Liu Chang (Jiangnan University, P.R. China)

An Energy Balance Mechanism for Monitoring in Partial Rechargeable WMSNs

Li-Ling Hung (Aletheia University, Taiwan)

An Energy Flowing Mechanism for Extending Monitored Lifetime in Partial Rechargeable WSNs

Li-Ling Hung (Aletheia University, Taiwan)

Monday, February 15, 13:30 - 15:30

A2: Distinguished Lecture - Molecular Communication for Future Nanonetworks

Speaker: Robert Schober, Friedrich Alexander University, Germany

Room: Poipu I

Chair: Liuqing Yang (Colorado State University, USA)

CNC I: Wireless Networking

Room: Poipu II

Chairs: Chee-Ha Kim (Pohang University of Science and Technology, Korea), Jialing Liu (Huawei, USA)

Enhanced DRX-Aware Scheduling for Mobile Users in LTE Networks

Yu Liu (University of California, Davis, USA); Minh Huynh (AT&T Labs, USA); Dipak Ghosal (University of California, Davis, USA)

Performance Evaluation for Coexistence of LTE and WiFi

Zhiyi Zhou and Fei Teng (Northwestern University, USA); Jialing Liu and Weimin Xiao (Huawei, USA)

Mobility Assisted Device-to-Device Communications Underlying Cellular Networks

Chuhan Gao, Yong Li and Depeng Jin (Tsinghua University, P.R. China)

Resource Allocation Using Graph Coloring for Dense Cellular Networks

Suzan Basloom, Amani Nazar and Ghadah A Aldabbagh (King Abdulaziz University, Saudi Arabia); Manal Abdullah (King Abdulaziz University & Collage of Computing and Information Technology, Saudi Arabia); Nikos Dimitriou (NCSR Demokritos, Greece)

A Full Duplex MAC Protocol for Efficient Asymmetric Transmission in WLAN

Chulmin Kim (POSTECH, Korea); Chee-Ha Kim (Pohang University of Science and Technology, Korea)

Characteristic Time based Routing in Information Centric Networks

Bitan Banerjee (University of Alberta, Canada); Anand Seetharam (California State University Monterey Bay, USA); Amitava Mukherjee (IBM India Private Limited, India); Mrinal Kanti Naskar (Jadavpur University, India)

State Transition Factor of Three-state Markov Channels

Liang Huang, Jiefan Qiu and Liping Qian (Zhejiang University of Technology, P.R. China)

CNC II: Wireless Communications I

Room: Poipu III

Chairs: Kheong Sann Chan (Data Storage Institue, Singapore), Hui-Ming Wang (Xi'an Jiaotong University, P.R. China)

Network MIMO with Partial Cooperation between Radar and Cellular Systems

Ahmed Abdelhadi and T. Charles Clancy (Virginia Tech, USA)

BP-based Detection of Spatially Multiplexed 16-QAM Signals in a Fully Massive MIMO System

Tomoya Usami, Toshihiko Nishimura, Takeo Ohgane and Yasutaka Ogawa (Hokkaido University, Japan)

Chaotic Circle Map Interleaver for OFDM

Anish Nair (University of Texas at Dallas, USA); Kamran Kiasaleh (Universsity of Texas at Dallas, USA)

Quadrature Index Modulated OFDM with Interleaved Grouping for V2X Communications

Meng Zhang (Peking University, P.R. China); Haowen Wang (Shanghai Research Center for Wireless Communications, P.R. China); Xiang Cheng (Peking University, P.R. China); Liuqing Yang (Colorado State University, USA); Xiaotian Zhou (Shandong University, P.R. China)

A Unified Approach to Analyze the Average Bit Error Probability in Generalized Fading Channels with Additive Generalized Gaussian Noise

Osamah S. Badarneh (University of Tabuk, Saudi Arabia); Kadoch Michel (ETS University of Quebec, Canada); Ibrahim E. Atawi (University of Tabuk, Saudi Arabia)

Impact of Fading Severity and Receive Antenna Correlation on TAS/MRC under Nakagami Fading

Juan P. Peña-Martín (University of Malaga, Spain); Concepción Téllez Labao (University of Málaga, Spain); Juan M. Romero-Jerez (University of Malaga, Spain)

Development of Accurate Expressions for the Estimation of Delay Spread in Simulcast Networks Under Weibull Fading

Mohammed Aloqlah, Ahmad M. Alshamali and Tamara Bani Salman (Yarmouk University, Jordan)

CNC III: Communications Security

Room: Koloa I/II

Chair: Omer H. Abdelrahman (Imperial College London, United Kingdom)

Non-Cooperative and Cooperative PUEA Detection Using Physical Layer in Mobile OFDM-Based Cognitive Radio Networks

Trong Nghia Le, Wen-Long Chin and Ya-Hsuan Lin (National Cheng Kung University, Taiwan)

Location-Enhanced Authenticated Key Exchange

Marcos Portnoi (University of Delaware, USA); Chien-Chung Shen (University of Delaware & Department of Computer and Information Sciences, USA)

Robust Scheme to Protect Authentication Code of Message/Image Documents in Cloud Computing

Zaid Ameen Abduljabbar and Hai Jin (Huazhong University of Science and Technology, P.R. China); Alamri Ali Adil Yassin (Basra University, Iraq); Zaid Alaa Hussien, Mohammed Abdulridha Hussain and Salah H. Abbdal (Huazhong University of Science

and Technology, P.R. China); Deqing Zou (Huazhong University of Science and Technology, P.R. China)

Secure Distributed Membership Tests via Secret Sharing; How to Hide Your Hostile Hosts: Harnessing Shamir Secret Sharing

David J Zage (Intel Corporation, USA); Helen Xu, Thomas Kroeger, Bridger Hahn and Nolan Donoghue (Sandia National Laboratories, USA); Thomas Benson (Tufts University, USA)

An Approach for Detection and Family Classification of Malware Based on Behavioral Analysis

Steven Hansen, Thor Larsen, Matija Stevanovic and Jens M. Pedersen (Aalborg University, Denmark)

On the Feasibility of Machine Learning as a Tool for Automatic Security Classification: A Position Paper

Anis Yazidi (Høgskolen i Oslo og Akershus, Norway); Hugo Hammer and Aleksander Bai (Oslo University College, Norway); Paal E. Engelstad (Oslo and Akershus University College, University of Oslo/UNIK and FFI, Norway)

Touchless Interaction for Future Mobile Applications

Thomas Kopinski (Hochschule Ruhr West, Germany); Uwe Handmann (University of Applied Sciences Ruhr West, Germany)

CNC IV: Vehicular Networks

Room: Koloa III

Chair: Lei Chen (Georgia Southern University, USA)

Cost Effective Mobile and Static Road Side Unit Deployment for Vehicular Adhoc Networks

Donghyun Kim and Yesenia Velasco (North Carolina Central University, USA); Zishen Yang and Wei Wang (Xi'an Jiaotong University, P.R. China); Rasheed Hussain (Innopolis University & Information Security and Privacy Lab, Russia); RN Uma (NCCU, USA)

A Graph Coloring Resource Sharing Scheme for Full-Duplex Cellular-VANET Heterogeneous Networks

Tinghan Yang (Peking University, P.R. China); Rongqing Zhang (Colorado State University, USA); Xiang Cheng (Peking University, P.R. China); Liuqing Yang (Colorado State University, USA)

Performance Evaluation for Multi-antenna Vehicular Communication Based on IEEE 802.11p Standard

Shuangshuang Han (Institute of Automation, Chinese Academy of Sciences, P.R. China); Kai Zhao (Chinese Academy of Science, P.R. China); Liuqing Yang (Colorado State University, USA); Xiang Cheng (Peking University, P.R. China)

Developing Modulator and Demodulator for the EU eCall In-Vehicle System in FPGAs

Majeed Nader and John Q. Liu (Wayne State University, USA)

Performance Analysis of Android-based Real-time Message Dissemination in VANETs

Wantanee Viriyasitavat, Soranut Midtrapanon, Takkachai Rittirat and Sornrakitch Thanumaiweerakun (Mahidol University, Thailand)

Monday, February 15, 16:00 - 18:00

A3: Distinguished Lecture - Large Scale Sensing over Complex Networks

Speaker: Shuguang (Robert) Cui, Texas A&M University, USA

Room: Poipu I

Chair: Xiang Cheng (Peking University, P.R. China)

Large Scale Sensing over Complex Networks

Shuguang Cui (Texas A&M University, USA)

CNC V: Communications QoS

Room: Poipu II

Chairs: Mustafa Sanlı (Aselsan Inc, Turkey), Ahmed Abdelhadi (Virginia Tech, USA)

A QoS-based Power Allocation for Cellular Users with Different Modulations

Ying Wang (University of Michigan, USA); Ahmed Abdelhadi (Virginia Tech, USA)

Resource Allocation in Cellular Systems for Applications with Random Parameters

Zaid Kbah (University of New Haven & University of Technology, USA); Ahmed Abdelhadi (Virginia Tech, USA)

Integrated QoS provisioning for unified LTE-WiMAX networks

Joswill Victor Pajaro Rodriguez (University of New Haven, USA); Amir Esmailpour (University of New Haven & Ryerson University, USA)

Window Based Fair Aggregator for the Scalable Support of QoS Guarantees in the Backbone: An Experimental Performance Study

Mustafa Sanlı (Aselsan Inc, Turkey); Aydın Pehlivanlı (Aselsan, Turkey); Senan Ece Schmidt (Middle East Technical University, Turkey)

Internet Video Traffic Classification using QoS Features

Zai-Jian Wang (Anhui Normal University, P.R. China); Yu-ning Dong (Nanjing University of Posts and Telecommunications, P.R. China); Hai-xian Shi (Nanjing Agricultural University, P.R. China); Yang Lingyun and Tang Pingping (Anhui Normal University, P.R. China)

Network-assisted Multipath DASH using the Distributed Decision Engine

Tiia Ojanperä and Janne Vehkaperä (VTT Technical Research Centre of Finland, Finland)

Performance Evaluation of Alternative Routing in a Wireless Mesh Network with an Adaptive Array

Kosuke Suzuki, Toshihiko Nishimura, Takeo Ohgane and Yasutaka Ogawa (Hokkaido University, Japan)

CNC VI: Wireless Communications II

Room: Poipu III

Chairs: Sebastien Roy (University of Sherbrooke, Canada), Zhiqiang Wu (Wright State University, USA)

High Performance Phase Rotated Spreading Codes for MC-CDMA

Zhiping Zhang and Yang Qu (Wright State University, USA); Lin Zhang (Sun Yat-sen University & SYSU-CMU Shunde International Joint Research Institute, P.R. China); John Ellinger (Air Force Research Laboratory, USA); Zhiqiang Wu (Wright State University, USA)

Performance Analysis of Diversity Combining Techniques in Double-Rayleigh Channels

Mohamed Lassaad Ammari (Université Laval, Canada); Sebastien Roy (University of Sherbrooke, Canada)

On the performance of amplifier-aware dense networks: Finite block-length analysis

Behrooz Makki, Chao Fang and Tommy Svensson (Chalmers University of Technology, Sweden); Masoumeh Nasiri-Kenari (Sharif University of Technology, Iran)

A Dynamic Forward Error Control Scheme for Video Streaming over Wireless Networks

Emilia Weyulu (Polytechnic of Namibia & Telecom Namibia, Namibia); Guy-Alain Lusilao-Zodi (Polytechnic of Namibia, Namibia)

Energy-Efficient Full Diversity Unitary Space-Time Block Code Designs Using QR Decomposition

Eleanor Leung and Jian-Kang Zhang (McMaster University, Canada)

Optimization of Codes for the Joint Viterbi Detector Decoder (JVDD)

Sari Shafidah (Data Storage Institute & Nanyang Technological University, Singapore); Kheong Sann Chan (Data Storage Institute, Singapore); Wang Ling Goh (Nanyang Technological University, Singapore)

Echo Decomposition Based Time Delay Sensor with Sub-Sample Resolution

Raghuprasad Bettadapura (Virginia Tech, USA); A. A. (Louis) Beex (DSPRL - Wireless@VT & Virginia Tech, USA)

CNC VII: Optical Networks

Room: Koloa I/II

Chair: Paolo Monti (KTH Royal Institute of Technology, Sweden)

Migration-Aware Protection Scheme for Optical Networks Evolving from Fixed grid to Flexible Grid

Xiaosong Yu, Yongli Zhao and Yuanlong Tan (Beijing University of Posts and Telecommunications, P.R. China); Guoying Zhang (China Academy of Telecom Research, P.R. China); Jie Zhang (Beijing University of Posts and Telecommunications, P.R. China)

Software Defined Clustered-Optical Access Networking for Ubiquitous Data Center Optical Interconnection

Hui Yang (Beijing University of Posts and Telecommunications (BUPT), P.R. China); Jie Zhang (Beijing University of Posts and Telecommunications, P.R. China); Yongli Zhao (Beijing University of Posts and Telecommunications, P.R. China); Ji Yuefeng (Beijing University of Posts and Telecommunications, P.R. China); Young Lee (Huawei Technologies Co., Ltd, USA)

CAPEX Optimization in Multi-Chassis Multi-Rate IP/Optical Networks

Mohammad Sheikh Zefreh (University of Toronto & TELUS, Canada); Ali Tizghadam (University of Toronto, Canada); Halima Elbiaze (University of Quebec at Montreal, Canada); Alberto Leon-Garcia (University of Toronto, Canada); Walter Miron (TELUS, Canada)

Defragmentation Algorithm for Joint Dynamic and Static Routing Problems in Elastic Optical Networks with Unicast and Anycast Traffic

Michał Aibin (Wroclaw University Of Technology & Simon Fraser University, Poland); Krzysztof Walkowiak (Wroclaw University of Technology, Poland)

Integrating 'State of the Network' Information into Impairment Model using Binary Logic Operators

Maninder Singh and Maninder Lal Singh (Guru Nanak Dev University, Amritsar, India)

Sigma-Delta PWM waveforms for optical front-hauling

Lorenzo Combi (DEIB Politecnico di Milano, Italy); Umberto Spagnolini (Politecnico di Milano, Italy)

Ethernet signal transmission via VLC lighting LED link in a real network

Jerzy Siuzdak, Lukasz Maksymiuk and Piotr Zwierko (Warsaw University of Technology, Poland)

CNC VIII: Network Algorithms and Emerging Mobile Applications

Room: Koloa III

Chair: Chung-An Shen (National Taiwan University of Science and Technology, Taiwan)

Ergodic Capacity-based Energy Optimization Algorithm in Massive MIMO Systems

Peng Kou, Xiaohui Li, Ruohan Guo and Yongqiang Hei (Xidian University, P.R. China)

Tree Search Based Configurable Joint Detection and Decoding Algorithms for MIMO Systems

Chien-Hao Huang, Chia-Po Yu and Chung-An Shen (National Taiwan University of Science and Technology, Taiwan)

Controller placement algorithm to alleviate burdens on communication nodes

Genya Ishigaki and Norihiko Shinomiya (Soka University, Japan)

A Queue-length Based Distributed Scheduling for CSMA-driven Wireless Mesh Networks

Toshiki Takeda and Takuya Yoshihiro (Wakayama University, Japan)

Proactive Ethernet Congestion Control Based on Link utilization Estimation

Mahmoud Bahnasy (École de Technologie Supérieure (ÉTS) & Université du Québec à Montréal (UQAM), Canada); Bochra Boughzala (Ericsson Research, Canada); Halima Elbiaze (University of Quebec at Montreal, Canada); Brian Alleyne (Ericsson, USA); André Béliveau (Ericsson Canada, Canada); Chakri Padala (Ericsson, India)

Cloud-based Community Services in Community Networks

Felix Freitag (Technical University of Catalonia, Spain); Roger Baig (Fundació Privada per a la Xarxa Oberta, Lliure i Neutral Guifi.net, Spain); Agusti Moll (Guifi.net, Spain); Leandro Navarro (Universitat Politècnica de Catalunya, Spain); Roger Pueyo Centelles (Fundació Privada per a la Xarxa Oberta, Lliure i Neutral Guifi.net, Spain); Vladimir Vlassov (KTH Royal Institute of Technology, Sweden)

Twitter Structure as a Composition of Two Distinct Networks

Meng Tong and Ameya M Sanzgiri (University at Buffalo, USA); Dimitrios Koutsonikolas (University at Buffalo, SUNY, USA); Shambhu Upadhyaya (University at Buffalo, USA)

Smart and Connected e-Health Lab for Standards Validation and Conformance

Wei Liu (Georgia Gwinnett College, USA); Ek Park (CSU-Chico, USA); Udo R. Krieger (Otto-Friedrich-University Bamberg, Germany); Shi-sheng Zhu (Shantou University, Shantou Guangdong, P.R. China)

Tuesday, February 16

Tuesday, February 16, 08:30 - 09:30

Keynote Talk: From Pixels to Information - Recent Advances in Visual Search

Speaker: Bernd Girod, Stanford, USA

Room: Poipu I

Chair: Linda Jiang Xie (University of North Carolina at Charlotte, USA)

Tuesday, February 16, 10:00 - 12:00

B1: Invited Talks I

Room: Poipu I

Chair: Zhu Han (University of Houston, USA)

Robust Mobile Healthcare System Design

Mooi Choo Chuah (Lehigh University, USA)

5G Today: Modulation Technique Alternatives

Ender Ayanoglu (University of California, Irvine, USA)

Application of Data Analytics: Security and Privacy in Social Networks

Yang Xiang (Deakin University, Australia)

B2: Invited Talks II

Room: Poipu II

Chair: Victor C.M. Leung (The University of British Columbia, Canada)

Frontiers in Networks

Vincent Chan (Massachusetts Institute of Technology, USA)

Oblivious Network Routing: Algorithms and Applications

Sitharama Iyengar (Florida International University, USA)

COBANETS: A New Paradigm For Cognitive Communications Systems

Michele Zorzi (Università degli Studi di Padova, Italy); Andrea Zanella, Alberto Testolin, Michele De Filippo De Grazia and Marco Zorzi (University of Padova, Italy)

On System-Level Analysis & Design of Heterogeneous Ultra Dense Cellular Networks: The Magic of Stochastic Geometry and the Renaissance of Communication Theory

Marco Di Renzo (French National Center for Scientific Research (CNRS), France)

CIS: Communications and Information Security

Room: Poipu III

Chair: Eleanor Leung (McMaster University, Canada)

Randomized Positioning DSSS for Anti-Jamming Wireless Communications

Ahmad Alagil, Meshari Alotaibi and Yao Liu (University of South Florida, USA)

Analysis and Characterisation of Botnet Scan Traffic

Angelos K. Marnierides (Liverpool John Moores University, United Kingdom); Andreas U. Mauthe (Lancaster University, United Kingdom)

Watermarking for Detecting Freeloader Misbehavior in Software-Defined Networks

Younghee Park (San Jose State University, USA); Sang-Yoon Chang (Advanced Digital Sciences Center (ADSC), Singapore); Lavanya Krishnamurthy (San Jose State University, USA)

Two for the price of one: A combined browser defense against XSS and clickjacking

Sudhakar Rao, Naman Jain, Nikhil Limaje, Mridul Jain, Abhilash Gupta and Bernard Menezes (IIT Bombay, India)

Match-MORE: An Efficient Private Matching Scheme Using Friends-of-Friends' Recommendation

Fenghua Li, Yuanyuan He and Ben Niu (State Key Laboratory of Information Security, Institute of Information Engineering, CAS, P.R. China); Hui Li (Xidian University, P.R. China); Hanyi Wang (University of Science and Technology of China, P.R. China)

Network Security Analyzing and Modeling based on Petri net and Attack tree for SDN

Linyuan Yao (Beijing JiaoTong University, P.R. China); Ping Dong, Tao Zheng and Hongke Zhang (Beijing Jiaotong University, P.R. China); Xiaojiang Du (Temple University, USA); Mohsen Guizani (QU, USA)

CLD: Cloud Computing and Big Data

Room: Koloa III

Chair: Yenumula B Reddy (Grambling State University, USA)

Achieving Lightweight, Time-Specific and Secure Access Control in Cloud Storage

Yanchao Wang, Fenghua Li and Ben Niu (State Key Laboratory of Information Security, Institute of Information Engineering, CAS, P.R. China); Rongna Xie (Beijing Electronic Science and Technology Institute, P.R. China)

Latent Fingerprint Matching in Large Databases Using High Performance Computing

Yenumula B Reddy (Grambling State University, USA)

CloudPDB: A Light-weight Data Privacy Schema for Cloud-based Databases

Mehdi Bahrami (University of California Merced, USA); Mukesh Singhal (University of California at Merced, USA)

Frequency-Minimal Moving Target Defense using Software-Defined Networking

Saptarshi Debroy, Prasad Calyam and Minh Nguyen (University of Missouri-Columbia, USA); Allen Stage (Humboldt State University, USA); Vladimir Georgiev (Southeast Missouri State University, USA)

Selective Encryption and Component-Oriented Deduplication for Mobile Cloud Data Computing

Sejun Song (University of Missouri Kansas City, USA); Baek-Young Choi (University of Missouri - Kansas City, USA); Daehee Kim (University of Missouri-Kansas City, USA)

A Light-Weight Forwarding Plane for Content Centric Networks

JJ Garcia-Luna-Aceves (University of California at Santa Cruz & Palo Alto Research Center, USA); Maziar Mirzazad Barijough (University of California, Santa Cruz, USA)

CQSM: Communication QoS and System Modeling

Room: Koloa I/II

Chair: Yenumula B Reddy (Grambling State University, USA)

Modeling 3D video traffic using a Markov Modulated Gamma Process

Savera Tanwir (NC State University, USA); Debanjana Nayak and Harry Perros (North Carolina State University, USA)

A New Highly Accurate Workload Model for Campus Email Traffic

Spyros Boukoros (Technical University of Darmstadt, Germany); Athina Kalampogia (Technical University of Crete, Greece); Polychronis Koutsakis (Murdoch University, Australia)

Optimal Context-Aware Resource Allocation in Cellular Networks

Ahmed Abdelhadi and T. Charles Clancy (Virginia Tech, USA)

Hierarchical Traffic Engineering Based on Model Predictive Control

Tatsuya Otsu, Yuichi Ohsita and Masayuki Murata (Osaka University, Japan); Yousuke Takahashi, Keisuke Ishibashi and Kohei Shiimoto (NTT, Japan); Tomoaki Hashimoto (Osaka Institute of Technology, Japan)

Packet Delay, Loss and Reordering in IPv6 World: A Case Study

Fuliang Li and Xingwei Wang (Northeastern University, P.R. China); Tian Pan and Jiahai Yang (Tsinghua University, P.R. China)

Information Service Pricing Competition in Internet-of-Vehicle (IoV)

Hoang Thai Dinh and Dusit Niyato (Nanyang Technological University, Singapore)

Tuesday, February 16, 13:30 - 14:30

Plenary Talk: Learning Tools for Big Data Analytics

Speaker: Georgios B. Giannakis, University of Minnesota, USA

Room: Poipu I

Chair: Liuqing Yang (Colorado State University, USA)

Tuesday, February 16, 14:30 - 15:30

Plenary Talk: Achieving Resilience via Continuous Monitoring and Deep Analytics

Speaker: Ravishankar K. Iyer, University of Illinois, USA

Room: Poipu I

Chair: Linda Jiang Xie (University of North Carolina at Charlotte, USA)

Tuesday, February 16, 16:00 - 18:00

B3: Invited Talks III

Room: Poipu I

Chair: Marco Di Renzo (French National Center for Scientific Research (CNRS), France)

Consideration on Future Network - Towards Realization of Real ICT

Toshitaka Tsuda (Waseda University & Formerly Fujitsu, Japan)

Smart Video Streaming Based on User Behavior Analysis

Dah Ming Chiu (The Chinese University of Hong Kong, Hong Kong)

Users Association in Small Cell Networks with Massive MIMO

Radwa Aly Sultan (University of Houston, USA); Lingyang Song (Peking University, P.R. China); Karim G Seddik (American University in Cairo, Egypt); Zhu Han (University of Houston, USA)

B4: Invited Talks IV

Room: Poipu II

Chair: Kenichi Mase (Niigata University, Japan)

How to Build a Green Internet

Rodney S Tucker (University of Melbourne, Australia)

Green Internet of Things

Victor C.M. Leung (The University of British Columbia, Canada)

Future Distributed Applications Based on Mobile Cloud Computing and Software-Defined Networks

Sergey Gorlatch (University of Munster, Germany)

Concurrent-MAC: Increasing Concurrent Transmissions in Dense Wireless LANs

Ghazale Hosseinabadi and Nitin Vaidya (University of Illinois at Urbana-Champaign, USA)

CIS & WCS: Communications and Information Security & Wireless Communications Symposium

Room: Poipu III

Chair: Bo Sheng (University of Massachusetts Boston, USA)

Design of Uniquely Factorable Hexagonal Constellations for Noncoherent SIMO Systems

Jian-Kang Zhang and Eleanor Leung (McMaster University, Canada)

Performance Bounds for MRC and SC Over Nakagami-m Fading Channels With Arbitrary Correlation

Bingcheng Zhu (Southeast University, P.R. China); Fan Yang and Julian Cheng (University of British Columbia, Canada); Lenan Wu (Southeast University, P.R. China)

Privacy-Aware Mobile Sensing in Vehicular Networks

Mingming Guo, Niki Pissinou and Sitharama Iyengar (Florida International University, USA)

Protection of Location Privacy in Continuous LBSs against Adversaries with Background Information

Ben Niu (State Key Laboratory of Information Security, Institute of Information Engineering, CAS, P.R. China); Sheng Gao (Central University of Finance and Economics, P.R. China); Fenghua Li (State Key Laboratory of Information Security, Institute of Information Engineering, CAS, P.R. China); Hui Li (Xidian University, P.R. China); Zongqing Lu (The Pennsylvania State University, USA)

How to Enhance the Immunity of LTE Systems against RF Spoofing

Mina Labib, Vuk Marojevic and Jeffrey Reed (Virginia Tech, USA); Amir Zaghloul (Virginia Polytechnic Institute and State University, USA)

BAN-Trust: An Attack-Resilient Malicious Node Detection Scheme for Body Area Networks

Wenjia Li (New York Institute of Technology, USA); Xianshu Zhu (Dataminr, Inc., USA)

COG & OGN: Cognitive Computing and Networking & Optical and Grid Networking

Room: Koloa III

Chairs: Paolo Monti (KTH Royal Institute of Technology, Sweden), Yenumula B Reddy (Grambling State University, USA)

Connectivity and Rendezvous in Distributed DSA Networks

Osama A.H. Al-Tameemi, Ayad Al-Rumaithi and Mainak Chatterjee (University of Central Florida, USA); Kevin Kwiat (Air Force Research Laboratory, USA); Charles A Kamhoua (Air Force Research Laboratory & Information Directorate, USA)

QoE-Based Resource Allocation for Mixed Services over Cognitive Radio Networks

Bin Liu and Lei He (University of Science and Technology of China, P.R. China)

Cooperative Cognitive Radio Network with Energy Harvesting: Stability Analysis

Ramy Amer (NTI of Egypt, Egypt); Amr El-Sherif (Alexandria University, Egypt); Hanaa Abd El Aziz Ebrahim (National Telecom. Institute, Egypt); Amr Mokhtar (Egypt, Egypt)

Mixed Signal Detection and Carrier Frequency Estimation based on Spectral Coherent Features

Dong Li (Wright State University, USA); Lin Zhang (Sun Yat-sen University & SYSU-CMU Shunde International Joint Research Institute, P.R. China); Zhiqiang Liu (Naval Research Laboratory, USA); Zhiqiang Wu and Zhiping Zhang (Wright State University, USA)

Recent Results on Correlated Lognormal Atmospheric Turbulence Channels

Fan Yang and Julian Cheng (University of British Columbia, Canada)

Routing and Spectrum Assignment for 1+1:1 Lightpath Services in Elastic Optical Networks

Hong Guo and Gangxiang Shen (Soochow University, P.R. China); Sanjay Kumar Bose (I.I.T. Guwahati, India)

WCS I: Wireless Communications Symposium

Room: Koloa I/II

Chairs: Zribi Amin (Higher Institute of Communication Technology & Telecom Bretagne, Tunisia), Dexin Wang (Colorado State University, USA)

Optimal Power Allocation for Energy Harvesting Cognitive Radio Networks with Primary Rate Protection

Hui Liang and Xiaohui Zhao (Jilin University, P.R. China)

System-level simulations for multi-hop D2D communications overlay LTE networks

Lili Wei (Intel Corporation, USA); Apostolos Papatthanassiou (Intel Corporation & Intel Platform Engineering Group, USA); Clara (Qian) Li and Geng Wu (Intel Corporation, USA)

Lifetime Maximization via Optimal Coordinator Deployment for Wireless Body Area Network

Feng Wang, Fengye Hu, Wei Xiong and Shanshan Wang (Jilin University, P.R. China)

Traffic-Aware Backoff Design for IEEE 802.11(ac)

Chun-Hao Liu (University of California, Los Angeles, USA); Danijela Cabric (University of California Los Angeles, USA)

Resource Allocation for Relay-aided OFDMA Networks with Constraints on Queue Stability

Sara Lakani and Francois Gagnon (Ecole de Technologie Superieure, Canada)

Energy-Efficient Mobile Association in Device-to-Device-Enabled Heterogeneous Networks

Sa Xiao (University of Electronic Science and Technology of China, P.R. China); Xiangwei Zhou (Louisiana State University, USA); Daquan Feng (Singapore University of Technology and Design, Singapore); Yi Yuan-Wu (Orange Labs, France); Geoffrey Li (Georgia Tech, USA); Guo Wei (National Communication Technology Key LAB, P.R. China)

Wednesday, February 17

Wednesday, February 17, 08:30 - 09:30

Keynote Talk: Once and Future Internet of Everything

Speaker: David E. Culler, University of California, Berkeley, USA

Room: Poipu I

Chair: Linda Jiang Xie (University of North Carolina at Charlotte, USA)

Wednesday, February 17, 10:00 - 12:00

Plenary Theme Forum: Machine Intelligence Innovations for Future Smart Life

Speakers: Li Deng, Partner Research Manager, Microsoft Research, USA (IEEE/ASA/ISCA Fellow); Panos Nasiopoulos, Professor, University of British Columbia, Canada (CAE Fellow); Andreas Savakis, Professor, Rochester Institute of Technology, USA; Anthony Vetro, Deputy Director, Mitsubishi Electric Research Labs, USA (IEEE Fellow) ; Michael Wei, Director, Huawei, USA; Khaled El-Maleh, Senior Director, Qualcomm, USA

Room: Poipu I

Chair: Khaled El-Maleh (Qualcomm Inc., USA)

Wednesday, February 17, 13:30 - 14:30

Plenary Talk: Device-to-Device Communications in Cellular Networks

Speaker: Geoffrey Li, Georgia Institute of Technology, USA

Room: Poipu I

Chair: Linda Jiang Xie (University of North Carolina at Charlotte, USA)

Wednesday, February 17, 14:30 - 15:30

Plenary Talk: Minimizing Data Retrieval Latency in Cloud Storage Systems

Speaker: Ness B. Shroff, Ohio State University, USA

Room: Poipu I

Chair: Linda Jiang Xie (University of North Carolina at Charlotte, USA)

Wednesday, February 17, 16:00 - 18:00

B5: Invited Talks V

Room: Poipu I

Chair: Rodney S Tucker (University of Melbourne, Australia)

Distributed Antenna Cooperative Signal Transmissions for 5G Network

Fumiyuki Adachi (Tohoku University, Japan)

A Stochastic Analysis of Network MIMO Systems

Wei Yu (University of Toronto, Canada)

Cross-Technology Wireless Communication

Tian He (University of Minnesota, USA)

Identification of Cognitive Radio Terminals and Malicious Users

Yu-Dong Yao (Stevens Institute of Technology, USA)

MCC & ISA: Multimedia Computing and Communications & Internet Services and Applications

Room: Koloa III

Chair: Fenghua Li (State Key Laboratory of Information Security, Institute of Information Engineering, CAS, P.R. China)

Flow Embedding in the Data Plane of Multimedia IP Communications

Lilin Zhang, Ali Tizghadam, Hadi Bannazadeh and Alberto Leon-Garcia (University of Toronto, Canada)

A Novel Metadata Extraction Method for Surveillance Video

Ran Zheng, Long Chen, Hai Jin, Lei Zhu and Qin Zhang (Huazhong University of Science and Technology, P.R. China)

On the Scalability and Effectiveness of a Cache Pollution based DoS Attack in Information Centric Networks

Jeffery Gouge (University of North Florida, USA); Anand Seetharam (California State University Monterey Bay, USA); Swapnoneel Roy (University of North Florida, USA)

Fighting Fire with Fire: Eliminating Standing Queues with Large UDP Packet Floods

Michael Welzl (University of Oslo, Norway); Stein Gjessing (University of Oslo & Simula Research Lab., Norway); Haakon Jahre (University of Oslo, Norway)

Performance Considerations of Network Functions Virtualization using Containers

Jason Anderson, Udit Agarwal, Hongda Li and Hongxin Hu (Clemson University, USA); Craig Lowery (Dell, USA); Amy Apon (Clemson, USA)

OGN: Optical and Grid Networking

Room: Poipu II

Chair: Gangxiang Shen (Soochow University, P.R. China)

Progressive Recovery For Network Virtualization After Large-Scale Disasters

Mahsa Pourvali (USF, USA); Kaile Liang and Feng Gu (University of New Mexico, USA); Hao Bai (University of South Florida, USA); Khaled Bashir Shaban (Qatar University & College of Engineering, Qatar); Samee U. Khan (North Dakota State University, USA); Nasir Ghani (University of South Florida, USA)

QoT-aware Multicast Provisioning Using Column Generation in Mixed-Line-Rate Optical Networks

Fen Zhou, Amine Ait Ouahmed and Azeddine Cheref (University of Avignon, France)

Minimum Cost Deployment of Radio and Transport Resources in Centralized Radio Architectures

Federico Tonini (Università di Bologna, Italy); Matteo Fiorani, Marija Furdek and Lena Wosinska (KTH Royal Institute of Technology, Sweden); Carla Raffaelli (University of Bologna, Italy); Paolo Monti (KTH Royal Institute of Technology, Sweden)

Incorporating Network Coding to Formulate Multicast Sessions in Elastic Optical Networks

Lulu Yang, Long Gong and Zuqing Zhu (University of Science and Technology of China, P.R. China)

Demonstration of Multi-Domain Spectrum Defragmentation with Minimum Controller-Participation Degree in Elastic Optical Networks

Yajie Li, Yongli Zhao, Jie Zhang and Xiaosong Yu (Beijing University of Posts and Telecommunications, P.R. China); Guoying Zhang (China Academy of Information and Communication Technology, P.R. China); Yina Song and Guangbin Li (Beijing University of Posts and Telecommunications, P.R. China)

Optical Power Control to Efficiently Handle Flex-Grid Spectrum Gain over Existing Fixed-Grid Networks Infrastructures

Mohamad Kanj (B-com, France); Esther Le Rouzic (Orange Labs, France); Djamel Amar (Institut Mines-Télécom/Telecom SudParis & Orange Labs, France); Jean-Luc Auge (Orange Labs, France); Bernard Cousin (University of Rennes 1 & IRISA Research Laboratory, France); Nicolas Brochier (Orange Labs, France)

WCS II: Wireless Communications Symposium

Room: Koloa I/II

Chair: Yu Cheng (Illinois Institute of Technology, USA)

Secrecy-Throughput-Optimal Artificial Noise Design Against Randomly Located Eavesdroppers

Tong-Xing Zheng (Xi'an Jiaotong University, P.R. China); Hui-Ming Wang, Rui Huang and Pengcheng Mu (Xi'an Jiaotong University, P.R. China)

Diversity of distributed linear convolutive space-time codes on fast fading Rayleigh channels

Yi Liu (Xidian University, P.R. China); Bo Pang (School of Telecommunications Engineering, P.R. China); Yue Zhang and Ce Kang (Xidian University, P.R. China)

Joint Source-Channel Decoding for LDPC-coded Error-Corrupted Binary Markov Sources

Zribi Amin (Higher Institute of Communication Technology & Telecom Bretagne, Tunisia); Tad Matsumoto (Japan Advanced Institute of Science and Technology, Japan); Ramesh Mahendra Pyndiah (Institut Telecom/TELECOM Bretagne, France)

Optimal User Association and Resource Allocation for Device-to-Device Communications Underlying Cellular Networks

Liping Qian, Yuan Wu and Liang Huang (Zhejiang University of Technology, P.R. China); Wei Zhang (The University of New South Wales, Australia)

Multi-Objective Beamforming for Energy-Efficient SWIPT Systems

Shiyang Leng (The Pennsylvania State University, USA); Derrick Wing Kwan Ng (University of New South Wales, Australia); Nikola Zlatanov (Monash University, Australia); Robert Schober (University of British Columbia, Canada)

Estimating Cross-Channel Gain without Using Backhaul Link in Two-Tier Heterogeneous Networks

Xiaoning Huang (University of Electronic Science and Technology of China (UESTC), P.R. China); Liying Li (University of Electronic Science and Technology of China, P.R. China); Guodong Zhao (University of Electronic Science and Technology of China (UESTC), P.R. China); Zhi Chen (University of Electronic Science and Technology of China & University of California, Riverside, P.R. China)

WN: Wireless Networks

Room: Poipu III

Chair: Gustavo Vejarano (Loyola Marymount University, USA)

OUS: Optimal User Selection in MU-MIMO WLAN

Yizirui Zhou, Anfu Zhou and Min Liu (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China)

An Empirical Characterization of Cellular Network Performance

Anand Seetharam and Peter Walker (California State University Monterey Bay, USA)

Public Scene Recognition Using Mobile Phone Sensors

Shuang Liang and Xiaojiang Du (Temple University, USA); Ping Dong (Beijing Jiaotong University, P.R. China)

MobiVPN: A Mobile VPN Providing Persistency To Applications

Abdullah Alshalan, Sandeep Pisharody and Dijiang Huang (Arizona State University, USA)

AP MATRIX: A New Access Point Architecture for Reliable Public Wi-Fi Services

Zhe Fu, Xiaohe Hu, Xiang Wang, Chang Chen and Jun Li (Tsinghua University, P.R. China)

Detection and Mitigation of Signaling Storms in Mobile Networks

Erol Gelenbe, Omer H. Abdelrahman and Gokce Gorbil (Imperial College London,
United Kingdom)

Thursday, February 18

Thursday, February 18, 08:30 - 09:30

Keynote Talk: Learning for Media Computing

Speaker: Aggelos Katsaggelos, Northwestern University, USA

Room: Poipu I

Chair: Linda Jiang Xie (University of North Carolina at Charlotte, USA)

Thursday, February 18, 10:00 - 12:00

A4: Distinguished Lecture - Deep Learning: Propelling Recent Rapid Advances in Artificial Intelligence

Speaker: Li Deng, Microsoft Research, USA

Room: Poipu I

Chair: Linda Jiang Xie (University of North Carolina at Charlotte, USA)

B6: Invited Talks VI

Room: Poipu II

Chair: Tian He (University of Minnesota, USA)

Can Wi-Fi and LTE Coexist Fairly in Unlicensed Spectrum?

Monisha Ghosh (University Of Chicago, USA)

Creation of Information & Communication Services based on Intelligent Transport System

Kenichi Mase (Niigata University, Japan)

CTP-WUR: The Collection Tree Protocol in Wake-up Radio WSNs for Critical Applications

Stefano Basagni (Northeastern University, USA); Chiara Petrioli and Dora Spenza (University of Rome "La Sapienza", Italy)

Modeling and Analysis of Coexisting Multiple Radio Access Technologies in Heterogeneous Wireless Networks

Li-Chun Wang and Chun-Hung Liu (National Chiao Tung University, Taiwan)

MCVC I: Mobile Computing and Vehicle Communications

Room: Koloa I/II

Chair: Deli Qiao (East China Normal University, P.R. China)

Peek: A Mobile-to-Mobile Remote Computing Protocol For Smartphones and Tablets

Uma Parthavi Moravapalle (Georgia Institute Of Technology, USA); Raghupathy Sivakumar (Georgia Institute of Technology, USA)

Collaboration over IEEE 802.11P to enable an Intelligent Traffic Light Function for Emergency Vehicles

Oliver Sawade (Fraunhofer FOKUS, Germany); Bernd Schäufele (Technische Universität Berlin, Germany); Ilja Radusch (Fraunhofer FOKUS & Daimler Center for Automotive IT Innovations (DCAITI), Germany)

An Exact Performance Analysis for Mobile Communications over Generalized Fading Channels

Osamah S. Badarneh and Ibrahim E. Atawi (University of Tabuk, Saudi Arabia); Mohammed Aloqlah (Yarmouk University, Jordan)

Quadrature Index Modulated OFDM for Vehicular Communications

Xiaotian Zhou (Shandong University, P.R. China); Xiang Cheng (Peking University, P.R. China); Liuqing Yang (Colorado State University, USA)

Sum of Arbitrarily Correlated Gamma Random Variables with Unequal Parameters and Its Application in Wireless Communications

Yizhi Feng, Miaowen Wen, Jun Zhang, Fei Ji and Geng-xin Ning (South China University of Technology, P.R. China)

Novel Signal Reconstruction Method for SC-FDE Systems with Frequency Domain Pilot Multiplexing Technique over Time-Varying Channels

Beixiong Zheng, Miaowen Wen, Fang-Jiong Chen, Fei Ji, Quansheng Guan and Hua Yu (South China University of Technology, P.R. China)

SCSD: Social Computing and Semantic Data Mining

Room: Koloa III

Chairs: Anand Seetharam (California State University Monterey Bay, USA), Miaowen Wen (South China University of Technology, P.R. China)

Personalized Pre-trust Reputation Management in Social P2P Network

Mingchu Li (School of Software, Dalian University of Technology, P.R. China);
Quanhua Guan (Dalian University of Technology, P.R. China); Xing Jin (School of
Software Technology, Dalian University of Technology, P.R. China); Cheng Guo
(School of Software Technology, Dalian University of Technology, Dalian, Liaoning,
P.R. China); Xing Tan (School of Information Technology, York University Toronto,
Canada); Yongli Gao (Seventh School of Liaoyang, Liaoning, P.R. China)

ESammon: A Computationaly Enhanced Sammon Mapping

Chanpaul Jin Wang (UMass Medical School, USA); Hua Fang (UMass Medical, USA);
Honggang Wang (University of Massachusetts, Dartmouth & College of Engineering,
USA)

On Social Network Firewall Selection

Anisha Mazumder (Arizona State University, USA); Arunabha Sen (ASU, USA)

WAHS: Wireless Ad Hoc and Sensor Networks

Room: Poipu III

Chair: Hyunbum Kim (University of North Carolina at Wilmington, USA)

Protecting Sink Location Against Global Traffic Monitoring Attacker

Juan Chen and Zheng kui Lin (Dalian Maritime University, P.R. China); Xiaojiang Du
(Temple University, USA)

***LiREP: Lightweight Incremental Reprogramming of Sensor Nodes Based On In-situ
Modification***

Jiefan Qiu, Liang Huang and Liping Qian (Zhejiang University of Technology, P.R.
China)

***Prediction of Received Signal Strength from Human Joint Angles in Body Area
Networks***

Thang Tran and Gustavo Vejarano (Loyola Marymount University, USA)

***Localization in Heterogeneous Wireless Sensor Networks Using Elliptical Range
Estimation***

Mehdi Golestanian and Christian Poellabauer (University of Notre Dame, USA)

CASPaR: Congestion Avoidance Shortest Path Routing for Delay Tolerant Networks

Michael Stewart and Rajgopal Kannan (Louisiana State University, USA); Amit Dvir (Ariel University Center of Samaria, Israel); Bhaskar Krishnamachari (University of Southern California, USA)

Evaluation of a Radio Signal as a Time Reference Beacon for Wireless Sensor Networks

Meriel Huggard, Ciaran Mc Goldrick and Alessandro Vaccaro (Trinity College Dublin, Ireland)

Thursday, February 18, 13:30 - 15:30

A5: Distinguished Lecture - The internet of things meets sustainable power delivery

Speaker: Anna Scaglione, Arizona State University, USA

Room: Poipu I

Chair: Tian He (University of Minnesota, USA)

MCVC II: Mobile Computing and Vehicle Communications

Room: Koloa I/II

Chair: Xiaotian Zhou (Shandong University, P.R. China)

Modified PEG Algorithm for Large Girth Quasi-Cyclic Protograph LDPC Codes

Xueqin Jiang (Donghua University, P.R. China); Huiming Wang (Xi'an Jiaotong University, P.R. China); Jun Li (Chonbuk National University, Korea); Miaowen Wen (South China University of Technology, P.R. China); Moon Ho Lee (Chonbuk National University, Korea)

Information-Centric VANETs: A Study Of Content Routing Design Alternatives

Yu-Ting Yu (Qualcomm Research, USA); Mario Gerla (University of California at Los Angeles, USA)

Index Modulated OFDM with ICI Self-Cancellation for V2X Communications

Yuke Li (Institute of Automation, Chinese Academy of Sciences, P.R. China); Miaowen Wen (South China University of Technology, P.R. China); Xiang Cheng (Peking University, P.R. China); Liuqing Yang (Colorado State University, USA)

Spatial Modulation Orthogonal Frequency Division Multiplexing with Subcarrier Index Modulation for V2X Communications

Yingtao Liu and Meng Zhang (Peking University, P.R. China); Haowen Wang (Shanghai Research Center for Wireless Communications, P.R. China); Xiang Cheng (Peking University, P.R. China)

Urban Intelligent Parking System Based on the Parallel Theory

Fei-Yue Wang (Institute of Automation, Chinese Academy of Science, P.R. China); Liuqing Yang (Colorado State University, USA); Jian Yang (Institute of Automation, Chinese Academy of Science, P.R. China); Yanli Zhang (Qingdao Academy of Intelligent Industries, P.R. China); Shuangshuang Han (Institute of Automation, Chinese Academy of Sciences, P.R. China); Kai Zhao (Institute of Automation, Chinese Academy of Science, P.R. China)

Geometry-based Path Loss Model for High-speed-train Environments in LTE-A Networks

Xiaokang Ye (Tongji University, P.R. China); Xuesong Cai (Tongji University, P.R. China); Yu Shen (Institute of Automation, Chinese Academy of Science, P.R. China); Xuefeng Yin (Tongji University, P.R. China); Xiang Cheng (Peking University, P.R. China)

NAPE: Network Algorithms and Performance Evaluation

Room: Koloa III

Chair: Xianfeng Li (Peking University, P.R. China)

A Practical Approach for Network Fault Detection

Yuncheng Zhu, Hideki Okita and Seishi Hanaoka (Hitachi, Ltd., Japan)

Towards a realistic model for failure propagation in interdependent networks

Agostino Sturaro (University of Padua, Italy); Simone Silvestri (Missouri University of Science and Technology, USA); Mauro Conti (University of Padua, Italy); Sajal K. Das (Missouri University of Science and Technology, USA)

Designing Cascade-Resilient Interdependent Networks by Optimum Allocation of Interdependencies

Mahshid Rahnamay Naeini (Texas Tech University, USA)

Power Monitoring of Highly Parallel Network Processors

Christopher Mansour and Danai Chasaki (Villanova University, USA)

WAHS & WN: Wireless Ad Hoc and Sensor Networks & Wireless Networks

Room: Poipu III

Chair: Anand Seetharam (California State University Monterey Bay, USA)

Event-driven Partial Barriers in Wireless Sensor Networks

Hyunbum Kim (University of North Carolina at Wilmington, USA); Junggab Son (North Carolina Central University, USA); Hyung Jae Chang (Troy University - Montgomery, USA); Heekuck Oh (Hanyang University, Korea)

A Low-Complexity Cooperative Algorithm for Robust Localization in Wireless Sensor Networks

Dexin Wang and Liuqing Yang (Colorado State University, USA); Xiang Cheng (Peking University, P.R. China)

Routing and Optimal Hop Distance in Wireless Ad Hoc Networks

Yin xiang Qu (Beijing University of Posts and Telecommunications(BUPT), P.R. China); Yang Liu, Li Wang and Mei Song (Beijing University of Posts and Telecommunications, P.R. China)

Mobile Message Board: Location-based Message Dissemination in Wireless Ad-Hoc Networks

Ying Mao, Jiayin Wang and Bo Sheng (University of Massachusetts Boston, USA)

An Optimal Resource Allocation with Frequency Reuse in Cellular Networks

Ahmed Abdelhadi and T. Charles Clancy (Virginia Tech, USA)

A Game Theoretical Approach to Coexistence of Heterogeneous MIMO Wireless Networks with Interference Cancellation

Yantian Hou (USU, USA); Ming Li (University of Arizona, USA); Dejun Yang (Colorado School of Mines, USA)

Thursday, February 18, 16:00 - 18:00

GCNC: Green Computing, Networking and Communications

Room: Poipu III

Chairs: Mahshid Rahnamay Naeini (Texas Tech University, USA), Simone Silvestri (Missouri University of Science and Technology, USA)

On the Effects of Battery Imperfections in an Energy Harvesting Device

Alessandro Biazon and Michele Zorzi (Università degli Studi di Padova, Italy)

Optimal Power Allocation in Dispersed Cognitive Radio Systems with Carrier Aggregation

Fotis Foukalas and Tamer Khattab (Qatar University, Qatar)

GreenTCAM: A Memory- and Energy-efficient TCAM-based Packet Classification

Xianfeng Li, Yuanxin Lin and Wenjun Li (Peking University, P.R. China)

Real-Time Energy Price-Aware Anycast RWA in Optical Data Center Networks

Arash Deylamsalehi, Pegah Afsharlar and Vinod M. Vokkarane (University of Massachusetts Lowell, USA)

SPC: Signal Processing for Communications

Room: Poipu II

Chair: Gustavo Vejarano (Loyola Marymount University, USA)

Channel Prediction Using Compressed Sensing in Multi-User MIMO Systems

Shunsuke Uehashi, Yasutaka Ogawa, Toshihiko Nishimura and Takeo Ohgane (Hokkaido University, Japan)

Multi-Pass Joint Viterbi Detector Decoder (MP-JVDD) over AWGN/ISI Channels

Ashish James (Data Storage Institute, A*STAR, Singapore); Kheong Sann Chan (Data Storage Institute, Singapore)

On the Design of Broadbeam for Massive MIMO Systems

Deli Qiao and Haifeng Qian (East China Normal University, P.R. China); Geoffrey Li (Georgia Tech, USA)

Improved Trellis-Based Decoder for Non-Binary LDPC Codes

Sangmin Kim (Samsung Electronics, Korea)

Performance Study of Decode and Forward based Multi-Hop Relaying in Wireless Networks Over Extended Generalized-K Fading Channels

Mohammed Aloqlah and Firas Nawafleh (Yarmouk University, Jordan)