14:00 – 15:10 SESSIONS (continued)

Cloud Services and Networking III / Sunset 1
- Scalable Point-to-multipoint Communication for Cloud Networking using Information-centric Networking
- CoMon: An Architecture for Coordinated Caching and Cache-Aware Routing in CCN
- Efficient Privacy-Preserving Multi-keyword Ranked Search Utilizing Document Replication and Partition

Social, P2P and Multimedia Networking, Services and Applications III / Wilshire B
- A Highly-Reliable Buffer Strategy Based on Long-Term Throughput Prediction for Mobile Video Streaming
- Video Complexity Hybrid Traffic Shaping for HTTP Adaptive Streaming
- Incentive-Based On-Demand Video Streaming Using a Dual Spatially-Organized Peer-to-Peer Network

15:10 – 15:30 NETWORKING COFFEE BREAK / Sunset Foyer

15:30 – 16:40 SESSIONS

Wireless Communications V / Sunset 5
- Adaptive Relay Selection with Energy and Channel Information in Energy Harvesting WSNs
- Vehicular Networking and Channel Modeling: A New Markovian Approach
- Hard and Soft Optimal Resource Allocation for Primary and Secondary users in Infrastructure Vehicular Networks

Network Gaming I / Sunset 3
- A Real-Time Game Streaming Optimization Technique Based on Layer Caching
- Prediction of Online Game Performance Degradation under Network Impairments
- Ensuring Coexistence among Games and Downloads in Multihop Wireless Networks

Cloud Services and Networking IV / Sunset 4
- Improving Profit through Cloud Federation
- An On-line Algorithm to Determine the Location of the Server in a Server Migration Service
- An Open NFV and Cloud Architectural Framework for Managing Application Virality Behaviour

Social, P2P and Multimedia Networking, Services and Applications IV / Wilshire B
- Systematic, Large-scale Analysis on the Feasibility of Media Prefetching in Online Social Networks
- ViMood: Using social Emotions to Improve Video Indexing
- TRank: Ranking Twitter Users according to specific Topics

16:50 – 18:00 SESSIONS

Wireless Communications VI / Sunset 5
- Seamless Group Reformation in Wi-Fi Peer-to-Peer Network using Dormant Backend Links
- Cluster-parent based RPL for Low-Power and Lossy Networks in Building Environment
- Spectrum Sharing Method to Form Bundle of White Space in Cognitive Radio

Mini Conference: Cloud Services and Networking / Sunset 4
- Two-Phase Ontology-based Resource Allocation Approach for IaaS Cloud Service
- Horizontal Cloud Database Partitioning With Data Mining Techniques
- Fast Interest Recovery in Content Centric Networking under Lossy Environment
- A Study of Hierarchical Cloud Resource Pricing
- Deadline-Guaranteed Scheduling Algorithm with Improved Resource Utilization for Cloud Computing

Mini Conference: Smart Spaces and Mobile IoT / Wilshire A
- Design and Evaluation of Large-Scale and Real-time Remote Control Architecture for Home Appliances
- Smart e-Health Gateway: Bringing Intelligence to Internet of Things Based Ubiquitous Healthcare Systems
- A Web-based platform for Scavenger Hunt Games using the Internet of Things
- Supporting Heterogeneous Networks and Pervasive Storage in Mobile Content-Sharing Middleware
- Network Traffic Characteristics of Proxied Wearable Devices: A Day with Google Glass

Mini Conference: Cognitive Radio, 5G, and Vehicular Communications / Sunset 1
- Dynamic Frequency Allocation for Professional Wireless Microphone Systems
- Revamp of eNodeB for 5G Networks: Detracting Spectrum Scarcity
- Two-Path Successive Relaying with Threshold-Based Opportunistic Zero-Forcing Beamforming
- AMEND - An Algorithm for Mitigating ENvironmental Degradations in Heterogeneous Networks
- Validation of a Vehicle Emulation Platform Supporting OBD-II Communications

18:30 – 20:30 BANQUET & KEYNOTE ADDRESS / Celebrity 1
Nirwan Ansari, Distinguished Professor, New Jersey Institute of Technology
Greening the Last Mile Access

07:30 – 12:00 REGISTRATION / Celebrity Ballroom 1 Foyer

08:30 – 12:00 TUTORIALS

T8: Advances in IoT Standardization & Related Research Opportunities / Sunset 1

09:00 – 11:30 CCAN WORKSHOP / Sunset 3
- Lightweight Protocol for Anonymity and Mutual Authentication in RFID Systems
- An Intrusion Detection System Against Malicious Attacks on the Communication Network of Driverless Cars
- Novel Request Algorithm for Distributed Scheduling in Wireless Mesh Networks

09:00 – 12:30 VENITS Workshop / Sunset 2

09:00 – 10:30 Vehicular Networking and ITS I
- Low Cost Upgrade for Established Traffic Monitoring Systems to Support Real-Time
- A Framework for Interference Control in Software-Defined Mobile Radio Networks
- Vehicular Delay Tolerant Network (VDTN): Routing Perspectives
- Extended Mobility Management and Routing Protocols for Internet-to-VANET Multicasting

11:00 – 12:30 Vehicular Networking and ITS II
- Power Consumption Evaluation in Vehicular Opportunistic Networks
- A Comparative Evaluation of AMQP and MQTT Protocols over Unstable and Mobile Networks
- VaSili: A Simulation Runtime Environment for Applications in Vehicular Ad-Hoc Networks
- Scalable Reactive Vehicle-to-Vehicle Congestion Avoidance Mechanism

10:00 – 10:30 NETWORKING COFFEE BREAK / Sunset Foyer

CCNC 2015
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EMERGING AND INNOVATIVE CONSUMER TECHNOLOGIES AND APPLICATIONS

2015 PROGRAM GUIDE

Friday, January 9, 2015

07:30 – 19:00 REGISTRATION / Celebrity Ballroom 1 Foyer

08:30 – 12:00 TUTORIALS

T1: Vehicular Networking / Sunset 1
T2: IoT & Cloud Based Paradigm in Future Consumer Applications / Sunset 2
T3: Smart Grid & Microgrid Privacy / Sunset 3
T4: Information Centric Networking for Mobile Networks & IoT / Sunset 4

08:55 – 12:35 RA-WERHA WORKSHOP / Wilshire A

08:55 – 09:00 Welcome Address
09:00 – 10:00 Keynote Session
Michele Noqueira, Federal University of Parana, Curitiba, Brazil
Are we ready to intimately rely on wireless and mobile health care?

10:30 – 12:30 WBANs Design and Deployment for Real-time and Healthcare Applications
- QoS Architecture over WBANs for Remote Vital Signs Monitoring Applications
- Challenges of Leveraging Mobile Sensing Devices in Wireless HealthCare
- DTN for WSN: FREAK, Implementations and Study
- A Social Network Model for Big Data Privacy Preserving and Accountability Assurance

10:00 – 10:30 NETWORKING COFFEE BREAK / Sunset Foyer

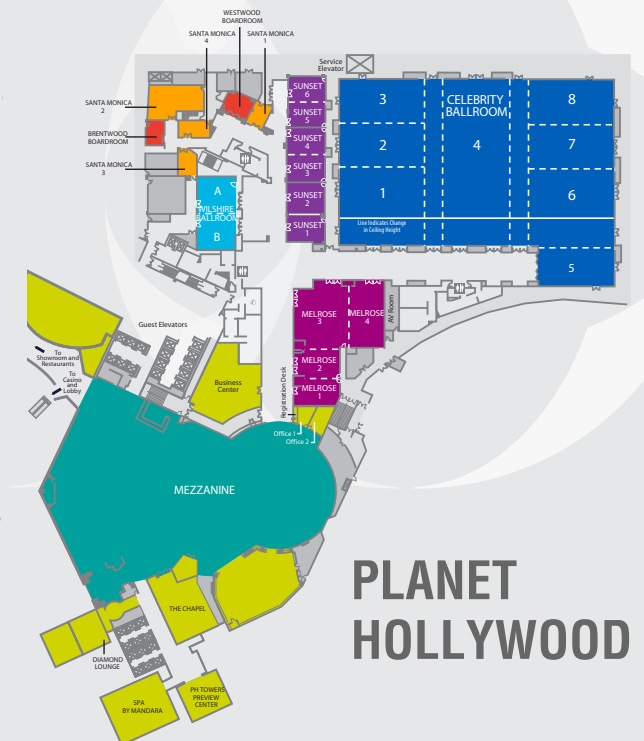## 12:00 – 13:00 LUNCH / On Your Own

13:00 – 16:30 TUTORIALS

T5: Energy Efficiency in Wireless Networks / Sunset 1
T7: Biologically Inspired Networking Approaches as Building Blocks for Distributed Systems / Sunset 2

15:00 – 15:30 NETWORKING COFFEE BREAK / Sunset Foyer

18:00 – 19:30 OPENING RECEPTION / Melrose 3

PLANET HOLLYWOOD

07:30 – 17:00 REGISTRATION / Celebrity Ballroom 1 Foyer

08:30 – 09:30 WELCOME & KEYNOTE SESSION / Celebrity 2/3
Moe Tanabian, VP, Samsung
Lab Head, Smart Things Innovations Lab

09:30 – 10:00 NETWORKING COFFEE BREAK / Sunset Foyer

10:00 – 11:10 SESSIONS

FDC Panel: Converging Around Big Data and the Consumer, an IEEE Future Directions Event / Celebrity 2/3
Moderator: Charles Despins, President & CEO, Prompt inc
Speakers: Steven Collier, Director, Smart Grid Strategies, Milsoft Utility Solutions
Ling Liu, Director, IEEE Future Directions & IEEE Fellow
May Wang, Associate Professor, Georgia Tech & Emory University
Kathy Grise, Program Director, IEEE Future Directions Program Director & IEEE Senior Member

Wireless Communications I / Sunset 1
- Adaptive OFDM Synchronization Using Quadratic Search Step Sizes
- Increasing the Lock-in Probability of Blind Symbol Time Offset Estimators in OFDM Systems
- Fast Device Discovery for Vehicle-to-Pedestrian Communication using Wireless LAN

Mobile and IoT Devices and Platforms I / Sunset 2
- Design and Implementation of Cloud Offloading Framework among Devices for Web Applications
- Towards Real-time Monitoring and Detection of Asthma Symptoms on Resource-constraint Mobile Device
- SPS: an SMS-based Push Service for Energy Saving in Smartphone's Idle State

Security, Privacy and Content Protection I / Sunset 3
- LPCQP: Lightweight Private Circular Query Protocol for Privacy-Preserving k-NN Search
- PriMSED – Privacy-Friendly Measurement of Smart Entertainment Devices
- Preserving Receiver's Anonymity for Circular Structured P2P Networks

11:20 – 12:30 SESSIONS

Social, P2P and Multimedia Networking, Services and Applications I / Wilshire A
- Multi-Disciplinary Ontological Geo-Analytical Incident Modeling
- Open-Loop Rate Control for Adaptive Video Streaming

Wireless Communications II / Sunset 4
- Adaptive Channel Selection Control Equalizing Sojourn Time of Sending Packets inside Wireless Stations in Wireless Access Networks
- Realization of 4-by-4 MIMO Channel Using One Composite Leaky Coaxial Cable
- Visible Light Communication Using a Conventional Image Sensor

Wireless Networking and Mobility I / Sunset 5
- DTB-MAC: Dynamic Token-Based MAC Protocol for Reliable and Efficient Beacon Broadcasting in VANETs
- Handoff Algorithms in Vehicular Radio-over-Fiber Networks: Packet Loss Mathematical Analysis and Performance Evaluation Study
- An Optimized Roadside Units (RSU) Placement for Delay-Sensitive Applications in Vehicular Networks

Security, Privacy and Content Protection II / Sunset 6
- An Access Control Mechanism to Ensure Privacy in Named Data Networking using Attribute-based Encryption with Immediate Revocation of Privileges
- Security Enhancement of Secure USB Debugging in Android System
- Discovering Similar Malware Samples Using API Call Topics

12:30 – 13:30 LUNCH / Celebrity 2/3

13:00 – 14:00 DEMONSTRATIONS / Celebrity 1
- Remote APDU Call Secure (RACS) Creating Secure and Trusted Applications for NFC Mobile Devices
- Contents Sharing among Mobile Users in Breadcrumbs-enabled Cache Network
- Proactive Traffic Control Based on Human Blockage Prediction Using RGBD Cameras for Millimeter-wave Communications
- Drops: A Multi-Producer and Multi-Consumer Data Sharing Framework with Human Experience
- Mobile Web Applications of Agent-Based Model and Visualization Tool to Study Boundless Connectivity Threshold
- A Web-based Platform for Scavenger Hunt Games using the Internet of Things
- Semantic Interoperability of Energy using and producing Appliances in Residential Environment

13:00 – 14:00 POSTER SESSION I / Celebrity 1
- A Novel Distributed STBC Cooperative Diversity Scheme for OFDM Multi-hop Relay Networks
- Simultaneous Wireless Information and Power Transfer for Cognitive Radio Systems with Average Energy Harvesting Constraint
- Adaptive Rate Control for Multimedia Multicast over Wireless Networks
- A Video Interface for Elderly Patients to Review Depth Videos Over Network
- A Smartphone based Profile Framework for Managing Network and Resources
  An Efficient Scheme for Authenticated and Secure Message Delivery in Vehicular Ad Hoc Networks
- Methods for Estimating RRC State of Mobile Terminals in Push Servers
- Timestamp-Free Synchronization for Wireless Body-Area Networks
- An Analysis of Native Apps for Mobile Banking

14:00 – 15:10 SESSIONS

Consumer Communications and Networking Standards I / Sunset 1
- Toward Semantic Interoperability of Energy using and producing Appliances in Residential Environments
- The GPM Meta-transcompiler: Harmonizing JavaScript-oriented Web Development with the upcoming ECMAScript 6 "Harmony" Specification
- 60 GHz MAC Standardization: Progress and Way Forward

Wireless Communications III / Sunset 5
- Multi User Diversity for Enhanced Spectral Efficiency in LTE-A
- Channel Estimation Error-Aware Timing Correction Method for MBSFN in LTE
- A Novel Coding Strategy for Device-to-Device Communications

Wireless Networking and Mobility II / Sunset 6
- Impact of Buildings on Vehicle-to-Vehicle Communication at Urban Intersections
- Transport and Traffic Rule Violation Monitoring Service in ITS: A Secured VANET Cloud Application
- Construction of a Node-combined Wireless Network for Large-scale Disasters

Security, Privacy and Content Protection III / Sunset 4
- Hacker's Toolbox: Detecting Software-Based 802.11 Evil Twin Access Points
- Detecting Colluding Blackhole and Greyhole Attack in Delay Tolerant Networks
- User-Side Wi-Fi Evil Twin Attack Detection Using SSL/TCP Protocols

15:10 – 15:30 NETWORKING COFFEE BREAK / Sunset Foyer

15:30 – 16:40 SESSIONS

Industry Program / Sunset 2
- Efficient Multi-Source Multicasting in Information Centric Networks
- An Information Centric Networking Approach Towards Contextualized Edge Service
- From ID/locator split to ICN
- Macroscopic View of Malware in Home Networks
- Drop Dead Data What to expect Securing Data instead of Channels

Smart Spaces and IoT Networking I / Sunset 3
- Sherlock-SD: A Light-Weight Universal Service Discovery for Web of Things (WoT) Services
- Mobile CoAP for IoT Mobility Management
- End-to-end Service Assurance in IoT MQTT-SN

Wireless Networking and Mobility III / Sunset 6
- Mobility Enhancement of Dense Small-Cell Network
- A Learning Based Mobile User Traffic Characterization for Efficient Resource Management in Cellular Networks
- A Method for Correcting Minimum RTT of TCP Congestion Control in Mobile Networks

Multimedia, Green and Bio-Inspired Networking / Wilshire A
- Exploiting TCP Vegas' Algorithm to Improve Real-Time Multimedia Applications
- MIH (Media Independent Handover) for Green Wireless Communications
- Hierarchical Design of an Attractor Structure for VNT Control Based on Attractor Selection

16:50 – 18:00 SESSIONS

Mini Conference: Security, Privacy and Content Protection / Sunset 4
- Pseudonym-based Anonymity Zone Generation for Mobile Service with Strong Adversary Model
- A New Non-Intrusive Authentication Method based on Dynamics of Driver's Upper Body Joint Angle
- Wireless Information Security Improvement with Chaotic High Order Modulation

Mini Conference: Education, Multimedia and Green Communications / Wilshire A
- A Mobile Serious Game for Computer Science Learning
- Dynamic Search Tolerance at Runtime for Lookup Determinism in the DHT-based P2P Network Kad
- Cooperative Repeaters to Improve Data Collection in Low Power Generation for Solar-powered Wireless Sensor Networks
- Towards Optimal CPU Frequency and Different Workload for Multi-objective VM Allocation
- Business Metro Ethernet Services over DOCSIS® 3.1

16:50 – 18:00 SESSIONS (continued)

Mini Conference: Wireless Communications / Sunset 5
- A Reactance Domain Fourth-order MUSIC Algorithm Using 13-element ESPAR Antenna
- Performance Analysis of Non-Coherent OOK Detection with Complex BPF based Low IF Receiver
- Power and QoS Optimization for BLE-based Accessory-Smartphone Communications
- Single-channel Full-duplex mmWave Link using Phased-array for Ethernet
- A DASH7-based Power Metering System

Mini Conference: Wireless Networking and Mobility / Sunset 6
- A Network Information Service for Quality-Driven Mobility
- Higher Rate Packet Transmission Scheduling for Enhancing TCP Performance by Smoothing of Queuing Time
- Augmented Conflict-free Scheduling for Low Power WSNs
- Performance Analysis of Local Algorithms in Large-Scale Disconnected Networks
- Self-organized Intersection Control Management for Motorized and non-Motorized Traffic

18:00 – 19:30 HAPPY HOUR DEMONSTRATIONS / Celebrity 1

08:00 – 17:00 REGISTRATION / Celebrity Ballroom 1 Foyer

08:30 – 09:30 KEYNOTE SESSION / Celebrity 2/3
Jon Peha, Full Professor, Carnegie Mellon University

09:30 – 10:00 NETWORKING COFFEE BREAK / Sunset Foyer

10:00 – 11:10 SESSIONS

Mobile and IoT Devices and Platforms III / Sunset 2
- Assessing the Impact of Driving Behavior on Instantaneous Fuel Consumption
- Decentralized RSU-based Real-Time Path Planning for Vehicular Ad Hoc Networks
- Towards an Offloading Approach that Augments Multi-Persona Performance and Viability

Wireless Networking and Mobility IV / Sunset 6
- LIBR: ID-Based Routing for Linear Wireless Mesh Networks
- Cross-Layer Cooperation of Dynamic Multi-Hop Shortcut Local Path Control Scheme with Threshold Controlled Routing Protocol
- Energy-aware Multipath Provisioning in Wireless Mesh Networks

Cloud Services and Networking I / Sunset 1
- A SDN-based Network Architecture for Cloud Resiliency
- QAMO-SDN: QoS Aware Multipath TCP for Software Defined Optical Networks
- An Adaptive Load Balancing Scheme for Evolving Virtual Networks

Smart Grid, Secure IoT and Localization I / Wilshire A
- Optimal Resource Allocation in Cognitive Smart Grid Network
- A Secure and Effective Device Pairing Protocol
- Exploiting User Movement for Position Detection

11:20 – 12:30 SESSIONS

Green Communications and Computing I / Sunset 3
- Energy-Aware Allocation of Reliable Virtual Software Defined Networks
- Energy Efficiency Performance of Relay-Assisted Power-Line Communication Networks
- Can Electric Devices be identified from their Signatures of Waveform?

Wireless Networking and Mobility V / Sunset 5
- Extending the Lifetime of Barrier Coverage by Adding Sensors to a Bottleneck Region
- Network Coverage Sensitive Pseudo Geometric Broadcast Protocols in Wireless Sensor Networks
- Modeling and Analysis of Non Beacon Mode for Low-Rate WPAN

Cloud Services and Networking II / Sunset 4
- Activity-Based Cloud Sending: Push Services for User Device Multiplicity
- SEPIA: A Framework for Optimizing Energy Consumption in Android Devices
- Understanding Usage and Activity in Cellular Networks by Investigating HTTP Requests

11:20 – 12:30 SESSIONS (continued)

Social, P2P and Multimedia Networking, Services and Applications II / Wilshire B
- Analysis of H.264 Bitstream Prioritization for Dual TCP/UDP Streaming of HD Video over WLANs
- Novel Ad Insertion Technique for MPEG-DASH
- Congestion-Aware Edge Caching for Adaptive Video Streaming in Information-Centric Networks

12:30 – 13:30 LUNCH / Celebrity 2/3

13:00 – 14:00 DEMONSTRATIONS / Celebrity 1

13:00 – 14:00 POSTER SESSIONS II / Celebrity 1
- QoE-driven LTE Downlink Scheduling for VoIP Application
- Adaptive Multiple Access Class Barring Factors for M2M Communications in LTE-A Networks
- General Dimension of BS-MIMO by Extension of Parasitic Elements in ESPAR Antenna
- A Multi-layer Architecture for Realizing Network Virtualization Using MPLS Technology
- Fast Restoration Method of Virtual Resources on OpenStack
- A Network Virtualization Framework for Information Centric Data Center Networks
- Multipath TCP with Multiple ACKs for Heterogeneous Communication Links
- Towards a System to Find Correlations between Geographical Twitter Sentiment and Stock Prices
- A Priority Based Cross Layer Data Dissemination Protocol for Healthcare Applications
- Examination of the Effect of Social Login through Analysis of User's Purchasing Tendency Case Study of Golf Portal Site

14:00 – 15:10 SESSIONS

Wireless Communications IV / Sunset 5
- Implementation and Evaluation of A Combined Optimization Scheme for Routing and Channel Assignment in Wireless Mesh Networks
- A Backoff Counter Reservation Scheme for Performance Improvement in Wireless Body Area Networks
- A Fuzzy Logic Based Approach for Network Selection in WLAN/3G Heterogeneous Network

Smart Grid and Sensing I / Wilshire A
- Reinforcement Learning-Based Control of Residential Energy Storage Systems for Electric Bill Minimization
- Energy-efficient Smartphone-based Data Collection from Wireless Sensor Networks
- Sensor Assisted Movement Identification and Prediction for Beamformed 60 GHz Links