**ICCCN 2017 PROGRAM At-A-GLANCE**

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| **July 30 (Sunday)** | |
| 20:00 – 21:00 | Registration open (Pinnacle Foyer) |

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| **July 31 (Monday)** | | | | |
| 07:00 | Registration open (Pinnacle Foyer)  Continental Breakfast (Pinnacle Foyer) | | | |
| 08:20 - 08:30 | Opening Remarks  (Pinnacle I/II) | | | |
| 08:30 - 09:30 | Keynote 1 (Pinnacle I/II) – Speaker: **Prof. John Stankovic**  Chair: Haiying Shen | | | |
| 09:30 - 10:00 | Coffee break | | | |
| 10:00 – 12:00 | RM (Pinnacle I/II)  Session 1  Cognitive Network | RM (Shaughnessy I)  Session 2  Mobile Computing | RM (Shaughnessy II)  Session 3  Content Delivery Network | RM (Dundarave)  Invited 1  Cloud  Computing |
| 12:00 - 13:30 | Lunch break | | | |
| 13:30 - 15:00 | Panel 1 (Pinnacle I/II) – **Age of the IoT**  Moderator: Sajal Das | | | |
| 15:00 - 15:30 | Coffee break | | | |
| 15:30 - 17:30 | RM (Pinnacle I/II)  Session 4  Security, Privacy and Trust (1) | RM (Shaughnessy I)  Session 5  Datacenter Network | RM (Shaughnessy II0  Invited 2  Social  Network | RM (Dundarave)  Invited 3  Security, Privacy and Trust |
| 18:00 - 20:00 | Reception (Point Grey) | | | |

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| **August 1 (Tuesday)** | | | | |
| 08:00 | Registration open (Pinnacle Foyer)  Continental Breakfast (Pinnacle Foyer) | | | |
| 08:30 - 09:30 | Keynote 2 (Pinnacle I/II) – Speaker: **Prof. Bruce Maggs**  Chair: Christian Poellabauer | | | |
| 09:30 - 10:00 | Coffee break | | | |
| 10:00 - 12:00 | RM (Pinnacle I/II)  Session 6  Software Defined Network (1) | RM (Shaughnessy I)  Session 7  IoT and Multimedia | RM (Shaughnessy II)  Session 8  Communication Network | RM (Dundarave)  Invited 4  Mobile  Computing (1) |
| 12:00 - 13:30 | Lunch break | | | |
| 13:30 - 15:00 | Panel 2 (Pinnacle I/II)– **Cloud Scale Big Data Analytics**  Moderator: Chris Stewart | | | |
| 15:00 - 15:30 | Coffee break | | | |
| 15:30 - 17:30 | RM (Pinnacle I/II)  Session 9  Security, Privacy and Trust (2) | RM (Shaughnessy I)  Session 10  Cloud and Edge Computing | RM (Shaughnessy II)  Invited 5  Communication Network | RM (Dundarave)  Invited 6  Distributed System (1) |
| 19:00 - 21:00 | Banquet (Pinnacle II/III ) | | | |

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| **August 2 (Wednesday)** | | | | |
| 08:00 | Registration open (Pinnacle Foyer)  Continental Breakfast (Pinnacle Foyer) | | | |
| 08:30 - 09:30 | Keynote 3 (Pinnacle I/II) – Speaker: **Prof. Henning Schulzrinne**  Chair: Tarek F. Abdelzaher | | | |
| 09:30 - 10:00 | Coffee break | | | |
| 10:00 - 12:00 | RM (Pinnacle I/II)  Session 11  Software Defined Network (2) | RM (Shaughnessy I)  Session 12  Social Networks and Computing | RM (Shaughnessy II)  Invited 7  Mobile Computing (2) | RM (Dundarave)  Invited 8  Hot Topic in Networking |
| 12:00 - 13:30 | Lunch break | | | |
| 13:30 - 15:00 | Panel 3 (Pinnacle I/II) **- NSF Funding Panel**  Moderator: Haiying Shen | | | |
| 15:00 - 15:30 | Coffee break | | | |
| 15:30 - 17:30 | **RM (Pinnacle I)**  Session 13  **RM (Pinnacle II)**  Poster Session | RM (Shaughnessy I)  Session 14  Hot Topic in Networking | RM (Shaughnessy II)  Invited 9  Distributed System (2) | RM (Dundarave)  Invited 10  Network Management |

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| **August 3 (Thursday) - Workshops** | | | |
| 7:30am - Registration Desk/Continental Breakfast (Pinnacle Foyer) | | | |
| 08:00 - 12:00 | RM (Pinnacle I)  VENITS | RM (Pinnacle II)  WiMAN | RM (Shaughnessy I)  IoTPST |
| 12:00 - 13:30 | Lunch break | | |
| 13:30 - 17:00 | RM (Pinnacle I)  PSTBT | RM (Pinnacle II)  NSAA | RM (Shaughnessy I)  IioTCom |

**July 31st (Monday)**

10:00-12:00

Session 1 Cognitive Network

**Chair: Lijun Qian (CREDIT Center, PVAMU)**

Big RF Data Assisted Cognitive Radio Network Coexistence in 3.5GHz Band

Oluwaseyi Omotere, Lijun Qian, Riku Jäntti, Miao Pan and Zhu Han

Channel Assignment in Cognitive Radio Networks: A Joint Utility and Stable Matching Approach

Sayantan Chowdhury and Jianping Pan

Fade Duration Based Sleep Mode Activation in Dense Femtocell Cluster Networks

Aklilu Gebremichail and Cory Beard

A QoE-driven Spectrum Decision Scheme for Multimedia Transmissions over Cognitive Radio Networks

Ling Wang, Junjie Yang and Xiaojun Song

Replacing Free-Ranging Robots with Alternative Mobile Nodes

Hugues Smeets, Matteo Ceriotti, Eduardo Ferrera and Pedro Jose Marron

Session 2 Mobile Computing

**Chair: Mohammad J. Abdel-Rahman (Virginia Tech)**

Achieving Fair Spectrum Allocation for Co-Existing Heterogeneous Secondary User Networks

Longfei Wu, Xiaojiang Du, Jie Wu and Bin Song

Mobility of Everything (MoE): An Integrated and Distributed Mobility Management

Sangyup Han, Jaehyun Park, Haeun Kim, Jaehee Ha, Seungwon Shin, Sungwon Kang and Myungchul Kim

Two-Stage Mixed Queuing Model for Web Security Gateway Performance Evaluation

Shichang Xuan, Dapeng Man, Wei Wang, Jiangchuan Zhang, Wu Yang and Xiaojiang Du

Analyzing Android Application in Real-time at Kernel Level

Hao Ruan, Xiao Fu, Xuanyu Liu, Xiaojiang Du and Luo Bin

Online Algorithm for Wireless Backhaul HetNets with Advanced Small Cell Buffering

Tri Nguyen, Wessam Ajib and Chadi Assi

Session 3 Content Delivery Network

**Chair: Kaliappa Ravindran (City University of New York)**

Closing the Floodgate with Stateless Content-Centric Networking

Christopher Wood, Cesar Ghali, Gene Tsudik and Ersin Uzun

NACID: A Neighborhood Aware Caching and Interest Dissemination in Content Centric Networks

Amitangshu Pal and Krishna Kant

Game Theoretic D2D Content Sharing: Joint Participants Selection, Routing and Pricing

Yujian Fang, Yuezhi Zhou, Xiaohong Jiang, Di Zhang and Yaoxue Zhang

An Incentive-based Mixed QoE Framework for Content Delivery to Smart Homes

Suiming Guo, Liang Chen and Dah Ming Chiu

MEET-IP: Memory and Energy Efficient TCAM-based IP Lookup

Wenjun Li, Xianfeng Li and Hui Li

Invited 1 Cloud Computing

**Chair: Murat Demirbas (University at Buffalo, SUNY)**

LASER: A Deep Learning Approach for Speculative Execution and Replication of Deadline-Critical Jobs in Cloud

Maotong Xu, Sultan Alamro, Tian Lan and Suresh Subramaniam

EA2S2: An Efficient Application-Aware Storage System for Big Data Processing in Heterogeneous Clusters

Teng Wang, Jiayin Wang, Son Nam Nguyen, Zhengyu Yang, Ningfang Mi and Bo Sheng

Towards Financial Cloud Computing: Opportunities and Challenges

David Irwin, Prateek Sharma, Supreeth Shastri and Prashant Shenoy

Wireless VR/AR with Edge/Cloud Computing

Xueshi Hou, Yao Lu and Sujit Dey

GreenWay: Joint VM Placement and Topology Adaption for Green Data Center Networking

Shenghui Yan, Shihan Xiao, Yuchi Chen, Yong Cui and Jiangchuan Liu

15:30 - 17:30

Session 4 Security, Privacy and Trust (1)

**Chair: Erez Waisbard (Nokia Bell Labs)**

Incentive Mechanism Design in Mobile Crowd Sensing Systems with Budget Restriction and Capacity Limit

Yu Zhou, Yuan Zhang and Sheng Zhong

An Efficient Privacy-Preserving Localization Algorithm for Pervasive Computing

Guanghui Wang, Jianping Pan, Jianping He and Subin Shen

How Vulnerable Is the PublicWiFi AP You Are Using?

Ruming Tang, Haibin Li, Kaixin Sui, Zihao Jin, Xiao Yang, Dan Pei and Beichuan Zhang

Efficient Parallelization of Regular Expression Matching for Deep Inspection

Zhe Fu, Zhi Liu and Jun Li

WiTraffic: Low-cost and Non-intrusive Traffic Monitoring System Using WiFi

Myounggyu Won, Shaohu Zhang and Sang Son

Session 5 Datacenter Network

**Chair: Angelo Sapello (Vencore Labs)**

AutoPath: Harnessing Parallel Execution Paths for Efficient Resource Allocation in Multi-Stage Big Data Frameworks

Han Gao, Zhengyu Yang, Janki Bhimani, Teng Wang, Jiayin Wang, Ningfang Mi and Bo Sheng

High Availability for VM Placement and a Stochastic Model for Multiple Knapsack

Bochao Shen, Ravi Sundaram, Srinivas Aiyar, Karan Gupta, Abhinay Nagpal, Aditya Ramesh and Himanshu Shukla

Constraints-off Scheduling: A Simple Technique to Handle Soft Constraints in Cluster Scheduling

Wenzhuo Li, Chuang Lin, Jie Hu and Xiaolan Liu

Tars: Timeliness-aware Adaptive Replica Selection for Key-Value Stores

Wanchun Jiang, Liyuan Fang, Haiming Xie, Xiangqian Zhou and Jianxin Wang

Fair Work-Conserving Bandwidth Guarantees in Datacenters using MPTCP

Baraa Ali and Kang Chen

Invited 2 Social Network

**Chair: Simone Silvestri (Missouri University of Science and Technology)**

Identifying the social signals that drive online discussions: A case study of Reddit communities

Benjamin Horne, Sibel Adali and Sujoy Sikdar

On the Root Cause of Dropout-Induced Contraction Process in D2D-Based Mobile Social Networks

Sigit Pambudi, Wenye Wang and Cliff Wang

ForestStream: Accurate Measurement of Cascades in Online Social Networks

Long Gong, Lanxi Huang, Paul Tune, Jinyoung Han, Chen-Nee Chuah, Matthew Roughan and Jun Xu

Connectivity-Aware Task Outsourcing and Scheduling in D2D Networks

Zhen Hong, Zehua Wang, Wei Cai and Victor Leung

Invited 3 Security, Privacy and Trust

**Chair: Hailong Zhang (Chinese Academy of Sciences)**

Safeguarding Building Automation Networks: THE-Driven Anomaly Detector Based on Traffic Analysis

Zhiyuan Zheng and Narasimha Reddy

Internet of Vehicles and Autonomous Connected Car - Privacy and Security Issues

Joshua Joy and Mario Gerla

Private Information Diffusion Control in Cyber Physical Systems: A Game Theory Perspective

Jingjing Wang, Chunxiao Jiang, Zhu Han, Tony Q. S. Quek and Yong Ren

CollabLoc: Privacy-Preserving Multi-Modal Localization via Collaborative Information Fusion

Vidyasagar Sadhu, Dario Pompili, Saman Zonouz and Vincent Sritapan

The Computer for the 21st Century: Security & Privacy Challenges After 25 Years

Leonardo B. Oliveira, Fernando Magno Quintao Pereira, Rafael Misoczki, Diego F. Aranha, Fabio Borges, Jie Liu

**Aug 1st (Tuesday)**

10:00-12:00

Session 6 Software Defined Network (1)

**Chair: Younghee Park (San Jose State University)**

Optimize Routing in Hybrid SDN Network With Changing Traffic

Yingya Guo, Zhiliang Wang, Xia Yin, Xingang Shi and Jianping Wu

Balancer: A Traffic-Aware Hybrid Rule Allocation Scheme in Software Defined Networks

Dingmin Wang, Qing Li, Yong Jiang, Mingwei Xu and Guangwu Hu

TupleMerge: Building Online Packet Classifiers by Omitting Bits

James Daly and Eric Torng

HyperV: a High Performance Hypervisor for Virtualization of the Programmable Data Plane

Cheng Zhang, Yu Zhou, Abdul Basit Dogar, Jun Bi and Jianping Wu

Power-Aware Lightpath Management for SDN-Based Elastic Optical Networks

Yu Xiong, Jin Shi, Yi Lv and George N. Rouskas

Session 7 IoT and Multimedia

**Chair: Hiroaki Hata (NTT Com Engineering, Japan)**

Selection and Aggregation of Location Information Provisioning Services

Filip Lemic, Vlado Handziski, Mladen Miksa, Jan Rabaey, John Wawrzynek and Adam Wolisz

Clock Drift Prediction for Fast Rejoin in 802.15.4e TSCH Networks

Timothy Claeys, Franck Rousseau, Bernard Tourancheau and Andrzej Duda

Improving Optimization-based Rate Adaptation in DASH System

Bo Wang, Xiaohui Luo and Fengyuan Ren

Optimising DASH over AQM-enabled Gateways using intra-chunk parallel retrieval (chunklets)

Jonathan Kua and Grenville Armitage

Benefits of FlowQueue-based Active Queue Management for Interactive Online Games

Grenville Armitage and Russell Collom

Session 8 Communication Network

**Chair: Wei Yu (Towson University)**

Separating Communication Policies and Mechanisms to Make Protocol Layering Clearer

Hiroki Watanabe, Takao Kondo, Kunitake Kaneko and Fumio Teraoka

Dynamically Reconfigurable Architecture for Fault-tolerant 2D Networks-on-Chip

Poona Bahrebar, Dirk Stroobandt and Azarakhsh Jalalvand

PAS: A History Synchronization Protocol for Redundancy Elimination in Satellite IP Networks

Leijun Huang, Hailin Feng and Ying Le

Decision Support for Computational Offloading by Probing Unknown Services

Christian Meurisch, Julien Gedeon, The An Binh Nguyen, Fabian Kaup and Max Mühlhäuser

A Bloom Filter-Based Dual-Layer Routing Scheme in Large-Scale Mobile Networks

Weichao Gao, James Nguyen, Yalong Wu, William Hatcher and Wei Yu

Invited 4 Mobile Computing (1)

**Chair: Rahmira Rufus (North Carolina A&T State University)**

Memento: An Emotion Driven Lifelogging System with Wearables

Shiqi Jiang, Pengfei Zhou, Zhenjiang Li and Mo Li

The Sticking Heartbeat Aperture Resynchronization Protocol

Santiago Gonzalez, Tracy Camp and Katia Jaffrès-Runser

SonarBeat: Sonar Phase for Breathing Beat Monitoring with Smartphones

Xuyu Wang, Runze Huang and Shiwen Mao

Enjoy the Silence: Noise Control with Smartphones

Taesik Gong, Jun Hyuk Chang, Joon-Gyum Kim, Soowon Kang, Donghwi Kim and Sung-Ju Lee

Validation of a New Model-Free Signal Processing Method for Gait Feature Extraction Using Inertial Measurement Units to Diagnose and Quantify the Severity of Parkinson’s Disease

Ali Akbari, Roozbeh Jafari and Richard B. Dewey Jr

15:30 - 17:30

Session 9 Security, Privacy and Trust (2)

**Chair: Badis HAMMI (Telecom ParisTech, France)**

Fault-Tolerant and Secure Data Transmission Using Random Linear Network Coding

Pouya Ostovari and Jie Wu

It's About Time: Securing Broadcast Time Synchronization with Data Origin Authentication

Robert Annessi, Joachim Fabini and Tanja Zseby

An Attribute & Network Coding-based Secure Multicast Protocol for Firmware Updates in Smart Grid AMI Networks

Samet Tonyali, Kemal Akkaya, Nico Saputro and Xiuzhen Cheng

EvilDirect: A New Wi-Fi Direct Hijacking Attack and Countermeasures

Ala Altaweel, Radu Stoleru and Guofei Gu

RealDroid: Large-Scale Evasive Malware Detection on ”Real Devices”

Lang Liu, Yacong Gu, Qi Li and Purui Su

Session 10 Cloud and Edge Computing

**Chair: Kewei Sha (University of Houston - Clear Lake)**

LB-MAP: Load-Balanced Middlebox Assignment in Policy Driven Cloud Data Centers

Manar Alqarni, Alexander Ing and Bin Tang

Proximity-aware IaaS for Edge Computing Environment

Hiroaki Yamanaka, Eiji Kawai, Yuuichi Teranishi and Hiroaki Harai

EDOS: Edge Assisted Offloading System for Mobile Devices

Hank Harvey, Ying Mao, Yantian Hou and Bo Sheng

Energy-efficient Load-balanced Heterogeneous Mobile Cloud

Chien An Chen, Radu Stoleru and Geoffrey Xie

A Highly Adaptive and Energy-Efficient Optical Interconnect for On-Board Server Communications

Waltenegus Dargie, David Schoniger, Xin An, Laszlo Szilagyi, Ronny Henker and Frank Ellinger

Invited 5 Communication Network

**Chair: Kang Chen (Southern Illinois University)**

Bounds on the Age of Information for Global Channel State Dissemination in Fully-Connected Networks

Shahab Farazi, Andrew Klein and Donald Brown

Achieving Spectrum Efficient Communication Under Cross-Technology Interference

Shuai Wang, Zhimeng Yin, Song Min Kim and Tian He

VIP Lanes: High-speed Custom Communication Paths for Authorized Flows

James Griffioen, Ken Calvert, Zongming Fei, Sergio Rivera, Jacob Chappell, Mami Hayashida, Charles Carpenter, Song Yongwook and Hussamuddin Nasir

Leveraging Wireless Virtualization for Network Capacity Optimization in HetNets

Danda Rawat, Taylor White, Min Song and Chongqing Zhang

CityScape: A Metro-area Spectrum Observatory

Sumit Roy, Mark McHenry, Anish Ashok, Shyam Kannam, K. S. Shin, G. Vigil and D. Aragon

Invited 6 Distributed System (1)

**Chair: Poona Bahrebar (Ghent University, Belgium)**

BASIC Codes for Distributed Storage Systems

Hanxu Hou and Yunghsiang Han

Experiments and Analyses of Data Transfers Over Wide-Area Dedicated Connections

Nageswara Rao, Qiang Liu, Satyabrata Sen, Jesse Hanley, Ian Foster, Rajkumar Kettimuthu, Chase Wu, Daqing Yun, Don Towsley and Gayane Vardoyan

Resource Allocation for Pragmatically-assisted Quality of Information-aware Networking

James Edwards, Rebecca Passonneau, Taylor Cassidy and Thomas La Porta

Energy-aware scheduling strategies to support QoS-requirements in large scale networks

Qun Yu and Taieb Znati

PASS: Content Pre-staging through Provider Accessible Storage Service

Xueheng Hu and Aaron Striegel

**Aug 2nd (Wednesday)**

10:00-12:00

Session 11 Software Defined Network (2)

**Chair: Nageswara S.V. Rao (Oak Ridge National Laboratory)**

Detecting Link Fabrication Attacks in Software-Defined Networks

Dylan Smyth, Sean McSweeney, Donna O'Shea and Victor Cionca

Periodic Scheduling of Deadline-constrained Variable Slot-Bandwidth Reservations for Scientific Collaboration

Yongqiang Wang, Chase Wu and Aiqin Hou

Robust Controller Placement and Assignment in Software-defined Cellular Networks

Mohammad Abdel-Rahman, EmadelDin Mazied, Kory Teague, Allen MacKenzie and Scott Midkiff

Quantifying the Scalability of Software Defined Networks with Dynamic Topology

Venkatesh Ramaswamy

Machine-learning based Threat-aware System in Software Defined Networks

Chungsik Song, Younghee Park, Keyur Golani, Youngsoo Kim, Kalgi Bhatt and Kunal Goswami

Session 12 Social Networks and Computing

**Chair: Suporn Pongnumkul (NECTEC, Thailand)**

Friend Recommendation in Online Social Networks: Perspective of Social Influence Maximization

Huanyang Zheng and Jie Wu

Lilliput: A Storage Service for Lightweight Peer-to-Peer Online Social Networks

Thomas Paul, Niklas Lochschmidt, Anwitaman Datta, Hani Salah and Thorsten Strufe

Cinema or Restaurant: A Joint Geo- and Behavioral-similarity Approach for AP Categorization

Liting Zhao and Zhi Wang

GLFR: A Generalized LFR Benchmark for Testing Community Detection Algorithms

Ba-Dung Le, Hung Nguyen, Hong Shen and Nickolas Falkner

Realistic Models for Characterizing the Performance of Unmanned Aerial Vehicles

Ken Goss, Riccardo Musmeci and Simone Silvestri

Invited 7 Mobile Computing (2)

**Chair: Christian Meurisch (TU Darmstadt, Germany)**

A Simple Solution to Scale-Free Internet Host Mobility

J.J. Garcia-Luna-Aceves and Spencer Sevilla

Hybrid Indoor Tracking Using Crowdsourced Measurements  
Zafer Vatansever and Maite Brandt-Pearce

Unveiling Access Point Signal Instability in WiFi-based Passive Sensing

Giuseppe Bianchi, Simone Di Domenico, Mauro De Sanctis, Laura Liberati, Valerio Perrotta and Ernestina Cianca

Over-The-Air TV Detection using Mobile Devices

Mohamed Ibrahim, Marco Gruteser, Khaled Harras and Moustafa Youssef

A Sensor Network for Real-Time Volcano Tomography: System Design and Deployment

Dennis Phillips, Mohammad-Mahdi Moazzami, Guoliang Xing and Jonathan Lees

Invited 8 Hot Topic in Networking

**Chair: Omneya Issa (Innovation, Science and Economic Development Canada)**

Towards High Fidelity Network Emulation

Lianjie Cao, Xiangyu Bu, Sonia Fahmy and Siyuan Cao

Downlink Channel Estimation in Massive MIMO FDD Systems Using Block-ADMM

Ali Cirik, Naveen Mysore Balasubramanya and Lutz Lampe

Design of a Heterogeneous Cellular Network with a Wireless Backhaul

Meghana Bande and Venugopal Veeravalli

Anomaly Free On Demand Stateful Software Defined Firewalling

Zainul Din and Jaudelice de Oliveira

15:30 - 17:30

Session 13 Wireless Network

**Chair: Myounggyu Won (South Dakota State University)**

How Much Are Your Neighbors Interfering with Your WiFi Delay?

Changhua Pei, Youjian Zhao, Guo Chen, Yuan Meng, Yang Liu, Ya Su, Yaodong Zhang, Ruming Tang and Dan Pei

LazyAS: Client-Transparent Access Selection in Dual-band WiFi

Jun Zhang, Guangxing Zhang, Qinghua Wu, Lei Song and Gaogang Xie

TANDEM: Prioritizing Wireless Communication for Robust Industrial Process Control

Roman Naumann, Stefan Dietzel, Laura Wartschinski, Ben Schumacher and Björn Scheuermann

Channel Quality Correlation based Channel Probing in Multiple Channels

Yu Zhao and Tingting Yu

Multi-flow Glossy: Physical-layer Network Coding Meets Embedded Wireless Systems

Abdelrahman Abdelkader, Johannes Richter, Eduard Jorswieck and Marco Zimmerling

Session 14 Hot Topic in Networking

**Chair: Dr. Geethapriya Thamilarasu (University of Washington Bothell)**

nTorrent: Peer-to-Peer File Sharing in Named Data Networking

Spyridon Mastorakis, Alexander Afanasyev, Yingdi Yu and Lixia Zhang

NDNS: DNS-Like Name Service for NDN

Xiaoke Jiang, Alexander Afanasyev, Yingdi Yu, Jiewen Tan, Yumin Xia, Allison Mankin and Lixia Zhang

Constant Time Weighted Frequency Estimation for Virtual Network Functionalities

Gil Einziger, Marcelo Caggiani Luizelli and Erez Waisbard

Service-Concatenation Routing with Applications to Network Functions Virtualization

Shireesh Bhat and George N. Rouskas

An Approach for Reducing Energy Consumption in Dependable Virtual Network Embedding

Victor Lira, Eduardo Tavares and Meuse Oliveira Jr

Invited 9 Distributed System (2)

**Chair: Haiying Shen (University of Virginia)**

A Study and Comparison of Human and Deep Learning Recognition Performance under Visual Distortions

Samuel F. Dodge and Lina J. Karam

Multi-mode Low-latency Software-defined Error Correction for Data Centers

Fakhreddine Ghaffari, Ali Akoglu, Bane Vasic and David Declercq

A Comparison of Distributed Machine Learning Platforms

Kuo Zhang, Salem Alqahtani and Murat Demirbas

Uniform Circle Formation by Asynchronous Robots: A Fully-Distributed Approach

Shan Jiang, Jiannong Cao, Jia Wang, Milos Stojmenovic and Julien Bourgeois

Cider: A Case for Block Level Variable Redundancy on a Distributed Flash Array

Sharath Chandrashekhara, Madhusudhan R. Kumar, Mahesh Venkataramaiah and Vipin Chaudhary

Invited 10 Network Management

**Chair: Fuchun Joseph Lin (National Chiao Tung University)**

Service Placement in Complex Active Networks

Hatem Ibn Khedher, Hossam Afifi and Ahmed Kamal

Opportunities in Augmented Reality over Named Data Networking (NDN)

Jeff Burke

Towards automated intelligence in 5G systems

Yuanjie Li, Qianru Li, Songwu Lu, Chunyi Peng, Taqi Raza, Zhaowei Tan, Zhehui Zhang

Context-Aware Task Offloading for Wearable Devices

Yi Yang, Yeli Geng, Li Qiu, Wenjie Hu and Guohong Cao

**Poster Session**

**Chair: Lu Su (The State University of New York, Buffalo)**

Joint Optimization of Task Placement and Routing in Minimizing Inter-DC Coflow Completion Time

Yingya Guo, Zhiliang Wang, Xia Yin, Xingang Shi, Jianping Wu

Mean Holding Time in Sync of Lossy IEEE 802.15.4e TSCH Networks for Industrial IOT Applications

Ho-Ting Wu, Kai-Wei Ke, Po-Hung Chen, Chun-Ting Lin, Ming-Che Chen

DisVis 2.0: Decision Support for Rescue Missions Using Predictive Disaster Simulations with Human-centric Models

Christian Meurisch, The An Binh Nguyen, Martin Kromm, Andrea Ortiz, Ragnar Mogk, Max Mühlhäuser

Slotted Aloha for Cognitive Radio User and Its Tagged User Analysis

Maher Bouidani, Inoussa Mouiche

Building a Lightweight Testbed Using Devices in Personal Area Network

Qiaozhi Xu, Junxing Zhang

Enhancing Usability for the Wireless Charging Vehicle Simulator

Shuo-Han Chen, I-Ju Wang, Tseng-Yi Chen, Hsin-Wen Wei, Tsan-Sheng Hsu, Wei-Kuan Shih

Elasticity Guarantee for Virtual Machine Placement in Cloud Data Center Networks

Shuaibing Lu, Zhiyi Fang, Jie Wu

Improving WiFi Network Performance Under MPTCP Users

Mijanur Palash, Kang Chen

Effects of GPS Error on Geographic Routing

Justin Rohrer

Evaluating Different Pricing Algorithms for a Flexible Optical Choice-based Network

Robinson Udechukwu, Rudra Dutta, Takaya Miyazawa, Hiroaki Harai

Middleware for NICs in Bare PC Applications

Faris Almansour, Ramesh Karne, Alexander Wijesinha, Hamdan Alabsi, Rasha Almajed

Upgrading Wireless Home Routers as Emergency Cloudlet and Secure DTN Communication Bridge

Christian Meurisch, The An Binh Nguyen, Julien Gedeon, Florian Kohnhäuser, Milan Schmittner, Stefan Niemczyk, Stefan Wullkotte, Max Mühlhäuser

Optimal PPDU Duration Algorithm for VHT MU-MIMO Systems

Aitizaz Uddin Syed, Mohsin Iftikhar, Ljiljana Trajkovic

**Aug 3rd (Thursday) - Workshops**

08:00-12:00

**VENITS Workshop:**

**Chair: Carlos T. Calafate**

Welcome Address

**Workshop Keynote**: Impact of IPv6 on IoV – VoI. Latif Ladid (Université du Luxembourg)

QoS-oriented Management of Automobile Cruise Control Processes

A Adiththan and K Ravindran

Disseminating Large Data in Vehicular Ad Hoc Networks

Dp Tejas

An Android ITS Driving Safety Application Based on Vehicle-to-Vehicle (V2V) Communications

Seilendria Ardityarama Hadiwardoyo, Subhadeep Patra, Carlos Tavares Calafate, Juan-Carlos Cano and Pietro Manzoni

Secure and Anonymous Vehicle Access Control System to Traffic-Restricted Urban Areas

Magdalena Payeras-Capellà, Jordi Castellà-Roca, Macià Mut Puigserver, Alexandre Viejo and Carles Anglès-Tafalla

**Break**

Securing PKI Requests for C-ITS systems

Jean Philippe Monteuuis, Badis Hammi, Eduardo Salles Daniel, Houda Labiod, Rémi Blancher, Erwan Abalea and Brigitte Lonc

Dynamic Small Cell Management for Connected Cars Communications

Julio A. Sanguesa, Johann M. Marquez-Barja, Piedad Garrido and Francisco J. Martinez

Bio-inspired on demand routing protocol for Unmanned Aerial Vehicles

Bahloul Nour El Houda, Boudjit Saadi, Abdennebi Marwen and Boubiche Djallel Eddine

Closing Address

**WiMAN Workshop:**

**Chair: Duc Tran**

Welcome Address

Adaptive Burst Transmission Scheme for Wireless Sensor Networks

Zeeshan Ansar and Waltenegus Dargie

Wireless Interference Prediction for Embedded Health Devices

Jiangmin Yu, Michael Farcasin and Eric Chan-Tin

User Association Algorithm for Throughput Improvement in High-Density Wireless Networks

Omneya Issa, Ying Ge, Aizaz Chaudhry and Bernard Doray

**Break**

Enhanced AODV: Detection and Avoidance of Black Hole Attack in Smart Metering Network

Md Raqibull Hasan, Yanxiao Zhao, Guodong Wang, Yu Luo and Robb Winter

Analysis of Analog Network Coding noise in Multiuser Cooperative Relaying for Spatially Correlated

Environment

Sam Darshi and Samar Shailendra

On the Data Aggregation Point Placement in Smart Meter Networks

Guodong Wang, Yanxiao Zhao, Jun Huang and Robb Winter

**Break**

Incremental SDN-Enabled Switch Deployment for Hybrid Software-Defined Networks

Meitian Huang and Weifa Liang

Detecting Byzantine Attacks in Self-Organizable Networks by a Reputation-Based Cooperative Spectrum Sensing

Francesco Benedetto, Gaetano Giunta, A. Tedeschi and P. Coronas

Coverage Algorithms for WiFO: A Hybrid FSO-WiFi Femtocell Communication System

Yang Zhang, Yu-Jung Chu and Thinh Nguyen

Closing Address

**IoTPST Workshop:**

**Chair: Qian Chen**

Welcome Address

Template Attack vs. Stochastic Model: An Empirical Study on the Performances of Profiling Attacks in Real Scenarios

Hailong Zhang, Yongbin Zhou and Baofeng Li

Lightweight Framework for Reliable Job Scheduling in Heterogeneous Clouds

Muhammed Bello Abdulazeez, Pawel Garncarek and Prudence W.H. Wong

A Secure Two-Party Computation Based Privacy-Preserving Smart Metering Scheme

Haipeng Qu, Wenhong Sun, Xi-Jun Lin, Peng Shang, Xiaoshuai Zhang, Mingjian Jiang, Youxin Fang and Yanyong Zhu

**Break**

Equivalence Checking of Java Methods - Toward Ensuring IoT Dependability

Kozo Okano, Satoshi Harauchi, Toshifusa Sekizawa, Shinpei Ogata and Shin Nakajima

Preventing Misuse of Duplicate Certificates in IoT/M2M Systems

Yu-Hao Hsu and Fuchun Joseph Lin

Machine-learning Classifiers for Security in Connected Medical Devices

Sida Gao and Geethapriya Thamilarasu

**Break**

Privacy Risks for Multi-Criteria Collaborative Filtering Systems

Alper Yargıç and Alper Bilge

Security Analysis based on Petri Net for Separation Mechanisms in Smart Identifier Network

Linyuan Yao, Ping Dong, Xiaojiang Du and Hongke Zhang

Augmenting Security of Internet-of-Things Using Programmable Network-Centric Approaches: A Position Paper

Hammad Iqbal, Jamie Ma, Qing Mu, Venkatesh Ramaswamy, Gabby Raymond, Daniel Vivanco and John Zuena

An Overview of Access Control Mechanisms for Internet of Things

Kewei Sha and Mousa Alramadhan

Closing Address

13:30 - 17:00

**PSTBT Workshop:**

**Chair: Victoria Lemieux**

Welcome Address

CoC: Secure Supply Chain Management System based on Public Ledger

Lei Xu, Lin Chen, Zhimin Gao, Yang Lu and Weidong Shi

Long-term Public Blockchain: Resilience against Compromise of Underlying Cryptography

Masashi Sato and Shin'Ichiro Matsuo

Performance Analysis of Private Blockchain Platforms in Varying Workloads

Suporn Pongnumkul, Chaiyaphum Siripanpornchana and Suttipong Thajchayapong

Legally Speaking: Smart Contracts, Archival Bonds, and Linked Data

Darra Hofman

**Break**

**Workshop Keynote**: BSafe Network: Purpose, Development and Operation

Shin’Ichiro Matsuo (MIT Media Lab)

The application of blockchain technology in e-government in China

Heng Hou

Automated labeling of unknown contracts in Ethereum

Robert Norvill, Beltran Borja Fiz Pontiveros, Irfan Awan, Andrea Cullen and Radu State

Semantic Interoperability on a Blockchain: Reducing Uncertainty and Complexity in Value Exchange

Marek Laskowski and Henry Kim

Syscoin: A Peer-to-Peer Electronic Cash System with Blockchain-Based Services for E-Business

Jagdeep Sidhu

Closing Address

**NSAA Workshop:**

**Chair: Bill Chu**

Welcome Address

A New Approach to Online, Multivariate Network Traffic Analysis

Jinoh Kim and Alex Sim

A Study on Log Analysis Approaches Using Sandia Dataset

Mir Mehedi Pritom, Chuqin Li, Bill Chu and Xi Niu

The Design of Cyber Threat Hunting Games: A Case Study

Md Nazmus Sakib Miazi, Mir Mehedi Pritom, Mohamed Shehab, Bill Chu and Jinpeng Wei

**Break**

Comparison of Virtualization Algorithms and Topologies for Data Center Networks

Hanene Ben Yedder, Qingye Ding, Umme Zakia, Zhida Li, Soroush Haeri and Ljiljana Trajkovic

Concatenating Unprotected Internet of Things Network Event-Driven Data to Obtain End-User Information

Rahmira Rufus and Albert Esterline

Application of Learning Using Privileged Information(LUPI): Botnet Detection

Angelo Sapello, Constantin Serban, Ritu Chadha and Rauf Izmailov

**Break**

Hands-on Learning for Computer Network Security with Mobile Devices

Kai Qian, Yong Shi, Lixin Tao and Ying Qian

A Secure Mobile Cloud Photo Storage System

David Schwab, Li Yang, Kathy Winters, Matthew Jallouk, Emile Smith and Adam Claiborne

Closing Address

**IioTCom Workshop:**

**Chair:** **Ing. Patrick-Benjamin Bök**

Welcome Address

A Bridging VPN for Connecting Wireless Sensor Networks to Data Centers

Hiroaki Hata

Fault and Performance Management in Multi-Cloud based NFV using Shallow and Deep Predictive Structures

Lav Gupta, Mohammed Samaka, Raj Jain, Aiman Erbad, Deval Bhamare and H. Anthony Chan

Monotonic Optimization for Power Assignment in Two-Way Cognitive Radio Networks with Shared-band Amplify-and-Forward Relays

Udit Pareek and Daniel Lee

**Break**

New locating method based on improved Niculecu Dv-distance

Degan Zhang, Yameng Tang and Jie Chen

Video Streaming Schemes for Industrial IoT

Hajime Kanzaki, Kevin Schubert and Nicholas Bambos

Analysis of the Scope of Dynamic Power Management in Emerging Server Architectures

Markus Hähnel, Waltenegus Dargie and Alexander Schill

Closing Address