

NDNcomm 2018, NIST, Gaithersburg, MD

Wednesday September 19, 2018

- 08:00am Registration
- 09:00am **Opening Session:**
- NIST Cybersecurity for IoT Program
TBD (NIST)
 - A New Way to Support Security
Alex Afanasyev (Florida International University)
Lixia Zhang (University of California, Los Angeles)
- 10:00am **Session 1- NDN support for computing**
- Towards an Augmented Reality Browser using NDN
Jeff Burke (UCLA REMAP)
Peter Gusev (UCLA REMAP)
Jeff Thompson (UCLA REMAP)
 - Edge Computing Over Named Data Networking
Abderrahmen Mtibaa (New Mexico State University)
Satyajayant Misra (New Mexico State University)
Reza Tourani (New Mexico State University)
Jeff Burke (UCLA)
Lixia Zhang (UCLA)
 - Compute-First-Network for NDN
Asit Chakraborti (Huawei Technologies)
Dirk Kutscher (Huawei Technologies)
He Jianfei (Huawei Technologies)
Cedric Westphal (Huawei Technologies)
Syed Obaid Amin (Huawei Technologies)
- 11:00am Break
- 11:15am **Session 2- IoT and Security**
- NDNofT: A Framework for Named Data of Things
Zhiyi Zhang (UCLA)
Yanbiao Li (UCLA)
Tianyuan Yu (Sichuan University)
Alex Afanasyev (Florida International University)
Lixia Zhang (UCLA)
 - Blockchain-based Decentralized Public Key Management for Named Data Networking
Kan Yang (University of Memphis)
Jobin J. Sunny (St. Jude Children's Research Hospital)
Lan Wang (University of Memphis)
 - Distributed Ledger over NDN for A Real-world Solar System
Zhiyi Zhang (UCLA)
Vishrant Vasavada (UCLA)
Randy King (Operant Solar)
Lixia Zhang (UCLA)
- 12:15pm Lunch

- 1:30pm **Panel 1: Security and Privacy in NDN: An Edge Computing Perspective**
Chair: Jay Misra (New Mexico State University)
- 2:30pm **Lightning Talks**
- 4:00pm **Posters and Demos**
- 6:00pm Day 1 Closing

Thursday September 20, 2018

- 08:00am Registration
- 08:30am **Community Feedback**
- 09:00am **Session 3- NDN for Vehicular Networks**
- Vehicular Named Data Networking
Dennis Grewe (Robert Bosch GmbH)
Claudio Marxer (University of Basel)
Christopher Scherb (University of Basel)
Marco Wagner (Robert Bosch GmbH)
Christian Tschudin (University of Basel)
 - Connectivity and Location-aware Routing Scheme (CLRS) for Connected and Autonomous Vehicles (CAVs)
Muktadir Chowdhury (University of Memphis)
Junaid Ahmed Khan (University of Memphis)
Lan Wang (University of Memphis)
 - Data-Centric MAC for Robust Multicast in Vehicular Networks
Mohammed Elbadry (Stony Brook University)
Bing Zhou (Stony Brook University)
Fan Ye (Stony Brook University)
Peter Milder (Stony Brook University)
YuanYuan Yang (Stony Brook University)
- 10:00am **Session 4- NDN in Mobile AdHoc Networks**
- Peer-to-Peer File Sharing in Mobile Ad hoc Networks over NDN
Spyridon Mastorakis (UCLA)
Tianxiang Li (UCLA)
Lixia Zhang (UCLA)
 - Distributed Dataset Synchronization in Mobile Ad Hoc Networks over NDN
Tianxiang Li (UCLA)
Spyridon Mastorakis (UCLA)
Xin Xu (UCLA)
Haitao Zhang (UCLA)
Lixia Zhang (UCLA)
 - Toward Multi-Hop Long-Range D2D Communication via Information Centric Ad Hoc Networks
Yaoqing Liu (Clarkson University)
Anthony Dowling (Clarkson University)
- 11:00am Break
- 11:15am **Panel 2: Edge Computing: Shaping the Named Data Edge**
Chair: Christian Tschudin (University of Basel)
- 12:15pm Lunch

- 1:30pm **Session 5- Routing and Forwarding**
- High-Speed NDN-DPDK Forwarder
Junxiao Shi (NIST)
Lotfi Benmohamed (NIST)
 - A New Way of Traffic Engineering in NDN
Klaus Schneider (The University of Arizona)
Beichuan Zhang (The University of Arizona)
Lotfi Benmohamed (NIST)
 - NDNCONF: Network Configuration Management System for NDN based on NETCONF protocol
Rajender Kumar (Florida International University)
Alexander Afanasyev (Florida International University)
- 2:30pm **Session 6 -NDN support for new deployments**
- NDN Supporting Ultra-Dense Networks
Xiaoyan Hong (University of Alabama)
Pawan Subedi (University of Alabama)
 - Automated Neighbor Discovery to Run NDN Anywhere
Arthi Padmanabhan (UCLA)
Lan Wang (University of Memphis)
Lixia Zhang (UCLA)
 - NDN for Data Intensive Science
Susmit Shannigrahi (Colorado State University)
- 3:30pm Closing

Posters:

- NDN for Public Safety Deployable Networks
Davide Pesavento (NIST)
Junxiao Shi (NIST)
Edward Lu (NIST)
Lotfi Benmohamed (NIST)
Maxwell Maurice (NIST)
- Bootstrapping Trust in NDN-Based Vehicular Network Using SWIFT Trust
Sanjeev Kaushik Ramani (Florida International University)
Manusri Viswanath (Rensselaer Polytechnic Institute)
Jalena Jones (Claflin University)
Alex Afanasyev (Florida International University)
- Real-Time Data Retrieval in Named Data Networking
Spyridon Mastorakis (UCLA)
Peter Gusev (UCLA REMAP)
Alexander Afanasyev (FIU)
Lixia Zhang (UCLA)
- Get an NDN certificate with NDN CERT protocol
Zhiyi Zhang (UCLA)
Alex Afanasyev (Florida International University)

- Named-based Access Control
 - Zhiyi Zhang (UCLA)
 - Yingdi Yu (UCLA)
 - Alex Afanasyev (Florida International University)
 - Lixia Zhang (UCLA)
- Upcoming Changes in NDN Protocol
 - Alex Afanasyev (Florida International University)
- Performance evaluation of the NDN-DPDK forwarder
 - siham khoussi (NIST)
 - Junxiao Shi (NIST)
 - Ayoub Nouri (Grenoble University)
- IoT+NDN+Wireless: Experimental Insights from Using 802.11 Infrastructure and Ad-hoc Modes
 - Travis Machacek (New Mexico State University)
 - Abderrahmen Mtibaa (New Mexico State University)
 - Reza Tourani (New Mexico State University)
 - Satyajayant Misra (New Mexico State University)
- Leveraging Named Data Networking in Edge Computing
 - Rehmat Ullah (Hongik Univeristy Sejong Campus, South Korea)
 - Byung-Seo Kim (Hongik Univeristy Sejong Campus, South Korea)
- An Overlay NDN Architecture for Application-Driven Satellite-Terrestrial Integration
 - Yating Yang (Beijing Institute of Technology)
 - Tian Song (Beijing Institute of Technology)
- Named Query Framework for Named Data Networking of Things
 - Muhammad Atif Ur Rehman (Hongik University Sejong Campus, South Korea)
 - Rehmat Ullah (Hongik University Sejong Campus, South Korea)
 - Byung-Seo Kim (Hongik University Sejong Campus, South Korea)
- ICE-AR Application Progress
 - Peter Gusev (UCLA REMAP)
- Optimal Cache Allocation under Network-Wide Capacity Constraint
 - Van Sy Mai (NIST)
 - Stratis Ioannidis (Northeastern University)
 - Davide Pesavento (NIST)
 - Lotfi Benmohamed (NIST)
- Distributed Network Measurement Protocol (DNMP): A Secure Role-Based Approach
 - Kathleen Nichols (Pollere, Inc)

Demos:

- NIST IoT Testbed
 - Edward Lu (NIST)
 - Junxiao Shi (NIST)
 - Davide Pesavento (NIST)
 - David Cooper (NIST)
 - Kerry McKay (NIST)
 - Lotfi Benmohamed (NIST)
- PSync deployment on IoT sensor testbed
 - Ashlesh Gawande (University of Memphis)
 - Lan Wang (University of Memphis)

- Vehicular Named Data Networking
 - Dennis Grewe (Robert Bosch GmbH)
 - Claudio Marxer (University of Basel)
 - Christopher Scherb (University of Basel)
 - Marco Wagner (Robert Bosch GmbH)
 - Christian Tschudin (University of Basel)
- HomeCam Browser-based Home Surveillance Camera
 - Junxiao Shi (NIST)
- NDN Supporting Ultra-Dense Networks
 - Xiaoyan Hong (University of Alabama)
 - Pawan Subedi (University of Alabama)
- A Raspberry Pi Based Data-Centric MAC for Robust Multicast in Vehicular Networks
 - Mohammed Elbadry (Stony Brook University)
 - Bing Zhou (Stony Brook University)
 - Fan Ye (Stony Brook University)
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