

40th IEEE Sarnoff Symposium, NJIT, Newark, NJ, Sep. 23-24, 2019  
SCHEDULE OF KEYNOTE AND INVITED PRESENTATIONS

MONDAY, SEPTEMBER 23, 2019

08:00-08:45 **Breakfast & Registration**

08:45-09:00 **Opening Remarks and Welcome Messages**

09:00-09:20 **Optical Stealth Communication based on Amplified Spontaneous Emission Noise**

Ben Wu, Assistant Professor  
*Rowan University*

09:20-09:40 **Toward Cyber-Physical/Human Systems that are Responsive and Scalable**

Jing Li, Assistant Professor, Department of Computer Science  
*New Jersey Institute of Technology*

09:40-10:00 **Deep Graph Learning: Techniques and Applications**

Haifeng Chen, Head of Data Science and Systems Research Department  
*NEC Labs America*

10:00-10:20 **Combinatorial Sleeping Bandits with Fairness Constraints**

Bo Ji, Assistant Professor, Department of Computer and Information Sciences  
*Temple University*

09:00– 10:20 **Technical Program I – Applications**

10:20-10:30 **Coffee Break**

10:30-11:00 **Keynote Presentation**

**Data for Good: Data Science at Columbia**

Jeannette M. Wing, Avaneessians Director of the Data Science Institute and Professor of  
Computer Science  
*Columbia University*

11:00-11:20 **Achieving Low Latency Mobile Edge Cloud Services in Next-Generation Wireless Networks**

Dipankar Raychaudhuri, Distinguished Professor, Electrical & Computer Engineering and  
Director, WINLAB (Wireless Information Network Lab)  
*Rutgers University*

11:20-11:40 **Programming tomorrow's 5G networks today – the anatomy of a flexible RAN Intelligent  
Controller (RIC) and its applications**

Rittwik Jana  
Director of Inventive Science  
*AT&T Labs Research*

11:40-12:00 **Optimizing Service Delivery at the Mobile Network Edge**

Leandros Tassioulas  
John C. Malone Professor of Electrical Engineering  
*Yale University*

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12:00-1:00 **Lunch & Networking**

**Lunch Talk: What did he have in Mind? David Sarnoff's Visions for Wireless Communications**

Alexander B. Magoun, Outreach Historian - IEEE History Center  
*Stevens Institute of Technology*

1:00-1:30 **Keynote Presentation**

**New value creation with the Future X Network**

Peter Vetter  
Head of Access Research lab  
*Nokia Bell Labs*

1:30-1:50 **Network Orchestration for 5G**

Raquel Morera, Associate Fellow  
*Verizon*

1:50-2:10 **Next Generation Automation: Enabling the acceleration of Advanced Technology Adoption**

Cengiz Alaettinoglu, Chief Technology Officer of Blue Planet  
*Ciena*

2:10-2:30 **Challenges and New Technologies for 5G Millimeter Wave Cellular Systems**

Sundeep Rangan, Associate Director  
*NYU Wireless*

2:30-2:50 **Reconfigurable Distributed MIMO for Physical-layer Security in Mobile Networks**

Zygmunt J. Haas, Professor and Distinguished Chair in Computer Science  
*University of Texas, Dallas*

2:50-3:10 **Leveraging Quantum Annealing for Large MIMO Processing in Centralized Radio Access Networks**

Kyle Jamieson, Associate Professor, Dept. of Computer Science  
*Princeton University*

3:10-3:30 **Eliminate Operational Legacy. Forever.**

Sasha Ratkovic, Co-founder and CTO  
*Apstra*

3:30-3:40 **Coffee Break**

3:40-4:00 **Chameleon: A Scientific Instrument for Computer Science and Networking Research at Scale**

Paul Ruth, Senior Research Scientist at RENCI  
*University of North Carolina-Chapel Hill*

4:00-4:20 Michael J. Freedman

Professor, Computer Science Department & Co-founder and CTO of Timescale  
*Princeton University*

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4:20-4:40 **Integrated Access and Backhaul in 5G – Challenges and Opportunities**

Navid Abedini, Senior Staff Systems Engineer  
*Qualcomm Technologies Inc.*

4:40-5:00 **5G Virtual RAN Network Architectures – the Realities**

Olufemi (Femi) Adeyemi, Lead LTE Solutions Architect  
*Fujitsu Network Communications*

3:40-5:00 **Technical Program II – Resource Allocation**

**TUESDAY, SEPTEMBER 24, 2019**

08:00-09:00 **Breakfast & Registration**

09:00-09:20 **Building Fast and Reliable Services for 5G Networks with Derecho**

Edward Tremel, Department of Computer Science  
*Cornell University*

09:20-09:40 **A Closer Look at NFV Execution Models in Multi-Core Commodity Servers**

Zhi-Li Zhang, Professor, Department of Computer Science and Engineering  
*University of Minnesota*

09:40-10:00 **Edge-supported Drones in the Construction Industry**

Padmanabhan (Babu) Pillai  
Senior Research Engineer at Intel Science and Technology Center on Cloud Computing  
*Intel Labs*

10:00-10:20 Rudra Dutta

Professor, Department of Computer Science  
*North Carolina State University*

09:00– 10:20 **Technical Program III – Wireless Networks**

10:20-10:30 **Coffee Break**

10:30-11:00 **Keynote Presentation**

**5G and the Role of AI**

Jennifer Yates, Assistant Vice President, Inventive Science  
*AT&T Labs*

11:00-11:20 **Mobile Transport for 5G RAN**

Rajesh Chundury, Principal Solutions Manager  
*Ericsson*

11:20-11:40 **Driving Community Engagement as Part of Open Innovation**

Nithya A. Ruff, Head of Open Source Practice

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*Comcast*

**11:40-12:00 Evolution of Cyber-Physical Security**

Jonathan M. Smith, Professor of Computer and Information Science & Olga and Alberico Pompa Professor of Engineering and Applied Science  
*DARPA & University of Pennsylvania*

**12:00-1:00 Lunch & Networking**

**Lunch Talk: The Origins of Silicon Valley: Why and How It Happened**

Paul Wesling, Life Fellow of the IEEE

**1:00-1:30 Keynote Presentation**

**Practical Steps Towards Self-Driving Networks**

Kireeti Kompella, Senior Vice President and Chief Technology Officer (CTO)  
*Juniper Networks*

**1:30-1:50 Nagesh Nandiraju**

Executive Director of Network Services and Software  
*Comcast*

**1:50-2:10 Key Enablers and Obstacles to a successful 5G deployment**

Mark T. Watts, Distinguished Member of the Technical Staff Architect  
*Verizon Communications*

**2:10-2:30 5G: Millimeter waves, millisecond delays?**

Shivendra S. Panwar, Professor, Electrical and Computer Engineering Department  
Tandon School of Engineering (Polytechnic Institute)  
*New York University*

**2:30-2:50 Federated Learning for Networking**

Anwar Walid, Director of Network Intelligence and Distributed Systems Research & Distinguished Member of the Research Staff  
*Nokia Bell Labs*

**2:50-3:10 Steve Vandris, Director for NFV Solutions Planning, Datacenter Solutions Group**

*Intel Corporation*

**3:10-3:30 Challenges and Opportunities of opening the RAN interfaces**

Haseeb Akhtar, Principal Solutions Consultant  
*Ericsson*

**3:30-3:40 Coffee Break**

**3:40-5:00 Technical Program IV – Security & Automation**

**5:00- 5:15 Closing Remarks**

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