

# **2023 IEEE 29th International Symposium on Local and Metropolitan Area Networks (LANMAN 2023)**

**London, United Kingdom  
10 – 11 July 2023**



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# IEEE LANMAN 2023

The 29th IEEE International Symposium on Local and Metropolitan Area Networks  
10-11 July 2023 – London, United Kingdom

Day 1 – Monday July 10, 2023	
Time	Event
09:30 - 10:00	Opening and Welcome
10:00 - 11:00	Keynote #1: <b>Open 6G: Toward a Reference Architecture for Programmable and AI-Driven NextG Open RAN Systems</b> Tommaso Melodia (Northeastern University, USA)
11:30 - 12:30	<b>Session 1: Security and Privacy</b>  <b>1. You Can't See Me: Providing Privacy in Vision Pipelines via Wi-Fi Localization...1</b> Shazal Irshad (University of Colorado Boulder, USA); Ria Thakkar (Google, USA); Eric Rozner (University of Colorado Boulder, USA); Eric Wustrow (University of Colorado, USA)  <b>2. Real-Time Cyberattack Detection with Offline and Online Learning...7</b> Erol Gelenbe (Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Poland & University of Cote d'Azur, France); Mert Nakip (Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Poland)  <b>3. Federated Learning-based Vehicle Trajectory Prediction against Cyberattacks...13</b> Zhe Wang (King's College London, United Kingdom (Great Britain)); Tingkai Yan (Imperial College London, United Kingdom (Great Britain))
14:00 - 15:30	<b>Session 2: Network Architecture</b>  <b>4. Going Dark: A Software "Light Switch" for Internet Servers...19</b> Kristjon Ciko, Michael Welzl and Peyman Teymoori (University of Oslo, Norway)  <b>5. SDN-Enabled Distributed Access Architecture Cable Networks...25</b> Sudhanshu Naithani, Cormac J. Sreenan and Ahmed H. Zahran (University College Cork, Ireland)

	<p><b>6. LETHE: Combined Time-to-Live Caching and Load Balancing on the Network Data Plane...31</b> Nehal Baganal-Krishna, David Munstein and Amr Rizk (University of Duisburg-Essen, Germany)</p> <p><b>7. A Novel First Random Fit (FRF): Dispersion Aware Approach using Heuristic and ILP in Elastic Optical Network (EON)...37</b> Vasundhara V and Abhilash Mandloi Mandloi. (SVNIT SURAT, India); Mehul C Patel (Sardar Vallabhbhai National Institute of Technology, India)</p>
16:00 - 16:45	<p>Invited Talk #1: <b>Accelerating Edge Computing using In-Network Computing</b> Vishal Shrivastav (Purdue University)</p>

Day 2 – Tuesday, July 11, 2023	
Time	Event
09:30 - 10:30	<p>Keynote #2: <b>Herding Cats: Orchestration and the Edge</b> Jörg Ott (Technical University of Munich, Germany)</p>
11:00 - 11:30	<p><b>Poster Session</b></p>

<p>11:30 - 12:30</p>	<p style="text-align: center;"><b>Session 3: Routing</b></p> <p><b>1. Performance Evaluation of DTN Routing Protocols for Drone Swarms Using a Web-Based Simulator...43</b> Dauren Beisenkhanov, Refik Caglar Kizilirmak and Ikechi Augustine Ukaegbu (Nazarbayev University, Kazakhstan); Tuncer Baykas (Kadir Has University, Turkey)</p> <p><b>2. Scalable Content-centric Routing for Hybrid ICN...48</b> Sergi Reñé (University College of London, United Kingdom (Great Britain)); George Pavlou (University College London, United Kingdom (Great Britain)); Onur Ascigil (Lancaster University, United Kingdom (Great Britain))</p> <p><b>3. Practical Sliding Window Recoder: Design, Analysis, and Usecases...54</b> Vipindev Adat Vasudevan (Massachusetts Institute of Technology, USA); Tarun Soni (Northrop Grumman Corporation, USA); Muriel Médard (MIT, USA)</p>
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<p>16:00 - 16:45</p>	<p style="text-align: center;">Invited Talk #2: <b>Cost-Aware Machine Learning on Network Traffic</b> Francesco Bronzino (École Normale Supérieure de Lyon)</p>
<p>16:45– 16:55</p>	<p style="text-align: center;">Closing Remarks</p>

## **Additional Papers**

### **Implementation of Opportunistic and Scheduled Routing Algorithms for DTN based Vehicular Networks...84**

Adil Kucherbayev (Nazarbayev University, Kazakhstan); Refik Kizilirmak (Nazarbayev University, Kazakhstan)

### **Delay Analysis of Redundant TSN-based Industrial Networks using Network Calculus...86**

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### **Cubic Local Loss Recovery vs. BBR on (Satellite) Internet Paths...89**

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