

## Monday, June 22, 2026

08.30-09.00: Registration

09.00-09.30: Welcome and Introduction (SC Chair, TPC Chairs, General Chairs)

09.30-10.30: Keynote (Symeon Chatzinotas, “6G NTN Communication and Edge Computing for Satellite IoT”)

10.30-11.00: Coffee Break

### **11.00-13.05: Session 1 (Wireless Networking and LoRaWAN Systems)**

Madhushanka Padmal and Dilushi Piumwardane (Uppsala University, Sweden); Thiemo Voigt (RISE Computer Science & Uppsala University, Sweden), **“Chord: Multi-Tone Carrier-Assisted Querying for Analog Backscatter Systems”**

Aitian Ma and Dongsheng Luo (Florida International University, USA); Ali Maatouk and Rex Ying (Yale University, USA); Mo Sha (Florida International University, USA), **“Configuring Industrial Wireless Mesh Network via Dual-Mind Reasoning”**

Jean Tondoy Rodriguez, Dipan Sadekeen, Mo Sha and Mohammad Ashiqur Rahman (Florida International University, USA), **“Leveraging LLMs to Close Simulation-to-Reality Gap in Wireless Mesh Network Configuration”**

Andrea De Simone, Giovanna Turvani, Mariagrazia Graziano and Fabrizio Riente (Politecnico di Torino, Italy), **“Delta-Based Compression and Multicast Synchronization for Efficient LoRaWAN FUOTA”**

Juan Aznar Poveda, Stefan Pedratscher, Abolfazl Younesi and Miriam Leitner (University of Innsbruck, Austria); Laura Acosta-García (Centro Tecnológico de IA Vicomtech, Spain); Thomas Fahringer (University of Innsbruck, Austria); Antonio-Javier Garcia-Sanchez and Joan Garcia-Haro (Technical University of Cartagena, Spain), **“LEAP: An Adaptive Transmission Strategy for Energy-Efficient Positioning in LoRaWAN Networks”**

13.05-14.00: Lunch

### **14.00-16.20: Session 2 (Edge AI Platforms and Runtime Systems)**

Nathan Ng and Walid A. Hanafy (University of Massachusetts Amherst, USA); Prashanthi Kadambi (Indian Institute of Science, India); Balachandra Sunil and Ayush Gupta (University of Massachusetts Amherst, USA); David Irwin (University of Massachusetts, Amherst, USA); Yogesh Simmhan (Indian Institute of Science, India); Prashant Shenoy (University of Massachusetts, Amherst, USA), **“Collaborative Processing for Multi-Tenant Inference on Memory-Constrained Edge TPUs”**

Animesh Narayan Dangwal, Ria Singh, Shruthi Unnithan, Karen Yuan, Emily Zheng and Chandra Krintz (University of California, Santa Barbara, USA); Rich Wolski (UC Santa Barbara, USA), **“Reliable Unreliability in Edge Deployments”**

Marlon Etheredge, Juan Aznar Poveda, David Gstir, Stefan Pedratscher and Thomas Fahringer (University of Innsbruck, Austria), **“Towards High-Level Declarative Infrastructure Description for the IoT-Edge-Cloud Continuum”**

Antoine Lavandier (Inria, France); Bastien Buil (CNAM & Orange Research, France); Chrystel Gaber (Orange Research, France); Emmanuel Baccelli (INRIA, France), **“treVM: Tiny Rust Embedded Virtual Machines with WASM on Variable Resource-Constrained Hardware”**

Chanh Le Tan Nguyen (Umeå University, Sweden); Erik Elmroth (Umeå University and Elastisys, Sweden), **“Trust-Aware Routing for Distributed Generative AI Inference at the Edge”**

Hasan Mahmood Aminul Islam, Mahamudur Rahman Maharaz, Faisal Ahmed, Mahir Faysal Haque Dipto and Md. Minhajul Haque Shafin (East West University, Bangladesh); Michael Georgiades (2 Danais Avenue & Neapolis University, Cyprus), **“Towards a Protocol-Agnostic Universal Middleware for IoT with Edge Intelligence” (short paper)**

16.20-16.50: Coffee Break

### **16.50-18.10: Session 3 (Federated and Distributed Learning for IoT)**

Merve Saimler (Ericsson Research, Turkey); Mohaned Chraiti and Ozgur Ercetin (Sabanci University, Turkey), **“High-Fidelity Network Management for Federated AI-as-a-Service: Cross-Domain Orchestration” (short paper)**

Angela Cortecchia (University of Bologna, Italy); Davide Domini (Alma Mater Studiorum - Università di Bologna, Italy); Giovanni Ciatto, Roberto Casadei and Danilo Pianini (University of Bologna, Italy); Mirko Viroli (Alma Mater Studiorum - Università di Bologna, Italy), **“Flexible Distributed Particle Filtering for the Internet of Things via Aggregate Computing”**

Shagufta Henna and Kathy Bannigan (Atlantic Technological University, Ireland), **“Self-Supervised Federated Learning for Zero-Day Intrusion Detection in Heterogeneous Industrial IoTs”**

Michele Fiori, Gabriele Civitarese and Marco Colussi (University of Milan, Italy); Claudio Bettini (Università degli Studi di Milano, Italy), **“Improving Zero-Shot ADL Recognition with Large Language Models Through Event-Based Context and Confidence”**

### **18.10-19.10: Oral Poster/Demo Session**

19.10-20.10: Welcome Reception

**Tuesday, June 23, 2026**

08.30-09.00: Registration

09.00-10.00: Keynote (Tarek Abdelzaher, “The Bottlenecks in Advancing Foundation Models for Internet of Things (IoT) Applications”)

10.00-10.30: Coffee Break

**10.30-13.00: Session 4 (Sensing for Agriculture, Environment, and Industry)**

Muhammad Saad Ali and Daanish U Khan (Lahore University of Management Sciences, Pakistan); Laiba Intizar Ahmad (Lahore University of Management, Pakistan); Umer Irfan, Maryam Mustafa and Naveed Anwar Bhatti (Lahore University of Management Sciences, Pakistan); Muhammad Hamad Alizai (LUMS, Pakistan), **“Kissan-Dost: Bridging the Last Mile in Smallholder Precision Agriculture with Conversational IoT”**

Prasenjit Karmakar and Karthik Reddy (IIT Kharagpur, India); Sandip Chakraborty (Indian Institute of Technology Kharagpur, India), **“Heterogeneous Ensemble Learning for Fault Diagnosis in Smart Manufacturing”**

Farzana Haque Chowdhury and John Violos (Ecole de Technologie Superieure, Canada); Aris Leivadeas (École de Technologie Supérieure, Canada), **“PoHAR: Understanding Hyperlocal Human Activities with Pollution Sensor Networks”**

Yinze Li and Van Vu Bui (KU Leuven, Belgium); Samer Nasser and Henrique Duarte Moura (University of Antwerp, Belgium); Ritesh Kumar Singh (Imec University of Antwerp, Belgium); Sam Michiels (KU Leuven, Belgium); Jeroen Famaey (University of Antwerp - imec, Belgium); Danny Hughes (Katholieke Universiteit Leuven, Belgium), **“BEAVER: Battery-Free Edge AI for Visual Environmental Recognition”**

Guillermo Benito-Calvino, Ahmed Boubrima, Alessandro Renzaglia and Herve Rivano (Inria, INSA Lyon, CITI, UR3720, 69621 Villeurbanne, France); Zhambyl Shaikhanov (University of Maryland, College Park, USA), **“ORION: Olfactory and RF Multimodal Sensing for UAV-Based Localization of Disaster Victims”**

Dan-Cristian Ploesteanu, Arda Satıcı, Deepak Yeleshetty and Rob Bemthuis (University of Twente, The Netherlands), **“Recognising Construction Vehicle Activity in Low-Frequency Surveillance Imagery and Its Association with Local Air Quality” (short paper)**

13.00-14.00: Lunch

#### **14.00-15.30: Session 5 (Multimodal Health, Biometrics, and Video Analytics)**

Duc Van Le and Smayan Gupta (University of New South Wales, Australia); Fariza Rashid (University of Sydney, Australia); Rahat Masood (University of New South Wales & School of Electrical Engineering and Computer Science, Australia); Gustavo Batista (University of New South Wales, Australia); Suranga Seneviratne (The University of Sydney, Australia); Aruna Seneviratne (University of New South Wales, Australia), **“Task-Driven Diffusion Denoising for Robust Multimodal Behavioural Biometrics”**

Francesco Betti Sorbelli (University of Perugia, Italy); Papiya Das (University of Florence, Italy); Lorenzo Palazzetti (Penn State University, USA); Cristina M. Pinotti (University of Perugia, Italy), **“Can a Classifier Replace the Human? Box-Level Surrogates for Low-Annotation Object Detection”**

Weiyang Qian and Rodolfo W. L. Coutinho (Concordia University, Canada); Azzedine Boukerche (University of Ottawa, Canada), **“Modeling and Performance Evaluation of DNN Splitting and Intelligent Offloading for AI-Based IoT Video Analytics”**

Rohith Prakash (University of Greenwich, United Kingdom (Great Britain)); Naghmeh Moradpoor (Edinburgh Napier University, United Kingdom (Great Britain) & University of Greenwich, United Kingdom (Great Britain)); Leandros A. Maglaras (Edinburgh Napier University, United Kingdom (Great Britain)), **“Cybersecurity Simulation and Testing of Border Checkpoint Operations Using Digital Twin Technology” (short paper)**

16.00-22.00: Excursion to the Golden Ring and Banquet (buses depart at 16.00)

**Wednesday, June 24, 2026**

08.30-09.00: Registration

09.00-10.00: Keynote (Ian Akyildiz, “From Digital Twins to Cognitive Twins: Closing the Metacognitive Loop in Distributed Sensor Networks”)

10.00-10.30: Coffee Break

**10.30-13.00: Session 6 (“UAV, Satellite, and Swarm Intelligence”)**

Md Tahmid Rashid (Illinois State University, USA); Md Jawad Siddique (Southern Illinois University, Carbondale, USA); Abdus Shaqur (Uttara University, Bangladesh), **“OASIS: Occlusion Aware Semantic Inference and Sensing for Fused UAV-Satellite Driven Disaster Damage Assessment”**

Kriti Ghosh, Braveenan Sritharan, Lakshmi Ramaswamy, In Kee Kim, Suchendra M Bhandarkar, Deepak Mishra, Aditya Joshi and Nancy O'Hare (University of Georgia, USA), **“Eco-NeRF: Energy-Aware Cloud-to-Edge Training and Deployment of Neural Radiance Fields for Satellite IoT”**

Alexandre Abadie, Filip Maksimovic, Geovane Fedrecheski, William Takeshi-Pereira and Mališa Vučinić (Inria, France); Danny Hughes (Katholieke Universiteit Leuven, Belgium); Roderich Gross (The University of Sheffield, United Kingdom (Great Britain)); Thomas Watteyne (Inria, France), **“SwarmIT: Turn Your Collection of Robots into a Robust and Programmable Swarm Testbed”**

Amir Taherkordi, Emad Hammami and Peiyuan Guan (University of Oslo, Norway), **“UAMBIT: Byte-Budgeted Update Compression with Error-Feedback for Federated Learning”**

Chen Jiang, Chien-Chia Huang, Gia Bao Thieu, Yitao Tang, Guillermo Payá-Vayá and Andres Gomez (TU Braunschweig, Germany), **“A Low-Power Dual-Processor Platform for Snapshot GNSS with Edge-Based GPU Acceleration”**

13.00-14.00: Lunch

**14.00-16.00: Session 7 (“Smart Homes, Privacy, and Secure IoT”)**

Tina Rezaei and Suzan Bayhan (University of Twente, The Netherlands); Etienne Riviere (UCLouvain, Belgium); Andrea Continella (University of Twente, The Netherlands); Roland van Rijswijk-Deij (University of Twente & NLnet Labs, The Netherlands), **“AdaptHub: An Adaptive, User-Centric, and Privacy-Driven Smart Home Hub”**

Chun Yin Chiu (King's College London, University of London, United Kingdom (Great Britain)), **“RoutineShield: Routine-Level Privacy for Smart Homes via Semantic DP Traffic Shaping”**

Mohammad Mahdi, Ahmad Alqattan and Ameer Mohammed (Kuwait University, Kuwait), **“Anonymous Command Authorization for IoT Devices Using Zero-Knowledge Proofs”**

Ahmad Alqattan and Mohammad Mahdi (Kuwait University, Kuwait); Tassos Dimitriou (Kuwait University, Kuwait), **“Server-Assisted Oblivious Key Distribution for Resource-Constrained Post-Quantum IoT Devices (SAOKD)”**

Victor Romero II (Nara Institute of Science and Technology, Japan & University of the Philippines, Philippines); Tomokazu Matsui (Nara Institute of Science and Technology, Japan); Yuki Matsuda (Okayama University, Japan); Hirohiko Suwa and Keiichi Yasumoto (Nara Institute of Science and Technology, Japan), **“Schema-Grounded Agents for Enabling Emergent Multi-Device Reasoning in Smart Environments”**

16.00-16.30: Coffee Break

### **16.30-18.10: Session 8 (“Efficient IoT Systems, Mobility, and Perception”)**

Aakriti Jain (The University of Texas at Dallas, USA); Prashant Modekurthy (University of Nevada Las Vegas, USA); Abusayeed Saifullah (University of Texas at Dallas, USA); Marco Brocanelli (The Ohio State University, USA), **“Co-Scheduling of Charging and Transmission in Supercapacitor-Powered IoT”**

Muthucumar Maheswaran (McGill University, Canada), **“Virtual Space Switching: Fast Mobility Handoffs for Situated Intelligence”**

Daniel Szafranski and Moosa Sharafeldin (Clausthal University of Technology, Germany); Andreas Reinhardt (TU Clausthal, Germany), **“Using Geodata for Improved Path Loss Estimation: Insights from a LoRaWAN Field Study”**

Kazi Mohammad Abidur Rahman, Davis Rakhshan and Philipp Luetke (Hamburg University of Technology, Germany); Laura Harms (Kiel University, Germany); Ulf Kulau (Hamburg University of Technology, Germany & DSI Aerospace Technology, Germany), **“At the Edge of the Heart: ULP FPGA-Based CNN for on-Device Cardiac Feature Extraction in Smart Health Sensors for Astronauts”**

18.10-18.30: Final Remarks and Closing

(Regular papers: 25 minutes

Short papers: 15 minutes

Poster/Demo papers: 5 minutes)