



Conference Program

WiMob2026

Avignon, France





Table of Content

Table of Content	1
Welcome	2
Wednesday, October 14, 2026	9
Thursday, October 15, 2026	22
Friday, October 16, 2026.....	30
Organizing Committee	38



Welcome

It is our great pleasure to welcome you to the 22nd International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob'2026) in Avignon, France. Since the first edition of WiMob in 2005, the IEEE International Conference on Wireless and Mobile Computing, Networking and Communications has been the key forum for the exchange of knowledge and experience among researchers, developers and practitioners of wireless and mobile technology. For twenty-one years, the International IEEE WiMob conference has provided unique opportunities for researchers and developers to interact, share new results, show live demonstrations, and discuss emerging directions in Wireless Communications, Next Generation Mobile Networking, Artificial Intelligence based Communications & Networking, Blockchain and Cryptocurrency in Mobile Networks, and Trust, Security and Privacy in Wireless and Mobile Networks.

Putting together WiMob 2026 has been a team effort. First of all, we would like to thank all the authors who submitted papers (main conference and jointly organized workshops). Furthermore, we would like to express our gratitude to the program committee and to all external reviewers, who worked very hard on reviewing papers and providing suggestions for their improvements.

The technical program of the main conference WiMob consists of 65 full papers constituting 35% of acceptance ratio and 8 short papers and 2 Demo papers. Moreover, we are proud and thankful of having 2 renowned keynote speakers at the 2026 edition of WiMob: – Professor Sinem Coleri, Koc University, Turkey, and – Dr. Amira Alloum, Qualcomm France.

We would also like to thank the organizers of all workshops jointly organized with WiMob 2026:



- Nineteenth International Workshop on Selected Topics in Wireless and Mobile Computing (STWiMob 2026): Anna Maria Vegni (Roma Tre University, Italy), Abderrahim Benslimane (University of Avignon, France) and Cristina López Bravo (Universidade de Vigo, Spain).
- Fourteenth International Workshop on e-Health Pervasive Wireless Applications and Services (eHPWAS'26): Tayeb Lemlouma (IRISA Lab and Rennes 1 University, France) leading the workshop with Sébastien Laborie (Université de Pau et des Pays de l'Adour, France), Abderrezak Rachedi (University Paris-Est Marne-la-Vallée, France) and Yevgeniya Kovalchuk (Birmingham City University, United Kingdom).
- Second International Workshop on Generative and eXplainable AI for Networking (GenXNet'26): Antonio Pescapè (University of Napoli, Italy), Francesco Cerasuolo, University of Napoli Federico II, Italy, Anca Delia Jurcut, School of Computer Science University College Dublin, Ireland, and Alfredo Nascita (University of Napoli, Italy).
- Second International Workshop on AI for Mobile & Wireless Health: Advancing Explainability in the Future of Healthcare (AIMEH'26): Stefania Zinno (Università degli Studi di Napoli, Italy) and Giovanni Stanco (Università degli Studi di Napoli, Italy).

We owe much gratitude to our honorary General chair Ian Akyldiz (Truva Inc. USA) for his support.

Many thanks to Chiara Boldrini (IIT-CNR Istituto di Informatica e Telematica, Italy) for the efficient work throughout the review process and for leading the TPC co-chairs team Rasheed Hussain (University of Bristol, UK), Wessam Ajib (University of Quebec at Montreal, Canada), Chrysa Papagianni (University of Amsterdam, Netherlands) and Xiaohui Liang (University of Massachusetts Boston, USA); many thanks to all for handling the Technical Program activities; their contributions were very valuable.

We would like to thank our Short Papers, Demos and Posters Symposium co-chairs, Valeria Loscri (INRIA, France) and Marica Amadeo (University Mediterranea of Reggio Calabria, Italy).



Without the help of the publicity co-chairs WiMob would not have been such a success; so, many thanks to Ranwa Al Mallah (Polytechnique Montréal, Canada), Maroua Drissi (Orange Research, France), Stefania Zinno (Università degli Studi di Napoli, Italy), Bintao Hu (Xi'an Jiaotong-Liverpool University, China), and Feng Ye (University of Wisconsin-Madison, USA).

Also, we would like to thank Panagiotis Papadimitratos (KTH Royal Institute of Technology, Sweden) and Cheng Li (Simon Fraser University, Canada) for handling aspects of the workshop start-up.

Also, we would like to thank strongly Ngoran Magnuss Dufe (Avignon University, France) for his outstanding work on posting information related to WiMob 2026 on the website.

Finally, we would like to thank our technical sponsors, IEEE and the IEEE Communications Society for endorsing the conference.

We hope that you will find this program interesting and thought-provoking and that it will provide you with a valuable opportunity to share ideas with other researchers and practitioners from institutions around the world.

Abderrahim Benslimane
WiMob 2026 General Chair
University of Avignon, France



Samuel Pierre
WiMob 2026 Steering Committee
Chair
 Polytechnique of Montreal, Canada



Ian Akyldiz
WiMob 2026 Honorary
General Chair
 Truva Inc. USA





Program Overview

Wednesday, October 14, 2026 ^(*)

08:30 - 13:00

Registration

Room 01

Room 02

Room 03

Room 04

08:30 - 10:30

08:30 - 10:00

08:30 - 10:00

08:30 - 10:00

HP1

ST1

ST5

ST9

10:00 - 10:30

Coffee Break

10:00 - 11:30

Panel IEEE ComSoc (Plenary Salon Mistral)

11:00 - 12:30

11:00 - 12:30

11:00 - 12:30

11:00 - 12:30

HP2

ST2

ST6

ST10

12:30 - 14:00

Lunch

14:00 - 15:30

14:00 - 15:30

14:00 - 15:30

14:00 - 15:30

HP3

ST3

ST7

GX

15:30 - 16:00

Coffee Break

16:00 - 18:00

16:00 - 18:00

16:00 - 18:00

16:00 - 18:00

–

ST4

ST8

AI

17:30 - 19:00

Women's Network Panel (Plenary Salon Mistral)

19:30 - 21:00

Welcome Cocktail



Thursday, October 15, 2026 ^(*)

08:30 - 13:00

Registration

Room 01

Room 02

Room 03

09:00 - 10:30

09:00 - 10:30

09:00 - 10:30

S1

S2

S3

10:30 - 11:00

Coffee Break

11:00 - 11:30

Opening Ceremony (Plenary Salon Mistral)

11:30 - 12:30

Keynote Speaker 1: (Plenary Salon Mistral)

12:30 - 14:00

Lunch

14:00 - 15:30

14:00 - 15:30

14:00 - 15:30

S4

S5

S6

15:30 - 16:00

Coffee Break

16:00 - 17:40

16:00 - 17:30

16:00 - 17:30

S7

S9

S8

20:00

Conference Banquet



Friday, October 16, 2026 ^(*)

08:30 - 13:00 Registration		
Room 01	Room 02	Room 03
09:00 - 10:30 S10	09:00 - 10:30 S11	09:00 - 10:30 S12
10:30 - 11:00 Coffee Break		
11:00 - 11:30 Free session		
11:30 - 12:30 Keynote Speaker 2: (Plenary Salon Mistral)		
12:30 - 14:00 Lunch		
14:00 - 15:30 S13	14:00 - 15:30 S14	14:00 - 15:30 SPD1
15:30 - 16:00 Coffee Break		
16:00 - 17:40 S15	16:00 - 17:30 S16	16:00 - 17:30 SPD2
18:00 Closing Remarks		



HP1 (6 papers) runs 08:30 – 10:30; S7 and S15 run 16:00 – 17:40; SPD1 and SPD2 are sessions of 5 papers each. The Wednesday 19:30/20:00 slot is still to be defined.

Legend:

Workshops					
GX: GenXNet	HP: eHPWAS	AI: AIMEH	ST: STWiMob		
Main Conference					
S1, .., S16 are sessions of the main conference WiMob					
SPD: SPPDT WiMob Short Papers, Posters and Demos sessions (SPD1, SPD2) of 5 papers each					
Rooms for sessions					
Room 01	Room 02	Room 03	Room 04		
Plenary: General Session, Keynote Talks and Panels					
Plenary room = Salon Mistral					
All rooms are at the Avignon Grand Hotel, 34 Bd Saint-Roch, 84000 Avignon, France					



Wednesday, October 14, 2026

8:30 – 10:30

Room: Room 01

HP1: Intelligent IoT & Digital Health Systems

eHPWAS'26 – 14th International Workshop on e-Health Pervasive Wireless Applications and Services

Chair: **Tayeb Lemlouma (IRISA Lab and Rennes University, France)**

- **TORUS-53: A Wearable Infrastructure for Longitudinal Residential Movement Monitoring**
Shuhao Dong, Emma L. Tonkin, Ian Craddock and George Oikonomou (University of Bristol, United Kingdom (Great Britain))
- **A Runtime-Reconfigurable Wireless Body Area Network Using Textile-Based IoT Devices**
Melike Beşparmak, Omur Fatmanur Erzurumluoglu, Kadir Ozlem, Asli Tuncay Atalay, Ozgur Atalay and Gökhan Ince (Istanbul Technical University, Turkey)
- **Design and Preliminary Deployment of a Frugal Smartwatch Monitoring Platform for Dementia Care**
Mohamed Charfeddine (IRISA - IMT Atlantique, France); Juliette Reerink (Hôpital Saint Thomas de Villeneuve, France); Lucile Maugendre (Université Rennes 2, France); Jean-Marie Bonnin (Institut Mines Telecom / IMT Atlantique & IRISA - Inria, France)
- **Towards Health Data Autonomy: Bridging Consumer Wearable Data& Clinical Data for Holistic Healthcare**
Yildiz Dilara Parry and Giovanni Briganti (University of Mons, Belgium)
- **A Large World Model for Person Overcrowding in Indoor Spaces to Prevent Airborne Diseases**
Evangelos Spyrou (University of Ioannina, Greece & Centre for Research and Technology Hellas, Greece); Vassilios Kappatos (Centre for Research and Technology Hellas, Greece); Chrysostomos Stylios (PLATANI, Greece & Industrial Systems Institute, Athena RC, Greece)
- **Adaptive Bionic Interface for Real-Time Postural Correction and Clinical Monitoring via IoMT**
Catarina S B Pires and André C Vieira (Universidade da Beira Interior, Portugal); Ivan Miguel Pires (Universidade de Aveiro, Portugal); Fernando J. Velez (University of Beira Interior, Portugal & Instituto de Telecomunicações, Portugal)



8:30 – 10:00

Room: Room 02

ST1: AI-enabled cybersecurity, adversarial attacks & explainability

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: Reem Nabha (Institut Polytechnique de Paris, France & Université Libanaise, Lebanon)

- Semantic Cybersecurity: Ontology-Driven Attack Path Reasoning and Graph-Based Threat Intelligence
Mohammed Ibrahim El-hajj (Arab Open University - Lebanon (AOU), Lebanon)
- A Benchmark Study of Adversarial Attacks and Defenses in Telecom Retrieval Systems
Gonçalo Dinis Carvalho Lopes Ferreira (Instituto Politecnico do Porto, Portugal); Eva Maia (ISEP Gecad & ISEP, Portugal); Isabel Praça (School of Engineering (ISEP) / Polytechnic Institute of Porto (IPP) & Knowledge Engineering and Decision Support Research Center (GECAD), Portugal)
- XAI-IDS: An Explainable Intrusion Detection System for IoT/IIoT Networks Using SHAP and LLM
Zohra Chair (Fsg, University of Gabes, Tunisia); Issam Jabri (Ecole Nationale d'Ingénieurs de Gabès, Tunisia); Sonia Ben brahim (University of Carthage, Tunisia); Lajnef Hanen (Sup Com, Tunisia)
- Latency-Aware Security Integration for Operational Technology Networks via Edge Computing: A Comparative Evaluation of TLS-Secured MQTT and Modbus
Javier Otero-Mosquera (University of Vigo, Spain); Pablo Fondo-Ferreiro, Cristina López-Bravo and Pedro Tubío Figueira (Universidade de Vigo, Spain); Miguel Díaz-Cacho (University of Vigo, Spain)

Room: Room 03

ST5: Edge/continuum AI for sensing, monitoring & control

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: Lucia Billeci (National Research Council, Italy)

- Sustainable Goal-Oriented Weather Prediction in the 6G IoT-Edge AI-Cloud Mountain Sports Continuum
Maram Meslini (Université Savoie Mont Blanc, France); Thierry Lacrevez (Imep Lahc, France); Fernando J. Velez (University of Beira Interior, Portugal & Instituto de Telecomunicações, Portugal); Pietro M. Ferreira (Université Savoie Mont Blanc, CROMA, France)
- A CNN-BiLSTM Framework for Seizure Detection from Original and level-crossing sampled EEG Signals
Raoua Chouikh and Asma Maalej (SUP'COM, Tunisia); Manel Ben-Romdhane (Sup'Com, Tunisia)
- Adaptive Metric Selection for Monitoring Cloud-Edge-IoT Continuum Systems Using Reinforcement Learning
Ahmad Atwi (Université de Lorraine, CNRS, Inria, LORIA, France); Abdelkader Lahmadi (University of Lorraine, France)



Room: Room 04

ST9: Non-terrestrial and opportunistic wireless/distributed networks

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: **Perna Chaudhary (Indian Institute of Technology, Delhi, India)**

- **Topology-Aware Analysis of Context Synchronization in Opportunistic VANETs**
Ergys Puka (Norwegian University of Science and Technology - NTNU, Norway); Peter Herrmann and Besmir Tola (Norwegian University of Science and Technology, Norway)
- **Listening from Afar: Remote CPU Instruction Detection via 6G THz-ISAC Vibrometry: A Simulation Approach**
Oswa M. Amro (Al-Balqa Applied University, Al-Salt, Jorda, Jordan); Khalid A. Darabkh (The University of Jordan, Jordan); Ashraf Dabbas and Laith Baniata (Al-Balqa Applied University, Jordan)
- **A Distributed Computing Framework for Satellite Swarms**
Ezra Fielding (CNES, France); Clement Demazure (Toulouse INP IRIT, France); Guthemberg Silvestre (ENAC, France); Felipe Alves Suana (CNES, France); Philippe Queinnec (Toulouse INP IRIT, France)
- **Link Budget Enhancement in HRIS-Assisted LEO Direct-to-Cell Communications**
Nila Bagheri (Universidade Da Beira Interior, Portugal); Jon M. Peha (Carnegie Mellon University, USA); Fernando J. Velez (University of Beira Interior, Portugal & Instituto de Telecomunicações, Portugal)

10:00 – 11:30

Room: Salon Mistral

IEEE ComSoc Innovation Panel: Human-Centric Trustworthy AI for Secure 6G Systems

Chair: **Rasheed Hussain (University of Bristol, United Kingdom (Great Britain))**

Organized within: IEEE ComSoc TC Innovation Project “Human-Centric Trustworthy AI for Secure 6G Systems”
(Sponsorship: Communications & Information Security Technical Committee; Endorsement: IEEE ComSoc)

Abstract

6G networks are poised to be AI-native and the integration of AI into the fabric of 6G networks is expected to enable highly autonomous, intelligent, and adaptive communication systems. At the same time, it also introduces new challenges related to security, privacy, transparency, accountability, safety, and human oversight, in short, trustworthiness. This panel will explore how human-centric and trustworthy AI principles can be embedded into the design, deployment, and operation and adoption of secure 6G networks. The aim is to ensure that increasing network intelligence does not come at the expense of human values, safety, security, and/or control. The discussion will address key questions around the context of the 6G networks, role of humans, AI-driven automation, robustness, business, responsibility of AI, regulations and governance, and challenges.



11:00 – 12:30

Room: Room 01

HP2: Trustworthy & Explainable AI in Health

eHPWAS'26 – 14th International Workshop on e-Health Pervasive Wireless Applications and Services

Chair: **Tayeb Lemlouma (IRISA Lab and Rennes University, France)**

- Trustworthy Digital Health Twins through Explainable AI and Ethical Governance
Mohammed Ibrahim El-hajj (Arab Open University - Lebanon (AOU), Lebanon)
- Disentangling Algorithmic Approximation from Clinical Validity in AI Emergency Triage
Edouard Lansiaux (CHU de Lille, France); Hayfa Zgaya-Biau (Université Lille, CNRS, Centrale, CRISTAL, France); Mehdi Ammi (Université Paris 8, France)
- An Explainable Hybrid GraphRAG Framework for Diabetes Risk Stratification
Kandolo Herman (Vietnam National University Hanoi, Vietnam); Rabbi Kimbangi Menakuntima, Ridore Wenchel, Heritier Hamba Mawandu and Frederic Habonimana (International School, Vietnam National University, Vietnam); Alain M. Kuyunsa (Université de Kinshasa, Congo (Democratic Republic, Zaire)); Grevi Nkwimi (Hanyang University, ERICA Campus, Korea (South))
- A Hybrid Tsallis-Polarization Impurity Measure for Decision Trees
Edouard Lansiaux (CHU de Lille, France); Idriss Jairi (Montpellier University, France); Hayfa Zgaya-Biau (Université Lille, CNRS, Centrale, CRISTAL, France)



Room: Room 02

ST2: Robust and privacy-preserving distributed/federated AI

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: Mohammed Ibrahim El-hajj (Arab Open University - Lebanon (AOU), Lebanon)

- Robust Decentralized Federated Learning with Partial Weight Sharing Against Weight Poisoning Attacks
Reem Nabha (Institut Polytechnique de Paris, France & Université Libanaise, Lebanon); Abed Ellatif Samhat (Lebanese University, Lebanon); Anis Laouti (TELECOM SudParis, France)
- Beyond Single-Modality Evaluation: Measuring Robustness Variability of Federated Learning Defenses in Wireless Edge Systems
Sofiane Aissani (LIST3N Laboratory, University of Technology of Troyes, France); Leila Boulahia (University of Technology of Troyes, France); Yanis Boussoum and Engku Ahmad BinEngku Aziz (Université de Technologie de Troyes, France)
- Adversarial Robustness of Anomaly Detectors in Industrial Digital Twins: A White-box Attack Study
Maya Melissa Mellaz (Université de Lorraine, France); Lemia Louail (Université de Lorraine & CRAN, France); Moufida Maimour (Lorraine University, France); Daoudi Meroua (Laboratoire LITAN, École supérieure en Sciences et Technologies de l'Informatique et du Numérique, Algeria); Eric Rondeau (CRAN, France); Karl Andersson (Luleå University of Technology, Sweden)
- On the Interaction of Aggregation Strategies, Privacy Budgets, and Data Heterogeneity in Differentially Private Federated Learning
Ivana Dasovic (TU Wien, Austria); Anastasia Pustozero (SBA Research, Austria); Rudolf Mayer (SBA Research & Vienna University of Technology, Austria)

Room: Room 03

ST6: Wireless physical-layer optimization: beamforming, RIS & NOMA

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: Ahmad Atwi (Université de Lorraine, CNRS, Inria, LORIA, France)

- A Novel Physical Layer Design for Addressing the Trade-off between Security and Energy Efficiency
Jules Burgat (CEA, France); Jean-Baptiste Doré (CEA-Leti, France); Joumana Farah (INSA Rennes, France); Matthieu Crussière (Univ Rennes, INSA Rennes, CNRS, IETR, France)
- Receive Beamforming Design for Coexisting Wireless Control and Communication Networks
Mounir Dabouz and Mohamad Assaad (CentraleSupélec, France); Marco Di Renzo (L2S-CNRS, CentraleSupélec, UPSaclay (FR), France); Touraj Soleymani (University of London, United Kingdom (Great Britain))
- Spiking Neural Networks for Energy-Efficient RIS Phase Configuration
Guillaume Marthe (INSA Lyon & Inria Lyon, France); Claire Goursaud (INSA-Lyon, France)
- VFD-NOMA with Improper Gaussian Signaling Under Imperfect SIC and Inter-Relay Interference
Twinkle Bhavsar (Dhirubhai Ambani Institute of Information and Communication Technology, India); Abhishek Jindal (Dhirubhai Ambani University (Formerly DAICT), India)



Room: Room 04

ST10: Data-driven wireless/network performance analysis

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: Giovanni Grieco (Joint Research Centre, European Commission, Italy)

- Transfer Learning for Spatial-Frequency MIMO Channel Estimation
Perna Chaudhary (Indian Institute of Technology, Delhi, India); Manav Bhatnagar (Indian Institute of Technology Delhi, India)
- Empirical Evaluation of TCP Variants & an Amendment to VenO on a Controlled AWGN-Impaired WiFi Link
Luke Friggieri Cordina, Etienne-Victor Depasquale and Owen Casha (University of Malta, Malta)
- Exploiting Channel Knowledge Mapping for Path Loss Prediction in Aerial Networks
Najmeh Alibabae (Istituto di Scienza e Tecnologie dell'Informazione (ISTI) CNR, Italy); Antonello Calabrò (Consiglio Nazionale delle Ricerche, Italy); Pietro Cassarà (National Research Council (CNR) at Pisa, Italy); Alberto Gotta (Isti-Cnr, Italy & CNIT, Italy); Eda Marchetti (CNR, Italy); Arcangela Rago (Politecnico di Bari, Italy)
- Z-ROCKET: A Lightweight Method for Whole-Time-Series Anomaly Detection Using Random Convolutional Kernels
Matthias Rüb, Ahmed Hassan Mohamed Farrag and Christoph Lipps (German Research Center for Artificial Intelligence, Germany); Hans D. Schotten (RPTU Kaiserslautern-Landau, Germany)

14:00 – 15:30

Room: Room 01

HP3: Security, Privacy & Federated Learning

eHPWAS'26 – 14th International Workshop on e-Health Pervasive Wireless Applications and Services

Chair: Tayeb Lemlouma (IRISA Lab and Rennes University, France)

- Encryption Vulnerability Graph for Assessing IT System Compliance with Kerckhoffs' Principle in Hea
Inara Opmane (IMCS, UL & UL, Latvia); Kristaps Kulis (TET, Latvia); Rihards Balodis (IMCS, UL, Latvia)
- 10PH-DVFL: A Communication-Efficient Vertical Federated Learning for Precision Health (10P-Health)
Mahmoud Abuaysheh, Georgi Chaltikyan, Dmitry Etin, Rousl Al-Sardy, Grigor Chakmishyan and Eugenia Lvova (Technische Hochschule Deggendorf, European Campus Rottal-Inn, Germany)
- Zero-Knowledge Federated Learning with Lattice-Based Hybrid Encryption for Quantum-Resilient Medical
Edouard Lansiaux (CHU de Lille, France)
- BDD-based Analysis of Classifier Availability under Feature Uncertainty
Elena Zaitseva and Vitaly G. Levashenko (University of Žilina, Slovakia); Nicolae Brînzei (Université de Lorraine, France); Miriam Fandakova (University of Žilina, Slovakia)



Room: Room 02

ST3: Intelligent UAV perception, planning & safety

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: **Arcangela Rago (Politecnico di Bari, Italy)**

- TEUCS: Transformer Encoder-based UAV Path Planning for Cattle Search Problem

Najoua Benalaya (Telecom SudParis, France); Ichrak Amdouni (ENSI Manouba, Tunisia & University of Manouba, Tunisia); Cedric Adjih (INRIA, France); Anis Laouiti (TELECOM SudParis, France); Leila Azzouz Saidane (Lab CRISTAL- ENSI, University Manouba, Tunisia)
- Distributed Benchmarking of Vision-Language Models under Semantic Adversarial Attacks in UAV Emergency Scenarios

Amina Ben Taher (Université de Technologie de Troyes, France); Samiha Ayed (IMT Atlantique, France); Lamia Chaari Fourti (Sfax University, Tunisia); Sofiane Aissani (LIST3N Laboratory, University of Technology of Troyes, France)
- UE Status as a Query in End-to-End Vision-Aided Beam Prediction for Mobile Millimeter-Wave Links

Rui Geng, Daichi Kominami and Hideyuki Shimonishi (The University of Osaka, Japan); Masayuki Murata (Osaka University, Japan)
- Spatial Situational Awareness for Safe UAVs in XAI-enhanced 6G Networks

Giovanni Grieco (Joint Research Centre, European Commission, Italy); Arcangela Rago, Gennaro Boggia and Luigi Alfredo Grieco (Politecnico di Bari, Italy)



Room: Room 03

ST7: LPWAN, embedded IoT & constrained wireless communications

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: **Damien Wohwe Sambo (IMT Nord Europe, France & University of Ngaoundere, Cameroon)**

- The Impact of CSMA on LoRaWAN Communication Efficiency: A Diffusion Approximation Model
Tadeusz Czachorski (IITIS-PAN, Gliwice, Poland); Krzysztof Grochla (Institute of Theoretical and Applied Informatics of PAS, Poland); Piotr Pecka (Institute of Theoretical and Applied Informatics, Poland); Anna Strzoda (Institute of Theoretical and Applied Informatics & IITIS PAS, Poland); Jean Michel Fourneau (University of Versailles St Quentin & Université Paris-Saclay, France); Lynda Mokdad (Université de Paris 12, France); Monika Nycz (Silesian University of Technology, Poland); Tomasz Nycz (Politechnika Śląska, Centrum Komputerowe, Poland)
- Using multiple Spreading Factors simultaneously in LoRa 2.4 GHz: some solutions
Augustin Bonnel (Université Grenoble Alpes, France); Martin Heusse (Grenoble Informatics Laboratory & Grenoble INP, France); Jose-Ernesto Gomez-Balderas (Université Grenoble Alpes, France)
- An Empirical Study of ML-Based Rolling-Shutter OCC Decoding on MCU-Class Receiver Platforms
Hongbo Liu (Technische Universität Braunschweig, Germany); Juan F. Gutiérrez (TU Braunschweig, Germany); Negar Halakou (Technische Universität Braunschweig, Germany); Andres Gomez (TU Braunschweig, Germany)
- Efficient Intrusion Detection for IoT Networks Using Machine Learning Models on ESP32 Microcontroller
Henrik Steen and Godspower Ogaga Uti (Østfold University of Applied Sciences, Norway); Nga Dinh (Østfold University College, Norway)



Room: Room 04

GX: GenXNet'26: The 2nd IEEE International Workshop on Generative and eXplainable Artificial Intelligence for Networking (GenXNet)

GenXNet'26 – Second International Workshop on Generative and eXplainable AI for Networking

Chair: Anca Delia Jurcut (University College Dublin, Ireland)

- Improving Network Traffic Classification Using Metadata
Shahar Katz (Tel Aviv University, Israel); Tal Shapira (The Hebrew University of Jerusalem & Reco AI, Israel); Yaniv Harel (Tel Aviv University, Israel); Yuval Shavitt (Tel-Aviv University, Israel)
- Explanation Trust Score for Reliable LLM Incident Reporting in IoMT
Komal Ghafoor (Università degli Studi di Brescia, Italy); Anca Delia Jurcut (University College Dublin, Ireland); Devis Bianchini (University of Brescia, Italy); Furqan Rustam (University College Dublin, Ireland)
- Cost and Confidence Tiered Explainable and Generative Triage for SOC/ CSIRT Operations over Network Telemetry Alerts/Events
Mohammad Makchudul Alam, Md Redowan Zaman Anik and Sabrein Bodour (BGD e-GOV CIRT, Bangladesh); Anca Delia Jurcut (University College Dublin, Ireland)
- Explaining Temporal Resilience-State Inference of Wireless Industrial Communication Systems
Shashank Jhansale Anil Kumar (Technische Universität Braunschweig, Germany); Ahmad Ashraf Zargar (TU Braunschweig, Germany); Lars C Wolf (Technische Universität Braunschweig, Germany)



16:00 – 18:00

Room: Room 02

ST4: 5G/6G network platforms, slicing & air-interface evolution

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: **Javier Otero-Mosquera (University of Vigo, Spain)**

- Implementing vRANs on an Arm and GPU system
Romain Beurdouche (EURECOM, France); Raymond Knopp (Institut Eurecom, France)
- Predictive AI-Native Digital Twin for QoS-Security Orchestration in Multi-Cell 6G Networks Using Cell-Aware DRL
Naima Mchiri (Tunis El Manar University, Tunisia & LIMTIC Laboratory, Tunisia); Rachid Zagrouba (University of Tunis El Manar, Tunisia); Ezzeddine Zagrouba (Tunis El Manar University, Tunisia); Jean-Marie Bonnin (Institut Mines Telecom / IMT Atlantique & IRISA - Inria, France)
- Developing a Magma-based Private 5G SA Network Supporting COTS UE with Global Connectivity
Andreas Follevaag Malde and Klaidas Bajoras (University of Agder (UiA), Norway); Frank Y. Li (University of Agder, Norway)
- Performance Evaluation of Preamble-free Packet Transmissions in DECT NR+
Mattes Waßmann (Leibniz University Hannover, Germany); Maxim Penner (RFmondial GmbH, Germany); Alexander Poets and Stephan Preihs (Leibniz University Hannover, Germany); Jürgen Peissig (Leibniz Universität Hannover, Germany)



Room: Room 03

ST8: Wireless sensor networks: localization, deployment, routing & SHM

STWiMob'26 – 19th International Workshop on Selected Topics in Wireless and Mobile Computing

Chair: Peter Herrmann (Norwegian University of Science and Technology, Norway)

- Localization of Directional Transmitters Using a Variance-Based Metric in Wireless Sensor Networks
 António José Brito (ISCTE-IUI & Telecommunications Institute, Portugal); Pedro Sebastião (ISCTE-IUL, Portugal);
 Fernando J. Velez (University of Beira Interior, Portugal & Instituto de Telecomunicações, Portugal); Jon M. Peha
 (Carnegie Mellon University, USA)
- GAPSO: A Hybrid Metaheuristic Approach for the Optimized Deployment of Buried Nodes within a Wireless
 Underground Sensor Network
 Aimee Diane Ingabire (AIMS, Cameroon); Damien Wohwe Sambo (IMT Nord Europe, France & University of
 Ngaoundere, Cameroon); Danielle Blanche Kapsa (AIMS, Cameroon)
- FEM-Guided Placement and AEAR Routing for Heritage Arch SHM: The Great Mosque of Sfax
 Wael Doghri (CRNS, Tunisia & ESPRIT School of Engineering, Tunisia); Ahlem Saddoud (Centre de Recherche en
 Numérique de Sfax, Tunisia); Lamia Chaari Fourati (Institut Supérieur d'Informatique et de Multimédia de Sfax,
 Tunisia)
- Reliability-Aware SDR Beamforming for Underground Environments: A Laboratory Study
 Marta Sieradzka (Poznan University of Technology, Poland); Adam Michalak and Piotr Woźniak (Science Club
 Spektrum, Poznan University of Technology, Poland); Bartosz Berezowski (Poznan University of technology,
 Poland); Krzysztof Cichoń (Poznan University of Technology, Poland)



Room: Room 04

AI: AIMEH: AI for Mobile & Wireless Health: Advancing Explainability in the Future of Healthcare

AIMEH'26 – International Workshop on AI for Mobile & Wireless Health: Advancing Explainability in the Future of Healthcare

Chair: **Stefania Zinno (University of Naples Federico II, Italy)**

- GAN-Augmented Swin Transformer for Breast Cancer Detection in a Three-Tier IoMT Framework
Bo Li and Aniket Mahanti (University of Auckland, New Zealand); Kalpadrum Passi (Laurentian University, Canada); Ranesh Naha (Queensland University of Technology, Australia); Arunkumar Arulappan (Vellore Institute of Technology, India)
- Task-Oriented Semantic Communication for Digital Pathology over Wireless Channels
Domenico Benfenati, Giovanni Maria De Filippis and Antonio M. Rinaldi (University of Naples Federico II, Italy); Cristiano Russo (UNINA, Italy); Cristian Tommasino (University of Napoli Federico II, Italy)
- Investigating the Effect of ECG Recording Duration on HRV Reliability and Stress Classification
Ahmed Hassan Mohamed Aly (University of Pisa, Italy); Vittorio Meini (National Research Council of Italy, Italy); Lucia Billeci (National Research Council, Italy)
- Recent Advances in Artificial Intelligence-Driven Internet of Medical Things Networking
Giovanni Stanco (University of Napoli Federico II, Italy); Stefania Zinno (University of Naples Federico II, Italy); Alessio Botta (University of Napoli Federico II, Italy); Giorgio Ventre (University of Naples Federico II, Italy)



17:30 – 19:00

Room: Salon Mistral

Women's Network Panel: Wireless Networks for Agentic AI Systems

Chairs: Francesca Meneghello (Northeastern University, USA), Arcangela Rago (Politecnico di Bari, Italy), Stefania Zinno (University of Naples Federico II, Italy)

Sponsored by: IEEE WICE (Women in Communications Engineering) and N2Women

Moderators

- Arcangela Rago, Polytechnic University of Bari, Italy
- Stefania Zinno, University of Naples Federico II, Italy
- Francesca Meneghello, University of Padova, Italy

Panelists

- Prof. Sinem Coleri, Koç University, Turkey
- Dr. Marica Amadeo, University of Messina, Italy
- Prof. Fernando José da Silva Velez, Universidade da Beira Interior, Portugal
- Prof. Carolina Fortuna, Jožef Stefan Institute, Sloveni

Abstract

Agentic AI systems are rapidly evolving from passive inference engines into autonomous entities capable of perceiving, reasoning, and acting in dynamic environments. This shift introduces a new class of requirements for wireless networks, where connectivity is no longer limited to transporting data between users and remote computing units, but becomes an integral component of distributed intelligence and autonomous decision-making. This panel will explore how future wireless networks can support large-scale agentic AI ecosystems involving heterogeneous edge devices, e.g., personal devices, robots, and vehicles, that interact with cloud-native AI agents. Key topics include distributed inference and reasoning, semantic and goal-oriented communications, and the joint optimization of communication, computation, sensing, and control. The discussion will also investigate how agentic AI may reshape the design and operation of wireless networks themselves, enabling autonomous network management, adaptive resource allocation, and closed-loop optimization. Bringing together perspectives from wireless communications, networking, and artificial intelligence, the panel will identify key research challenges, architectural choices, and opportunities for agent-native wireless systems toward 6G.



Thursday, October 15, 2026

9:00 – 10:30

Room: Room 01

S1: *5G/6G Network Architecture (RAN/Core/MEC)*

Chair: **Samuel Pierre (Ecole Polytechnique de Montreal, Canada)**

- One Edge to Serve Both: A System Model for Joint 6G User Plane and Service Function Allocation
Toni Dimitrovski (TNO, The Netherlands & University of Twente, The Netherlands); Nassima Toumi and Maria Raftopoulou (TNO, The Netherlands); Suzan Bayhan and Geert Heijenk (University of Twente, The Netherlands)
- Joint U-Plane and C-Plane Evaluation of Distributed UPF Deployment: Trade-offs and Practical Guidelines for 5G and Beyond MEC
Takumi Ishihara (Keio University, Japan); Tomoaki Kanaya, Noriaki Yamada and Takashi Nakamura (SoftBank Corp, Japan); Keiichi Shima (SoftBank, Japan); Keisuke Uehara (Keio University, Japan)
- Mobility-Aware Edge Rebinding in 5G Networks using SR4MEC
Louis Royer (IRIT, University of Toulouse, France); Emmanuel Lavinal (Université de Toulouse, France & IRIT, France); Emmanuel Chaput (Institut National Polytechnique de Toulouse, France)
- QoS Provisioning for MEC Application Slices in Beyond 5G Networks
Irene Vilà (Universitat Politècnica de Catalunya (UPC), Spain); Oriol Sallent (Universitat Politècnica de Catalunya, Spain); Jordi Pérez-Romero (Universitat Politècnica de Catalunya (UPC), Spain)

Room: Room 02

S2: *Reconfigurable Intelligent Surfaces & Smart Antenna Systems*

Chair: **Ayona Chakraborty (Università degli Studi di Firenze, Italy)**

- Pinching Antenna System-Assisted Hybrid AirComp-NOMA Uplink: Joint Precoding and Antenna Placement Optimization
Saeid Pakravan (University of Quebec in Montreal (UQAM), Canada); Imene Trigui (University of Quebec at Chicoutimi, Canada); Wessam Ajib (Université du Québec à Montréal, Canada); Wei-Ping Zhu (Concordia University, Canada)
- Low-Complexity RIS-Aided MISO-LoRa for IIoT via Equivalent Channel Estimation and Codebook Optimization
Ali Kotti (University of Tunis Elmanar, Tunisia)
- Joint Placement, Phase Shift, and Resource Allocation for Multi-AIRS-Assisted OFDMA Networks
Ahmad Kasaeyan (Concordia University, Canada); Nguyen Minh Dat (Université du Québec à Montréal, Canada); Wei-Ping Zhu (Concordia University, Canada); Wessam Ajib (Université du Québec à Montréal, Canada)
- UAV-Enabled Outdoor OTA Validation Platform for 28 GHz Phased-Array Beamforming Antennas
Ayona Chakraborty (Università degli Studi di Firenze, Italy); Lapo Miccinesi, Luca Bigazzi, Andrea Cioncolini and Agnese Mazzinghi (University of Florence, Italy); Angelo Freni (Università degli studi Firenze, Italy); Simone Morosi (University of Florence, Italy & CNIT - Research Unit of Florence University, Italy)



Room: Room 03

S3: *Network & IoT Security I - Authentication, Key Generation & Security Analytics*

Chair: **Isaac Woungang (Toronto Metropolitan University, Canada)**

- Secure Attestation of ESP32-S3 IoT Devices Based on Intrinsic SRAM PUFs Using Machine Learning and Multi-Objective Optimization
 Florent Houetchekpo (University of Passau, Germany); Nikolaos Athanasios Anagnostopoulos (Universität Passau, Germany)
- Continuous Behavioral Authentication via Multi-Expert BERT Log Analysis for Secure Data Sharing
 Stergios Lantzios (University of Thessaly, Greece); Ilias Syrigos (University of Thessaly, Greece & CERTH, Greece); Apostolos Apostolaras (University of Thessaly & The Centre for Research & Technology Hellas, CERTH, Greece); Thanasis Korakis (University of Thessaly, Greece)
- Keep Private Networks Private II: Wideband Secret Key Generation on a Real 5G NR Testbed
 Sachinkumar B Mallikarjun (RPTU University Kaiserslautern-Landau, Kaiserslautern, Germany); Christoph Lipps (German Research Center for Artificial Intelligence, Germany); Marvin Reski (RPTU University Kaiserslautern-Landau, Germany); Sneha Bhattacharjee (RPTU Kaiserslautern-Landau, Germany); Andreas Weinand (RPTU University Kaiserslautern-Landau, Germany); Hans D. Schotten (RPTU Kaiserslautern-Landau, Germany)
- BiLCNet: BiLSTM-Conformer Network for Encrypted Traffic Classification with 5G SA Physical Channel Records
 Ke Ma (Shanghai Jiao Tong University, China & Telecom Paris, France); Jialiang Lu (Shanghai Jiao Tong University, China); Philippe Martins (Telecom Paris & LINCS, France)

11:00 – 11:30

Room: Salon Mistral

OP: *WiMob 2026 Opening Ceremony*

Chairs: **Abderrahim Benslimane (University of Avignon, France), Chiara Boldrini (IIT-CNR, Italy), Rasheed Hussain (University of Bristol, United Kingdom (Great Britain)), Samuel Pierre (Ecole Polytechnique de Montreal, Canada)**



11:30 – 12:30

Keynote 1: Beyond Connectivity: Explainable and Robust AI for 6G Control Systems

Dr. Sinem Coleri, IEEE Fellow, Professor at the Department of Electrical and Electronics Engineering, Koç University

Room: Salon Mistral

Chair: Abderrahim Benslimane (University of Avignon, France)

Abstract

Future wireless networks are undergoing a fundamental paradigm shift, from enabling communication among humans to enabling real-time control of complex physical systems. While 5G enabled large-scale machine-type communications and data collection, 6G aims to transform this data into actionable intelligence for applications such as UAV swarms, collaborative robots, and cooperative autonomous vehicles. In this context, communication systems must evolve beyond throughput and latency metrics to support goal-oriented, semantics-aware, and ultra-reliable control loops, where rare failures can be catastrophic. This keynote presents a unified perspective on explainable and robust AI as a key enabler of control-centric 6G networks. First, we integrate extreme value theory with generative AI to model and predict rare but critical events for ultra-reliable communications. This approach moves beyond average-case analysis and provides a principled framework for reliability guarantees in next-generation networks. Second, we develop optimization-theoretic AI frameworks for robust and safe radio resource management in wireless networked control systems. By leveraging structure-aware and safety-constrained learning methods, these approaches bridge the gap between data-driven intelligence and control-theoretic guarantees. Third, we demonstrate the role of explainable AI in achieving robustness, interpretability, and trust in safety-critical scenarios. Overall, we argue that combining generative modeling, optimization, extreme value theory and explainable AI will be instrumental in moving beyond connectivity toward intelligent, reliable, and controllable 6G systems.

Biography

Sinem Coleri is a Professor in the Department of Electrical and Electronics Engineering at Koc University. She is also the founding director of Wireless Networks Laboratory (WNL) and director of Ford Otosan Automotive Technologies Laboratory. Sinem Coleri received the BS degree in electrical and electronics engineering from Bilkent University in 2000, the M.S. and Ph.D. degrees in electrical engineering and computer sciences from University of California Berkeley in 2002 and 2005. She worked as a research scientist in Wireless Sensor Networks Berkeley Lab under sponsorship of Pirelli and Telecom Italia from 2006 to 2009. Since September 2009, she has been a faculty member in the department of Electrical and Electronics Engineering at Koc University. Her research interests are in 6G wireless communications and networking, AI-based wireless networks, machine-to-machine communications, wireless networked control systems and vehicular networks. Dr. Coleri has more than 150 publications with citations over 13000 (Google scholar profile). She has received numerous awards and recognitions, including TUBITAK (The Scientific and Technological Research Council of Turkey) Science Award in 2024; N2Women: Stars in Computer Networking and Communications in 2022; TUBITAK Incentive Award and IEEE Vehicular Technology Society Neal Shepherd Memorial Best Propagation Paper Award in 2020; Outstanding Achievement Award by Higher Education Council in 2018; and Turkish Academy of Sciences Distinguished Young Scientist (TUBA-GEBIP) Award in 2015. Dr. Coleri currently holds the position of Editor-in-Chief at the IEEE Open Journal of the Communications Society. Dr. Coleri is an IEEE Fellow and AAIA Fellow.



14:00 – 15:30

Room: Room 01

S4: *Energy-Efficient Wireless Systems*

Chair: **Loutfi Nuaymi (IMT Atlantique, France)**

- Channel-Chart-Driven Antenna Activation for Energy-Efficient Cell-Free Massive MIMO
Yara Kafa (Institut National des Sciences Appliquées de Rennes, France); Luc Le Magoarou (INSA Rennes, IETR, France); Joumana Farah (INSA Rennes, France); Matthieu Crussière (Univ Rennes, INSA Rennes, CNRS, IETR, France)
- Open Distributed Unit (O-DU) Dynamic Core and DVFS Optimisation for Energy--Latency Trade-offs
Godlove Suila Kuaban (Institute of Theoretical & Applied Informatics Polish Academy of Sciences, Poland); Tadeusz Czachorski (Institute of Theoretical and Applied Informatics of Polish Academy of Sciences, Poland); Piotr Czekalski, Onyeka J. Nwobodo and Jeremiah O. Abimbola (Silesian University of Technology, Poland); Tulin Atmaca (IMT/Telecom SudParis, France)
- Constrained Discrete Bayesian Optimization for Base Station Sleep Mode in Cellular Networks
Ryad Madi (CentraleSupélec, Université Paris Saclay, France); Salah Eddine Elayoubi (CentraleSupélec, France); Michel Kieffer (CentraleSupélec, France)
- On the Impact of Recent 5G/6G BS Power Models on Energy Efficiency Studies
Julien Ali El Amine (American University of the Middle East, Kuwait); Augusta Castelli (Politecnico di Torino, Italy); Ibtissem Oueslati and Loutfi Nuaymi (IMT Atlantique, France); Anne-Cécile Orgerie (CNRS & IRISA, France); Michela Meo (Politecnico di Torino, Italy)

Room: Room 02

S5: *Localization, Positioning & Radio Environment Mapping*

Chair: **Nikolaos Athanasios Anagnostopoulos, University Passau, Germany**

- OWL: Enabling Orientation-Diverse Wireless Localization Research
Michael Sedlak, Jesus Pestana and Carlo Alberto Boano (Graz University of Technology, Austria)
- Learned Elevation Models as a Lightweight Alternative to LiDAR for Radio Environment Map Estimation
Ljupcho Milosheski (University of Luxembourg, Luxembourg); Fedja Močnik (Jožef Stefan Institute, Slovenia); Mihael Mohorcic (Jozef Stefan Institute & Jozef Stefan International Postgraduate School, Slovenia); Carolina Fortuna (Jozef Stefan Institute, Slovenia)
- Embedding Propagation Models into Neural Networks for Physics-Informed Localization
Saud Ahmad Khan (Institut Supérieur D'électronique de Paris (ISEP), France & Sorbonne University, France); Wafa Njima (Institut Supérieur d'Electronique de Paris, France); Iness Ahriz (CNAM, France); Lina Mroueh (Institut Supérieur d'Electronique de Paris, France)
- DAG-TransLoc: Domain-Generalized Indoor Localization with Variable Anchor Configurations
Dhriti M Goenka, Abhishek Jindal and Manish Kumar (Dhirubhai Ambani University (Formerly DAIICT), India)



Room: Room 03

S6: Satellite, Optical & Quantum Communications

Chair: Toni Dimitrovski (TNO, The Netherlands & University of Twente, The Netherlands)

- An Empirical Study on Free Space Optical Backhaul
Leonard Nolting (Technische Universität München, Germany); Thomas Nolting (Technical University of Munich, Germany); Kevin Jiokeng (Ecole Polytechnique & LIX, France); Juan Antonio Cordero (École Polytechnique, France)
- A Bi-objective Model to Quantify the Load-Latency Trade-off in LEO Constellation Routing
Alice De Guibert (ISAE Supaero, France); Oana Hotescu (ISAE-SUPAERO, University of Toulouse, France & ISAE-SUPAERO, France); Emmanuel Lochin (ENAC, France & Université de Toulouse, France); Alain Hait (ISAE-SUPAERO, Université de Toulouse, France)
- Parameter-Based Channel Estimation for OFDM CV-QKD Systems With CRLB Benchmarking and Secret Key Rate Analysis
Mohammed Kamel AbuFoul and Salama Said Ikki (Lakehead University, Canada)
- PPO-Based Quantum-Aware Resource Optimization for Decoy-State BB84 in FSO Wireless Networks
Perna Chaudhary (Indian Institute of Technology, Delhi, India); Nikita Kumari and Manav Bhatnagar (Indian Institute of Technology Delhi, India)



16:00 – 17:40

Room: Room 01

S7: Network & IoT Security II - Attack & Intrusion Detection

Chair: Dwight Makaroff (University of Saskatchewan, Canada)

- Analysis of DoS Attacks on Digital Twin-based Aol-aware Wireless Transmission Scheduling
 Ahmed Shaharyar Khwaja (Toronto Metropolitan University, Canada); Shuo Yu and Waleed Ejaz (Lakehead University, Canada); Poornima S (Cochin University of Science and Technology, India); Isaac Woungang and Alagan Anpalagan (Toronto Metropolitan University, Canada)
- UVIF-IoT: Calibrated and Feature-Efficient Intrusion Detection with Forensic Triage for IoT Edge Security
 Amal Ajayan (Amrita Vishwa Vidyapeetham (Deemed University), India); Habib Hamam (University of Moncton, Canada); Mohsen Guizani (Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates)
- Testbed-Driven Class-Aware Synthetic Data Augmentation for 5G DDoS Detection
 Nasim Nezhadsistani and Cédric Ivo Lüchinger (University of Zurich, Switzerland); Lorenzo Ladner (University of Zurich, Switzerland); Cyrill Georg Meier and Weijie Niu (University of Zurich, Switzerland); Burkhard Stiller (University of Zürich, Switzerland)
- DAMG-LiquidIDS: A Drift-Aware Feature-Gated Liquid Neural Network for Intrusion Detection in Dynamic IoT and Mobile Networks
 Nasreddine Hamdi and Akram Belazi (National Engineering School of Tunis, Tunisia); Safya Belghith (Ecole Nationale d'Ingénieurs de Tunis, Tunisia); Hector Migallón (Miguel Hernández University, Spain)



16:00 – 17:30

Room: Room 03

S8: Network Optimization & Programmability

Chair: **Ahyoung Lee (Kennesaw State University, USA)**

- Goal-Oriented Resource Allocation for 6G Radio Access Networks with Spatial Reuse
 Maria Cecilia Fernandez Montefiore (Universidad de Granada, Spain); Federico Mason and Federico Chiariotti (University of Padova, Italy); F. Javier Lopez-Martinez (University of Granada, Spain); Andrea Zanella (University of Padova, Italy & CNIT, Italy)
- CLA-Score: A Criticality Loss Age Packet Selection Policy for Heterogeneous Traffic in IEEE 802.15.4e TSCH Networks
 Mo Ringbe Saynbe (INRIA, France); Carol Habib (Inria, France); Nathalie Mitton (Inria Lille - Nord Europe, France)
- A Comprehensive Comparative Study of Metaheuristic Algorithms for the Controller Placement Problem in SDN-IoT Networks
 Rami Mohaisen and Mohammad Muhaisen (Jordan University of Science and Technology, Jordan); Omar Fayed (King Fahd University of Petroleum and Minerals, Saudi Arabia); Ayat M. Alrjoob (German-Jordanian University, Jordan); Mamoun F. Al-Mistarihi (Jordan University of Science and Technology, Jordan); Khalid A. Darabkh (The University of Jordan, Jordan)
- Towards a Hybrid Management Protocol Stack in Programmable Wireless Networks
 Thomas Le Tarnec (IMT Atlantique, France); Georgios Z. Papadopoulos (IMT Atlantique & IRISA Laboratory & IRISA Laboratory, France); Guillaume Le Gall (University of Rennes, IRISA, France); Julien Montavont (ICube Laboratory (CNRS) - University of Strasbourg, France); Thomas Noel (ICube, University of Strasbourg, France)

Room: Room 02

S9: Channel Estimation & Coding

Chair: **Mihael Mohorcic (Jozef Stefan Institute & Jozef Stefan International Postgraduate School, Slovenia)**

- AI-Driven Geometry-Aware Zero-Pilot Downlink Channel Prediction for Large Frequency Gaps in 5G
 Jui Mhatre and Ahyoung Lee (Kennesaw State University, USA)
- Robust Huber-IRLS Channel Estimation for VLC Under Signal-Dependent and Impulsive Noise
 Asma Bouhlel (Université de Tunis El Manar, Tunisia); Salama Said Ikki (Lakehead University, Canada)
- Neural-Residual LMMSE Estimation for Measured V-VLC Channels Under Composite Optical Noise
 Asma Bouhlel (Université de Tunis El Manar, Tunisia); Salama Said Ikki (Lakehead University, Canada)
- Design SNR Optimization of Polar Codes for Successive Cancellation List Decoding
 Hidetake Matsui and Hideki Ochiai (The University of Osaka, Japan)

20:00

Conference Banquet





Friday, October 16, 2026

9:00 – 10:30

Room: Room 01

S10: Vehicular, Tactical & Mobility Networking

Chair: **Stefania Zinno (University of Naples Federico II, Italy)**

- **CreV: A Lightweight Challenge-Response Exchange Protocol and Frame Design for Secure V2V Communications**
 Hossam Omar (College of Engineering and Technology, American University of the Middle East, Kuwait); Hazem Elkanawati, Mazen Moataz and Abdelrhman Yasser (Arab Academy for Science, Technology and Maritime Transport); Youssef Hany (Arab Academy for Science, Technology and Maritime Transport, Egypt); Rania Hussein (University of Washington, USA)
- **Road Safety Applications vs. Network Constraints: Feasibility Limits of IEEE 802.11p**
 Bertrand Ducourthial (Université de Technologie de Compiègne & CNRS Heudiasyc UMR7253, France); Anthony Busson (Université Claude Bernard Lyon 1 & LIP, France)
- **RIMA-HO: Radio Interface Management Approach for Handover Optimization in Heterogeneous C-ITS Environments**
 Rima Boughariou and Hend Marouane (University of Sfax, Tunisia); Mohamed Mosbah (CNRS-LaBRI UMR 5800, University Bordeaux, Bordeaux-INP, France); Hassene Mnif (University Sfax, Tunisia); Amel Meddeb-Makhlouf (NTS'COM Lab Unit, Enet'Com, University of Sfax, Tunisia)
- **Evaluation of a LoRa-based mesh networking protocol for tactical communications**
 Lionel Touseau (IRISA & Université Bretagne Sud, France); Corentin Ligier, Valentin Demade and Basile De Fautereau-Vassel (Saint-Cyr Coetquidan Military Academy, France); Zeineb Nsiri and Mourad Messadi (Académie Militaire, Fondouk Jedid, Tunisia)



Room: Room 02

S11: Federated Learning I - Systems & Applications

Chair: Damiano Carra (University of Verona, Italy)

- Multidimensional Contract Design for In-Network Aggregation in Hierarchical Federated Learning
Rania Hidoussi, Gael S. Mubibya and Elmahdi Driouch (Université du Québec à Montréal, Canada)
- Incentivizing Efficient Zeroth-Order Federated Fine-Tuning of Generative AI in Satellite-UAV Cooperative Networks
Haoqing Jiang and Qichao Xu (Shanghai University, China); Zhou Su (Xi'an Jiaotong University, China); Marie Siew (Singapore University of Technology and Design, Singapore); Yihao Qi (Shanghai University, China); Zehui Xiong (Queen's University Belfast, United Kingdom (Great Britain))
- A Temporal Stability Metric for Clustering-Aware Federated Learning in UAV-Assisted Vehicular Networks
Chérifa Boucetta (Université Gustave Eiffel & LIGM, France); Oumaya Baala (UTBM, CNRS, Institut Femto-st, France)
- Federated Learning with AMR-Assisted Few-Shot Calibration for Cross-Facility BLE Indoor Localization
Azin Moradbeikie (University of Trieste, Italy); David Beserra (École Pour l'Informatique et Les Techniques Avancées, France)

Room: Room 03

S12: AI-Driven Optimization & Energy Management

Chair: Isaac Woungang (Toronto Metropolitan University, Canada)

- Decentralized node selection approach for load-balanced data collection in photovoltaic monitoring systems
Tatiana Aljamous and Carol Habib (Inria, France); Jad Nassar (Antonine University & TICKET Lab, Lebanon); Joseph Al Asmar (Université Antonine, Lebanon); Nathalie Mitton (Inria Lille - Nord Europe, France)
- Cross-Attention Adaptive Fusion for Multi-Step Photovoltaic Power Forecasting from Real Multi-Site Measurements
Waseem Ullah (Mohamed bin Zayed University of Artificial Intelligence, United Arab Emirates); Muhammad Saeed (Islamia college Peshawar, Pakistan); Mohsen Guizani (Mohamed Bin Zayed University of Artificial Intelligence, United Arab Emirates)
- Trajectory-Agnostic Charging Scheduling in 6G Mobile WRSNs Using Adaptive Charger Movement for Sensor Tracking
Ravendra Ratan Singh Jandail (South Asian University, Delhi, India); Shachi Sharma (South Asian University, India)
- Reinforcement Learning for Adaptive Synchronization in 5G Network Digital Twins
Abdessamed Seddiki (Université de Lorraine, France); Lemia Louail (Université de Lorraine & CRAN, France); Moufida Maimour (Lorraine University, France); Eric Rondeau (CRAN, France)



11:30 – 12:30

Keynote 2: *Empowering Next-Generation User Experiences and Services at Scale with 6G*

Dr. Amira Alloum, PhD, MSc. Director of Engineering, Qualcomm France

Room: Salon Mistral

Chair: Samuel Pierre (Ecole Polytechnique de Montreal, Canada)

Abstract

This keynote explores how 6G is being developed as a transformative, AI-native wireless platform to power the next generation of digital and virtual experiences. Discover how 6G is designed to harness advancements in multi-modal AI, extended reality (XR), edge computing, digital twins, and sensing technologies to unlock new use cases. Qualcomm's advanced research will enable immersive, intent and context-based experiences that were previously unimaginable at scale.

Biography

Amira Alloum, PhD, is Director of Engineering at Qualcomm France, where she leads the European 5G/6G Wireless Research Center. In this role, she drives advanced research in wireless communications, in close collaboration with leading academic institutions and major industrial partners across Europe. The center plays a strategic role in national and European innovation ecosystems, with strong involvement in flagship European 6G research programs. Amira has also led Qualcomm's 5G/6G Innovation Platform project in Lannion, a program funded under the France 2030 initiative, which aims to position France at the forefront of next generation mobile networks and to accelerate the industrial adoption of 5G and future 6G technologies. In parallel, she oversees Qualcomm's collaboration programs with universities and startups across the EMEA region, while continuing to contribute to academia through postgraduate supervision and lecturing on error correcting code applications for wireless systems. With over two decades of R&D experience spanning network operators, equipment vendors, and semiconductor companies, Amira has made significant contributions to 3GPP 5G standardization, LTE and DVB technologies, as well as to research in post quantum security and advanced receiver architectures for wireless and optical communications. Beyond her research and industrial activities, Amira is a member of the Scientific Council of the ARCEP Future Networks Committee and has contributed extensively to the IEEE through sustained leadership service, including chairing roles in several technical and organizational committees. She holds a PhD in Information Theory from Institut Mines Télécom / Télécom Paris and has an extensive publication and student supervision record in collaboration with leading international universities.



14:00 – 15:30

Room: Room 01

S13: UAV Systems & Aerial Networking

Chair: Roger Sanchez-Vital (University of Antwerp - imec, Belgium)

- A Reactive Cross-Layer QoS Adaptation Framework for SDN-Enabled DDS Communications in IoD
Mohamed Ali Zormati (Université de Technologie de Compiègne (UTC), France); Ghada Jaber (Universite de Technologie de Compiègne, France); Hicham Lakhlef (Univ Bordeaux, France)
- Modeling and Predicting LTE-Induced Learnability Cliffs in RL-Controlled UAV Swarms
Stephen Odero, Dwight Makaroff and Derek Eager (University of Saskatchewan, Canada)
- Network Congestion-aware Path Planning for Indoor Multi-UAV Systems
Zarrar Haider (Brookfield Villages, Ireland & UCC, Ireland); Cormac J. Sreenan and Kenneth N Brown (University College Cork, Ireland)
- An Hybrid Two-Stage Architecture for Anomaly Detection in LEO Satellite Orbit
Matteo Soldà (University of Padova, Italy); Simone Soderi (IMT School for Advanced Studies Lucca, Italy); Mauro Conti (University of Padova, Italy)

Room: Room 02

S14: Wireless Sensing, ISAC & Human Activity Recognition

Chair: David Niederprüm (Technische Universität Braunschweig, Germany)

- RobWDM: Hardware-Accelerated CNN Meeting Wavenumber-Domain Method for Robust Near-Field Sensing
Anouar Nechi, Mohammadreza Fouji, Rainer Buchty and Mladen Berekovic (Universität zu Lübeck, Germany)
- XAI2CSI: Interpreting CSI with eXplainable AI for Human Activity Recognition
Idio Guarino (University of Bologna, Italy); Alfredo Nascita (University of Napoli Federico II, Italy); Domenico Ciuonzo (University of Naples Federico II, Italy); Damiano Carra (University of Verona, Italy); Antonio Pescapé (University of Napoli Federico II, Italy)
- Geometry over Depth: Multi-Node WiFi CSI Fusion for Robust Human Activity Recognition
Mojtaba Mansouri Nejad (Persian Gulf University, Iran); Azin Moradbeikie (University of Trieste, Italy); David Beserra (École Pour l'Informatique et Les Techniques Avancées, France); Ahmad Keshavarz (Persian Gulf University, Iran); Hojat Ghaimatgr (Computational Neuroscience Laboratory, ICT Research Institute, Iran)
- Feedback Control via Integrated Sensing and Communication: Uncertainty Optimisation
Touraj Soleymani (University of London, United Kingdom (Great Britain)); Mohamad Assaad (CentraleSupélec, France); John S. Baras (University of Maryland, USA)



Room: Room 03

SPD1: Distributed Learning and Security

SPPDT – WiMob Short Papers, Posters and Demos

Chair: Léo Lavour (SnT, University of Luxembourg, Luxembourg)

- Demo: Tracing a DSM-5 Depression Assessment from Score to Formula on Edge Hardware
Tibor Haller and Bruno Rodrigues (University of St. Gallen, Switzerland)
- Lightweight Multi-Scale CNN Embeddings for Edge-Aware Malware Detection from API-Call Sequences
Giuseppe Bonomo (University of Palermo, Italy); Marco Siino and Giacomo Morabito (University of Catania, Italy)
- A data-centric security architecture for challenged networks
Etienne Lemonnier (Université de Bretagne Sud, France); Lionel Touseau (IRISA & Université Bretagne Sud, France); Jamal El Hachem (IRISA, France); Jeremy Buisson (Ecole de l'Air et de l'Espace, France); Nicolas Belloir (IRISA / CREC St-Cyr, France); Jean-François Wiolek (Thales Group, France)
- PRISM: RL-Based Rate Control for Low Latency and High Data Rate in Mobile Edge Networks
Hamid Hassani and Staji Wilson (Eindhoven University of Technology, The Netherlands); Kishor Chandra Joshi (TU Eindhoven, The Netherlands); Sonia Heemstra de Groot (Eindhoven Technical University, The Netherlands); Ignas Niemegeers and George Exarchakos (Eindhoven University of Technology, The Netherlands)
- FL-Broadcast: Efficient Decentralized Learning on Wireless Networks
Yann Busnel (Institut Mines-Télécom, IRISA, France); Léo Lavour (SnT, University of Luxembourg, Luxembourg); Herve Rivano (INSA Lyon, France)



16:00 – 17:40

Room: Room 01

S15: Federated Learning II - Security & Robustness

Chair: Rasheed Hussain (University of Bristol, United Kingdom (Great Britain))

- Privacy-Enhanced Zero-Order Federated Learning via xMK-CKKS over Wireless Channels
Anthony Ayli (Saint-Joseph University of Beirut, Lebanon); Khalil Harris (Université Saint-Joseph de Beyrouth, Lebanon); Jihad Fahs (American University of Beirut, Lebanon); Mohamad Assaad (CentraleSupélec, France)
- NetHE-FL: Network-Adaptive CKKS-Protected Federated Learning for Healthcare IoT Systems
Sarra Erregui (University Chouaib Doukkali, Morocco); Otmane El mouaatamid (ENSIAS, Mohammed V University, Morocco); El mehdi Loualid (University Chouaib Doukkali & Ensaj, Morocco)
- Can Federated Learning Backdoor Defenses Protect Parallel Split-Federated Learning?
Yelyzaveta Klysa and Milica Aleksic (SBA Research, Austria); Rudolf Mayer (SBA Research & Vienna University of Technology, Austria)
- BAF-Defense: A Bi-Branch Autoencoder Fusion Defense Against Label-Flipping Attacks in Federated Learning
Yunhao Wang (University of Auckland, New Zealand); Ranesh Naha (Queensland University of Technology, Australia); Aniket Mahanti (University of Auckland, New Zealand); Diksha Goel (CSIRO Data61, Australia)
- FADIoT: Federated GANomaly with Temporal NetFlow Features and Perturbation-Aware Training for Privacy-Preserving IoT DDoS Detection
Danni Yin and Aniket Mahanti (University of Auckland, New Zealand); Kalpadrum Passi (Laurentian University, Canada); Ranesh Naha (Queensland University of Technology, Australia); Saqib Iqbal Hakak (University of New Brunswick, Malaysia)



16:00 – 17:30

Room: Room 02

S16: WiFi Networks & Integrated Sensing

Chair: **Emmanuel Chaput (Institut National Polytechnique de Toulouse, France)**

- The Role of MLO in Achieving Deterministic Wi-Fi
Roger Sanchez-Vital (University of Antwerp - imec, Belgium); Eduard Garcia-Villegas (Universitat Politècnica de Catalunya, Spain)
- Hybrid Coordinated Beamforming for WiFi 8 with Reconfigurable Antennas: A Measurement-Driven Study
Anna Guglielmi and Stefano Tomasin (University of Padova, Italy)
- L25MCP: Flexible Multi-connectivity in WiFi Networks
David Niederprüm, Christian Dietrich and Lars C Wolf (Technische Universität Braunschweig, Germany)
- Status Updating via Integrated Sensing and Communication: Freshness Optimisation
Touraj Soleymani (University of London, United Kingdom (Great Britain)); Mohamad Assaad (CentraleSupélec, France); John S. Baras (University of Maryland, USA)

Room: Room 03

SPD2: Advanced Wireless Networks and Communication Systems

SPPDT – WiMob Short Papers, Posters and Demos

Chair: **Marica Amadeo (University of Messina, Italy)**

- Challenging computer architectures with an intensive vRAN deployment
Romain Beurdouche (EURECOM, France); Raymond Knopp (Institut Eurecom, France)
- 5G and Beyond: Analytical Comparison of Real NG-RAN Implementations
Michael Amista' (Apeiron, Italy); Claudio E. Palazzi and Lorenzo Perinello (University of Padua, Italy); Gianluca Verin (Apeiron, Italy)
- Improving IoT Content Distribution with In-network Redundancy-Aware Semantic Caching
Marica Amadeo (University of Messina, Italy); Giuseppe Ruggeri and Antonella Molinaro (University Mediterranea of Reggio Calabria, Italy); Salvatore Serrano (University of Messina, Italy)
- Communication-Oriented Evaluation of Swarm Configurations for Lunar Radio Astronomy
Rui Geng (Eindhoven University of Technology, The Netherlands); Mark Bentum (Eindhoven University of Technology & ASTRON, The Netherlands); George Exarchakos (Eindhoven University of Technology, The Netherlands)
- Performance Comparison between Monolithic gNB and DU-CU Split Deployments in 5G Networks
Michael Amista' (Apeiron, Italy); Claudio E. Palazzi and Lorenzo Perinello (University of Padua, Italy); Gianluca Verin (Apeiron, Italy)



18:00

Closing Remarks



Organizing Committee

Honorary General Chair	IAN AKYILDIZ, Truva Inc., USA
General Chair	ABDERRAHIM BENSLIMANE, Avignon University, France
Steering Committee Chair	SAMUEL PIERRE, Polytechnique Montréal, Canada
Technical Program Co-Chairs	WESSAM AJIB, Université du Québec à Montréal, Canada CHIARA BOLDRINI, IIT-CNR Istituto di Informatica e Telematica, Italy RASHEED HUSSAIN, University of Bristol, United Kingdom XIAOHUI LIANG, University of Massachusetts Boston, USA CHRYSA PAPAGIANNI, University of Amsterdam, Netherlands
Workshop Co-Chairs	PANAGIOTIS PAPADIMITRATOS, KTH Royal Institute of Technology, Sweden CHENG LI, Simon Fraser University, Canada
Publication Chair	SAADI BOUDJIT, University of Rouen Normandy, France
Publicity Co-Chairs	RANWA AL MALLAH, Polytechnique Montréal, Canada MAROUA DRISSI, Orange Research, France STEFANIA ZINNO, Università degli Studi di Napoli, Italy BINTAO HU, Xi'an Jiaotong-Liverpool University, China FENG YE, University of Wisconsin-Madison, USA
Student Travel Grant Chair	JENNIFER SIMONJAN, Technology Innovation Institute, UAE
Short Papers, Posters and Demos Track Co-Chairs	MARICA AMADEO, University Mediterranea of Reggio Calabria, Italy VALERIA LOSCRI, INRIA, France
Women's Network Co-Chairs	FRANCESCA MENEGHELLO, Northeastern University, USA ARCANGELA RAGO, Politecnico di Bari, Italy
Local Organization Chair	ABDERRAHIM BENSLIMANE, Avignon University, France
Webmaster	NGORAN MAGNUSS DUFE, Avignon University, France