



6GEM⁺

International 6G & Beyond Experts Workshop

6 October 2026

Ruhr University Bochum · Bochum, Germany

MOSAIC
LAB

Organized by

6GEM⁺

German 6G Transfer Hub

Ruhr University Bochum

Host institution

MOSAIC Lab

Research group

Workshop Overview

SPEAKERS



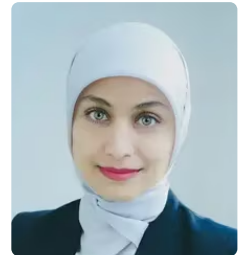
Dr. Sameh Yamany



Dr. Rajarajan Sivaraj



Riccardo Pascotto



Dr. Meryem Simsek



Dr. Francisco Garcia



Mr. Riccardo Guerzoni



Dr. Jose Costa-Requena



Dr. Athul Prasad



Dr. Borislav Tadić



Dr. Helge Lüders



Prof. Jaeho Kim



Prof. Susana Sargento



Prof. Manabu Tsukada



Prof. Jaeseung Song



Prof. Dr.-Ing. Christian Zenger



Dr. David Rupprecht

ORGANIZING COMMITTEE



Prof. Dr.-Ing. Aydin Sezgin

Workshop Programme Co-Chair



Prof. Dr. Tarik Taleb

Workshop Programme Co-Chair



Dr. Qize Guo

Local Organizing Chair

International 6G & Beyond Experts Workshop

6 October 2026 · Ruhr University Bochum, Universitätsstraße 150, Building ID, 44801 Bochum, Germany

08:30–09:00 **Participant registration**

09:00–09:15 **Opening & welcome remarks**

Prof. Dr. Günther Meschke — Vice-Rector for Research and Transfer, Ruhr University Bochum, Germany

09:15–10:15 **Keynote Session I**

Chair: Prof. Dr. Ing. Christian Wietfeld, Technical University of Dortmund, Germany

KEYNOTE 1 **Dr. Sameh Yamany** — VIAVI Solutions

KEYNOTE 2 **Dr. Rajarajan Sivaraj** — Rakuten

10:15–10:45 Coffee break

10:45–12:30 **Technical Session I**

6G & Beyond Enablers & Features — Perspectives from Industry

Chair: Prof. Dr. Onur Günlü, Technical University of Dortmund, Germany

Riccardo Pascotto — T-Labs, Germany

Dr. Meryem Simsek — Nokia Bell Labs, USA

Dr. Francisco Garcia — Keysight Technologies, Belgium

Mr. Riccardo Guerzoni — DOCOMO Euro-Labs, Germany

Dr. Jose Costa-Requena — CumuCore Oy, Finland

12:30–14:00 Lunch break

14:00–15:30 **Keynote Session II**

Chair: Dr. Niels König, Fraunhofer Institute for Production Technology, Germany

KEYNOTE 3 **Dr. Athul Prasad** — Cloudera Inc., USA

KEYNOTE 4 **Dr. Borislav Tadić** — 1&1 Versatel, Germany

KEYNOTE 5 **Dr. Helge Lüders** — Telefónica Germany GmbH & Co. OHG, Germany

15:30–16:00 Coffee break

16:00–18:15 **Technical Session II**

6G & Beyond Services — Perspectives from Academia and Startups

Chair: Prof. Dr. Ing. Youness Dehbi, HafenCity University Hamburg, Germany

Prof. Jaeho Kim — Sejong University, South Korea

Prof. Susana Sargento — University of Aveiro, Portugal

Prof. Manabu Tsukada — The University of Tokyo, Japan

Prof. Jaeseung Song — Sejong University, South Korea

Prof. Dr.-Ing. Christian Zenger — Ruhr University Bochum & PHYSEC GmbH, Germany

Dr. David Rupprecht — Montsecure GmbH, Germany

18:30–20:30 **Social dinner** By invitation

IMMEDIATELY FOLLOWING THE WORKSHOP · 6GEM+ PLENARY MEETING

6GEM+ General Assembly · 7–8 October 2026

7 October, 09:00 – 8 October, 17:00 · Ruhr University Bochum. Separate registration is required: **General Assembly registration** · **session-planning form**.

Dr. Sameh Yamany

Chief Technology and AI Officer

VIAVI Solutions · USA



BIOGRAPHY

Dr. Sameh Yamany is the Chief Technology and AI Officer at VIAVI Solutions, where he drives global innovation across AI, 5G/6G, quantum communications, and advanced network testing. With over 25 years of transformative impact, he has pioneered billion-dollar technologies spanning telecom, biomedical engineering, cloud automation, and AI-driven network assurance — bridging deep R&D with real-world deployment. Prior to VIAVI, he served as CEO of Trendium, redefining telecom customer analytics and leading the company to successful acquisition, and held senior leadership roles at Tektronix Communications, following an early career in academia as a computer science professor. Dr. Yamany holds a Ph.D. in Computer Science and Engineering from the University of Louisville, is the author of *Understanding 5G*, and holds numerous patents and publications across AI, telemedicine, and advanced network systems.

PRESENTATION TOPIC

Real-Time Large Scale Digital Twins: The Foundation for Trustworthy Autonomous 6G Networks.

The telecommunications industry is entering the era of autonomous networks, where Artificial Intelligence will be increasingly responsible for next generation 6G optimization, assurance, fault remediation, and service orchestration. However, autonomous decision-making can only be trusted when AI models are continuously validated against realistic, dynamic, and large-scale representations of the physical network. This presentation argues that real-time large-scale Digital Twins are no longer optional simulation tools but a foundational capability for trustworthy AI-driven network operations. The talk introduces the concept of Generative Reality Digital Twins (GRDTs) that continuously synchronize with live network telemetry, environmental conditions, user mobility, and infrastructure data to create an accurate digital replica of operational networks. Unlike traditional offline simulations, real-time Digital Twins enable closed-loop AI validation, allowing operators to safely evaluate autonomous decisions before deployment, predict their impact, and continuously improve AI models using real-world feedback.

Dr. Rajarajan Sivaraj

Vice President of AI, Data and OSS Platforms

Rakuten · USA



BIOGRAPHY

Dr. Rajarajan (Raj) Sivaraj currently serves as VP of AI, Data and OSS Platforms at Rakuten, where he jointly runs telco AI engineering for Rakuten Mobile (Japan's disruptive Open RAN mobile network operator) and Rakuten Symphony (an Open RAN and cloud-native OSS vendor with global market presence). He previously worked for Aira Technologies as VP of Solution Architecture and for Mavenir as Senior Director of Technology and Strategy, responsible for building the award-winning Network Intelligence-as-a-Service, telco AI full-stack capability for commercial telco operations. Dr. Sivaraj has had previous work experiences at AT&T, Microsoft Research, Intel Labs, NEC Labs and Broadcom.

Dr. Sivaraj's expertise lies at the intersection of cellular RAN telecommunications (4G/5G/NTN and beyond), AI and machine learning, cloud-native software architecture and data engineering, instrumental in building, deploying and successfully operationalizing full-stack AI products for operational telecommunication systems. Dr. Sivaraj finished his PhD in Computer Science from the University of California, Davis, winning the honorable mention for outstanding graduate research. He has had several published papers and granted patents that are widely cited by the industry and academic community.

PRESENTATION TOPIC

INTelligence-of-Things (INToT)

We are witnessing a transformational era of a generational paradigm shift from Internet-of-Things (IoT) to INTelligence-of-Things (INToT). With every device having connectivity, we are availing this ubiquitous connectivity and operational data, available from across devices, towards making them truly smart and intelligent. In this talk, we shall cover how telecommunication networks are becoming truly smart and what kinds of operational intelligence can be generated during large-scale production networks serving commercial traffic. In particular, the talk shall cover how contextualization is extremely important towards generating intelligence of operational value that can guarantee outcomes in the field. The talk shall precisely cover how to use a good blend of domain expertise, data science and learning models, apart from language models towards extracting precise operational intelligence in telecommunication networks that can move the needle in the right direction. This talk is of particular importance in this era, where telecommunication networks have been getting more advanced with intricate design in order to offer best in-class capabilities and services to end users, especially as we are advancing beyond 5G to satellite non-terrestrial cellular networks, 6G and beyond, and where end users are expecting more advanced telecommunication services beyond voice, texting and data. Given that telco networks have ceded a lot of space to OTT offering voice, video and other data delivery services over IP, the talk shall cover how intelligence shall become a fundamental primitive to telco infrastructure that shall modernize and monetize services by CSPs.

Riccardo Pascotto

Vice President, Research Cooperation & Funding (T-Labs, Group Technology)

T-Labs · Group Technology · Germany



BIOGRAPHY

Riccardo is a senior telecommunications and innovation executive with 25+ years of experience at Deutsche Telekom, operating at the intersection of industry, academia and research, and startup ecosystems. In his current role as Vice President and Head of Research Cooperation & Funding and Head of hubraum, he leads international teams and drives global research partnerships, EU funding engagement, and startup incubation activities. He is a passionate networker and international partner manager connecting partners across Europe, Israel, and the US, with active roles in public funding bodies, governance boards, and startup ecosystems. He has a proven track record in designing and executing global innovation programs, including the T Challenge with T-Mobile US. Riccardo strongly believes that people make it happen; as a collaborative and empathetic leader, he thrives in intercultural environments and focuses on empowering diverse, high-performing teams.

PRESENTATION TOPIC

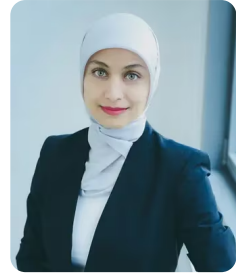
Towards AI native Telco - insights into Deutsche Telekom research & incubation programs

As networks and services evolve towards the 2030s, technology foresight helps identify where AI can create meaningful value for telecommunications—and what an AI-native Telco will require. This talk introduces Deutsche Telekom's research focus, including AI-enabled and autonomous networks and network digital twins, and shares how research and incubation programs help turn emerging ideas into practical applications. It also highlights collaboration with the wider innovation ecosystem, including the T Challenge, where startups and partners contribute fresh perspectives and help explore solutions for the future of telecom.

Dr. Meryem Simsek

Vice President

Nokia Bell Labs · USA



BIOGRAPHY

Dr. Meryem Simsek is Head of the Software and Data Systems Research Lab at Nokia Bell Labs. Building on the legacy of the pioneering UNIX team, her lab advances next-generation software systems, decentralized platforms, trustless data infrastructures, and AI-driven systems and solutions. Previously, Dr. Simsek held scientific and leadership roles at VMware, Intel Labs, UC Berkeley, ICSI, and the Technical University of Dresden. Her research spans software systems, network technologies, cloud computing, AI/ML, multi-agent systems, as well as game theory and control theory. She is the recipient of several prestigious recognitions, including the IEEE Communications Society Fred W. Ellersick Prize (2015), the N2Women Rising Star in Computer Networking and Communications Award (2019), a Top 10 finalist for Edge Computing World's Edge Woman of the Year (2022), and the IEEE ComSoc Tactile Internet Technical Committee Service Award (2023).

PRESENTATION TOPIC

The Network as the Intelligence Fabric: From 6G Connectivity to Ubiquitous AI Execution

Autonomous networking and distributed AI are often viewed as separate research domains, yet both are converging toward a common goal: enabling systems that can reason, adapt, and act autonomously across highly distributed infrastructure. As AI evolves from isolated models into autonomous agents, networks must evolve from passive connectivity fabrics into cognitive infrastructures that actively discover resources, optimize AI placement, orchestrate distributed execution, enforce trust and sovereignty policies, and assure service objectives across devices, edge, cloud, and operator platforms. This talk presents a roadmap toward 6G cognitive infrastructure, where networking and intelligence become deeply intertwined to create a self-improving, trustworthy, and network-aware intelligence fabric capable of delivering autonomous digital services at planetary scale. Inspired by ongoing advances in network-aware ubiquitous inferencing, distributed orchestration, trust, and autonomous network operations.

Dr. Francisco Garcia

Master Scientist

6G Research R&D · Keysight Technologies · Belgium



BIOGRAPHY

Dr. Garcia is a computer scientist with more than three decades of experience in the field of communication systems. He is currently part of the 6G Enterprise and Service Providers organization at Keysight Technologies, where he serves as both a solutions architect and a technical lead for research and development initiatives in 6G and Open RAN. His current work highlights the pivotal role of artificial intelligence and machine learning in shaping the future of communication networks, as well as their integration into advanced test and measurement systems.

PRESENTATION TOPIC

Enabling the AI-native 6G Network — Keysight's End-to-End Platform for Trusted AI RAN

6G will be fundamentally different from previous generations. It will be AI native, meaning AI isn't an add-on, but a core operating principle of the network. But AI cannot function in isolation. It depends on trusted data, validated models, and end-to-end system verification. This is where Keysight plays a critical role. Our tools, testbeds, and digital twins create the foundation for safe, reliable, AI-driven 6G networks.

Mr. Riccardo Guerzoni

Director of the Core Network Group

DOCOMO Euro-Labs · Germany



BIOGRAPHY

Riccardo Guerzoni holds an M.Sc. degree in Telecommunications Engineering from the Università degli Studi di Ferrara, Italy. He is currently Director of the Core Network Group at DOCOMO Euro-Labs in Munich, where he leads research and innovation on next-generation mobile network architectures and services. Riccardo has contributed to the standardization of the 3GPP 5G Core Network since Release 15, with a particular focus on Edge Computing, Industrial IoT, and network evolution. From 2020 to 2025, he has served as a board member of the 5G Alliance for Connected Industries and Automation (5G-ACIA). He is actively involved in several research and standardization initiatives on next-generation mobile networks, including one6G, where he is member of the board, helping shape the evolution toward future 6G systems.

PRESENTATION TOPIC

An Evolutionary 6G System Architecture for Innovative Services Beyond Connectivity

Technical innovations in the 6G System Architecture in comparison to 5G SA should be justified by business opportunities offered by novel services versus the cost of implementing new functionalities, interfaces, and protocols in the network. Nevertheless, an evolutionary 6G Architecture design does not hinder embedding key enablers for new services beyond connectivity. Innovative services like 3D video streaming and AI-powered applications, such as video processing, can be supported by a cloud-native 6G User Plane coupled with the telco cloud offering GPU as a service. In-Network Computing can be used to offload lightweight wireless devices from compute-intensive, energy-consuming workloads and achieve significant performance gains in comparison to the 5G Edge state of the art. Another opportunity for service innovation is the adoption of AI functionalities in the 6GC to handle intent-based requests from user devices and applications. On the other hand, we need to find a middle ground between an AI Agentic core, which may affect reliability and explainability, and a 3GPP-specific AI Domain, which may restrain the adoption of rapidly evolving AI technologies within a 3GPP framework.

Dr. Jose Costa-Requena

Cumucore CEO, Staff Scientist at Aalto

Cumucore & Aalto University · Finland



BIOGRAPHY

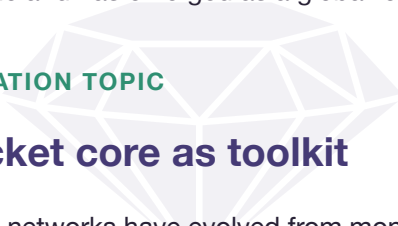
With over 25 years of experience in the telecommunications industry, spanning both the industry, academia, and entrepreneurship, I embarked on my career in the late 1990s as a software developer at Nokia mobile phones. Throughout my tenure at Nokia, I held several positions, including being recognized as one of the top three inventors for over four consecutive years. Additionally, I contributed to 3GPP and coauthored specifications for IETF and UPnP standards. I also chaired or co-chaired working groups for UPnP and DLNA. Parallel to my work at Nokia, I led a research group at the Helsinki University of Technology, where I earned my Licentiate degree in 2004 and my PhD in 2007. After over a decade at Nokia, I transitioned into entrepreneurship, serving as the CTO of a cloud TV company that was subsequently sold. Subsequently, I founded Cumucore, which has been operational for a decade and has emerged as a global leader in TSN technology, particularly in the context of 5G.

PRESENTATION TOPIC

6G Packet core as toolkit

The mobile networks have evolved from monolithic to fully distributed architectures. Softwarization of mobile networks converts them into commodity infrastructure but brings flexibility to develop new services and applications through open interfaces.

The current transformation of mobile systems is equivalent to fixed networks in 90s with Software Defined Networking. Both are critical infrastructures that become toolkits for automatization and networks programmability.



6GEM+

Dr. Athul Prasad

Global Director, AI Industry Solutions

Cloudera Inc. · USA



BIOGRAPHY

Dr. Athul Prasad is a seasoned AI leader who blends deep academic training with hands-on industry leadership. He is a Global Director and industry expert for the technology, media and telecommunications industry verticals at Cloudera. Dr. Prasad received his MBA from the Massachusetts Institute of Technology where he was a Sloan Fellow, and his doctoral degree in electrical engineering from Aalto University. Over the past two decades, he has worked with Samsung, Nokia, NEC and Huawei, and has contributed to over 100 scientific publications and patents. He has extensive research and industry leadership experience as a working group chair for the AI-RAN Alliance and has served as a lead investigator for various European Union-funded projects.

PRESENTATION TOPIC

From Vision to Value in 6G: Shared Compute, Agentic AI, and the AI-RAN Convergence

As 6G moves from visionary concepts to architectural and technological choices, the telecom industry must bridge the gap between research experiments and commercial value. Moving beyond classic optimization, this keynote explores how Agentic AI and open, governed data platforms form the foundation for true AI-native networks. To turn the 6G vision into tangible value, future architectures must seamlessly integrate communication, compute, and autonomous decision-making. Crucially, this evolution requires a fundamental shift toward shared compute environments that natively consolidate AI and RAN workloads. Drawing on strategic directions shaping the AI-RAN Alliance, we will examine how operators can transform their infrastructure into distributed cognitive platforms. Ultimately, this convergence establishes a blueprint for scalable, secure, and highly programmable 6G ecosystems that redefine the telecom industry's future identity.

Dr. Borislav Tadić

Managing Director Production, 1&1 Versatel

1&1 Versatel · Germany



BIOGRAPHY

Dr. Borislav Tadić is member of the Executive Board at 1&1 Versatel with 20+ years of expertise in the IT, telecommunications, and media industries. As Chief Production Officer, he is responsible for the customer projects, infrastructure deployment and modernization, carrier and partner management, and sales service. Prior to this role, Borislav held various executive, consulting, and engineering positions, leading major innovation, automation, and efficiency initiatives across multiple industries in Europe, America, Africa, and Asia.

PRESENTATION TOPIC

Leading Mobile Network Rollout with Focus on Landline Connectivity and Distributed Data Centers

Planning and rollout of fixed network connectivity and processing nodes is the most complex, time-consuming, and cost-intensive part of establishing and modernizing any mobile network. Effectively managing this dimension helps carriers and vendors differentiate themselves in the market. This talk offers practical insight into one of the biggest activities of this type in recent European history.

Dr. Helge Lüders

Senior Technology Strategy Manager

Telefónica Germany GmbH & Co. OHG · Germany



BIOGRAPHY

Dr. Helge Lüders is a Senior Technology Strategy Manager at Telefónica Germany and co-leads the company's Center of Excellence for Advanced Research and Education. With more than 20 years of experience in telecommunications, he works at the intersection of mobile network evolution, spectrum strategy, digital infrastructure, and research and innovation policy.

His current focus includes 5G and 6G networks, non-terrestrial networks (NTN), AI-enabled communications, critical infrastructure resilience, and the commercialization of advanced mobile technologies. He is actively involved in national and European research initiatives and represents Telefónica in industry, regulatory, and public-sector collaborations related to future communication networks.

Dr. Lüders holds a Dr.-Ing. degree in Electrical Engineering from RWTH Aachen University, where his research focused on the physical layer of mobile communication systems as well as on system level simulations.

PRESENTATION TOPIC

The Indispensable Mobile Network in the Digital Era

Mobile networks have become an indispensable foundation of the digital society, connecting consumers, businesses and critical infrastructure across terrestrial, fixed and non-terrestrial environments. As the telecommunications ecosystem moves towards 6G, artificial intelligence, cloud-native architectures, edge computing and the growing demand for sovereign and resilient infrastructure are already reshaping network requirements.

This talk presents an operator perspective on how today's 5G capabilities provide the practical foundation for the evolution towards 6G. Drawing on operational experience with 5G Standalone, network slicing, edge infrastructure, AI-supported network operations and emerging non-terrestrial network capabilities, it highlights how concepts commonly associated with 6G are already being introduced into commercial networks and real-world applications.

The talk argues that the definition, standardization and timing of 6G should be closely aligned with the requirements and pace of AI-driven use cases. Beyond improving connectivity, viable ecosystems, built-in security, post-quantum readiness, spectrum availability and sovereign, federated infrastructure will be essential for turning technological progress into deployable and commercially sustainable services. At the same time, the industry must continue to monetize the substantial investments made in 5G while jointly building the foundations for 6G.

Prof. Jaeho Kim

**Director General, University of IoT Convergence Open Sharing, and Director,
Research Center for AutoTwin Technology**

Sejong University · Department of Artificial Intelligence and Information Technology · South
Korea



BIOGRAPHY

Dr. Jaeho Kim is a professor in the Department of Artificial Intelligence and Information Technology at Sejong University in Seoul, Korea. He also serves as the Director General of University of IoT Convergence Open Sharing and the Director of the Research Center for AutoTwin Technology. Previously, he served as the Director of the Autonomous IoT Research Center at the Korea Electronics Technology Institute (KETI). Recently, he has been leading diverse research projects focused on human-robot interaction, intelligent sensor platforms, intelligent drones, spatial and robot intelligence, and intelligent twin & smart city platforms. His core expertise lies in autonomous intelligent systems, intelligent IoT platforms, and digital twin systems. Currently, he holds prominent leadership roles as the Chair of the IoT and Smart City Platform Project Group at the Telecommunications Technology Association (TTA) and as a member of the National Smart City Committee. Dr. Kim received his Ph.D. in Electrical and Electronic Engineering from Yonsei University. His primary research interests include autonomous unmanned vehicles, digital twin-based robot intelligence learning, and spatial intelligence technologies for AI-driven cities.

PRESENTATION TOPIC

The Evolution of Urban Spatial Intelligence Based on Networked CCTV: Trends and Research Cases

As networked CCTV systems become increasingly intelligent, research is expanding beyond conventional object and abnormal behavior detection toward multi-camera-based urban spatial understanding and situation reasoning. These approaches explore the potential of using CCTV data to understand urban spaces and support applications such as question answering (QA), situation analysis, and urban services. This presentation will introduce recent trends and research cases in spatial intelligence, focusing on the evolution of related technologies and discussing their current status and future directions.

Prof. Susana Sargento

Full Professor and Researcher

Institute of Telecommunications · University of Aveiro · Portugal



BIOGRAPHY

Susana Sargento is a Full Professor in the University of Aveiro and a senior researcher in the Instituto de Telecomunicações, where she is leading the Network Architectures and Protocols group. She was a visiting PhD student in Rice University (2000-2001), and a Guest Faculty in Carnegie Mellon University (2008). Susana has been leading and involved in several European projects, CMU and MIT-Portugal projects, and in several PRR agendas on Autonomous Mobility, Space, Two-wheels vehicles, Tourism and different Testbeds. Her main research interests, with more than 500 publications, are in the areas of self-organized networks, Intelligent Transportation Systems, 5G and beyond networks and services, with 2 large-scale communication and sensing platforms, in Porto and Aveiro, with Aveiro TechCity Living Lab.

Susana co-founded a vehicular networking company in 2012, Veniam. She is the winner of the 2016 European Prize for Women Innovators, the winner of the Femina 2020 prize in Science, and one of the nominees of the Prize ACTIVA Inspiring Women 2021. She was the co-coordinator of the national initiative of digital competences in the research axis INCoDe.2030, belonged to the evaluation committee of the Fundo200M, and is one of the Scientific Directors of the CMU-Portugal Programme. She regularly acts as an Expert for European Research Programmes. Since June 2024, Susana has been a member of the board of directors of Martifer SA, as an independent member, and since July 2024 she has been appointed as President of the Scientific Council of the Instituto de Telecomunicações.

PRESENTATION TOPIC

6G Enabling 3D Networks: From the Ground to the Air

This talk will delve into the 6G enablers required to build a complete ground-to-air network, from O-RAN to continuum far-edge-cloud computing, integrating terrestrial, air, and satellite communications. It will also culminate in verticals and real use cases, from smart and autonomous mobility to emergency scenarios and defense.

Prof. Manabu Tsukada

Associate Professor

Graduate School of Information Science and Technology · The University of Tokyo · Japan



BIOGRAPHY

Manabu Tsukada is an Associate Professor at the Graduate School of Information Science and Technology, the University of Tokyo, and a Designated Associate Professor at the Center for Embedded Computing Systems, Nagoya University. He received his B.S. and M.S. degrees from Keio University in 2005 and 2007, and his Ph.D. from MINES ParisTech (Centre de Robotique) in 2011, after research with the IMARA team at Inria, France. He has contributed to numerous international cooperative-ITS projects including GeoNet, ITSSv6, SCORE@F, CVIS, Nautilus6, and ANEMONE, and served as a board member of the WIDE Project (2014-2022). His current research focuses on cooperative perception, V2X and 6G communications, and end-to-end autonomous driving.

PRESENTATION TOPIC

Cooperative End-to-End Automated Driving as a 6G Service

Cooperative automated driving is often cited as a 6G use case, but the interesting question is not how much bandwidth it needs. It is what the network should carry. In the rule-based era, V2X carried messages that humans standardized by consensus, such as CAM, DENM and CPM, on cycles measured in years. In the end-to-end era, vehicles and roadside units want to share learned internal representations: features, semantic occupancy, and intent. These representations are vendor specific, latency critical, and useless unless the receiver can align them with its own model. This talk uses our field deployments and open-source work at the University of Tokyo, including AutowareV2X, Level 4 cooperative driving in Kashiwanoha, the Co3SOP collaborative occupancy benchmark, and a digital twin evaluation platform combining Autoware, AWSIM and network simulation, to derive four concrete requirements that cooperative driving places on 6G: value-aware transport that degrades gracefully, deadline-aware joint communication and computing, inference-time interoperability between heterogeneous agents, and verifiable trust in shared beliefs. I will close with our JST CRONOS programme, which treats foundation models as the lingua franca between vehicles, infrastructure and people, and with an invitation to shape these requirements together.

Prof. Jaeseung Song

Distinguished Professor

Sejong University · Department of Computer and Information Security · South Korea



BIOGRAPHY

Jaeseung Song received the B.S. and M.S. degrees in computer science from Sogang University and the Ph.D. degree from the Department of Computing, Imperial College London, U.K. He is currently a Full Professor with the Department of Computer and Information Security, Sejong University. Since 2025, he has also held a Visiting Professor position with the Department of Electrical and Computer Engineering (ECE), University of Toronto, Canada. He holds the position of the Technical Plenary Vice Chair of the oneM2M global IoT standards initiative. Prior to his current position, he was with NEC Europe Ltd. and LG Electronics in various positions. His research interests include beyond 5G and 6G, AI/ML enabled network systems, software engineering, and networked systems and security, with focus on the design and engineering of reliable and intelligent IoT/M2M platforms.

PRESENTATION TOPIC

Data Quality Standardization for AI-Native 6G Networks: From ETSI Specifications to European Norms (EN)

As next-generation telecommunications evolve toward 6G, Artificial Intelligence (AI) shifts from being an add-on optimization tool to an intrinsic, native component of network architecture and operations. From zero-touch network management to autonomous resource allocation, the efficacy, safety, and reliability of AI models are fundamentally dictated by the data used to train, evaluate, and operate them. Consequently, the systematic collection, lifecycle management, and validation of telecommunication data have emerged as critical challenges. High-quality, reliable, and compliant data is no longer merely a performance factor—it is a prerequisite for network resilience, regulatory compliance, and operational trust. This presentation addresses the pivotal role of data quality standardization in enabling AI-native 6G ecosystems. We present recent advancements achieved within the European Telecommunications Standards Institute (ETSI), outlining foundational technical specifications, methodologies, and quality metrics that can be used for AI-driven telecom data pipelines. Furthermore, the session highlights the strategic evolution of these standards toward European Norms (EN), examining their impact on harmonized regulatory environments, cross-domain interoperability, and global standardization roadmaps.

Prof. Dr.-Ing. Christian Zenger

CEO & Co-Founder / Professor

Ruhr University Bochum & PHYSEC GmbH · Germany



BIOGRAPHY

Prof. Dr.-Ing. Christian Zenger is Professor at Ruhr University Bochum and CEO and Co-Founder of PHYSEC GmbH. His research focuses on cybersecurity for cyber-physical systems, wireless security, physical-layer security, and resilient connected infrastructures. He received his doctorate summa cum laude in Physical-Layer Security and has been recognized, among others, as an MIT Technology Review “Innovator Under 35” and with the NRW Innovation Award 2024.

PRESENTATION TOPIC

Resilience Beyond the Network: Can We Trust the Physical Edge of 6G?

6G will connect an unprecedented number of physical systems, from industrial infrastructure and autonomous machines to distributed sensors and critical assets. While research on resilient communication architectures is advancing rapidly, an important question remains: Can we trust the physical systems at the edge of the network?

Future resilience therefore needs to extend beyond connectivity, availability, and software security. It must also address the physical integrity of distributed devices and cyber-physical systems, particularly when they are deployed in exposed or difficult-to-protect environments.

This talk explores the transition from network resilience toward cyber-physical resilience. It discusses how physical manipulation, supply-chain attacks, and previously unknown attack techniques challenge conventional security assumptions and argues for physical integrity as an additional layer of trust alongside identity and software integrity. Finally, the talk presents emerging approaches for making the physical state of connected systems measurable and verifiable, enabling future 6G infrastructures not only to communicate reliably, but also to assess whether the systems they connect can still be trusted.

Dr. David Rupprecht

CEO & Co-Founder

Montsecure GmbH · Germany



BIOGRAPHY

Dr. David Rupprecht is CEO and Co-Founder of Montsecure, specializing in mobile-network security, security assurance, and offensive testing for 4G, 5G, and emerging 6G systems. His work spans mobile-network penetration testing, 3GPP and GSMA security assurance, protocol fuzzing, non-terrestrial network security, and the development of automated testing tools such as SEAL and FELINE. He has contributed extensively to mobile-security research and 3GPP security standardization, translating security requirements and real-world attack knowledge into practical, repeatable tests.

PRESENTATION TOPIC

Don't Trust 6G. Test It.

6G is being designed around AI-native operation, software-defined network functions, open interfaces, cloud and edge integration, and non-terrestrial networks. Each of these developments expands the capabilities of mobile networks, but also their attack surface. Experience from 5G shows that a secure architecture on paper does not automatically result in a secure system. Vulnerabilities emerge at the boundaries between specifications, implementations, configurations, vendors, and software releases. If security cannot be tested repeatedly under realistic conditions, it ultimately remains a claim.

This talk argues that 6G must not only be secure by design, but testable by design. Security requirements should be translated into adversarial scenarios, executable tests, and repeatable technical evidence throughout development, integration, deployment, and operation.

Drawing on lessons from mobile-network penetration testing, 3GPP security assurance, protocol fuzzing, and NTN security assessments, the talk outlines how offensive testing can become an integral part of the 6G engineering lifecycle. 6G is still early enough to build this in from the beginning. We should use that opportunity.

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