

EuCNC | 6G Summit

Antwerp, Belgium ■ 3-6 June 2024

6G: from Vision to Reality

www.eucnc.eu

CALL FOR PAPERS

Steering Committee Chairs

Luis M. Correia, IST - U. Lisbon, PT (Chair)
Pavlos Fournogarakis, SNS JU, BE (Vice-Chair)
Matti Latva-aho, Oulu U. - 6G Flagship, FI (Vice-Chair)
Johann Marquez-Barja, imec - University of Antwerp, Belgium

Ari Pouttu, Oulu U. - 6G Flagship, FI

Track Co-Chairs

PHY - Physical Layer and Fundamentals

Sofie Pollin, KU Leuven, BE
Mikko Uusitalo, Nokia Bell Labs, FI
Ke Guan, Beijing Jiaotong University, CN
RAS - Radio Access and Softwareisation
Navid Nikaein, EURECOM, FR
Ilenia Tinnirello, University of Palermo, IT
DongKu Kim, Yonsei University, KR

WOS - Wireless, Optical and Satellite Netw.

Marco Ruffini, Trinity College Dublin, IE

Paulo Monteiro, University of Aveiro, PT

Irene Macaluso, Cabelabs, US

NET - Network Softwareisation

Nina Slamnik-Kriještorac, imec - University of Antwerp, BE

Christos Tranoris, University of Patras, GR

Paul Ruth, RENCI, UNC-Chapel Hill, US

AIU - Applications, IoT, Use cases

Pietro Manzoni, Universitat Politècnica de Valencia, ES

Vera Stavroulaki, Wings ICT Solutions, GR

Daniel Macedo, Federal University of Minas Gerais, BR

OPE - Operational & Experimental Insights

Pang Zhibo, ABB, SE

Thanasis Korakis, University of Thessaly, GR

Violet Syrotiuk, Arizona State University, US

CMA - Components, Microelectronics & Antennas

Andre Bourdoux, IMEC, BE

Jean-Baptiste Dore (CEA-LETI), FR

Shuhei Amakawa, University of Hiroshima, JP

NVS - Next-Generation Visions & Sustainability

Marja Matinmikko-Blue, Oulu U. - 6G Flagship, FI

Azeddine Gati, Orange, FR

Xueli An, Huawei, DE

Panels Co-Chairs

Liesbet Van der Perre - KU Leuven, BE

Zarrar Youzaf, NEC, DE

Special Sessions Co-Chairs

Claudio Palazzi, University of Padova, IT

Paulo Marques, Alibemart, PT

Jessica Carneiro, Australo, ES

Workshops Co-Chairs

Maria Chiara Campodonico, Martel, CH

Hans Van den Berg, University of Twente, NL

Ivan Seskar, Rutgers University, US

Tutorials Co-Chairs

Silvia Mirri, University of Bologna, IT

Josef Noll, University of Oslo, NO

Kaushik Chowdhury, Northeastern University, US

Patronage Co-Chairs

Michael Peeters, imec, BE

Kris Hermus, imec, BE

Esa Posio, FI

Exhibitions Co-Chairs

Jeroen Famaey, imec - University of Antwerp, BE

Emrah Kinav, Ford Otosan, TR

Publication Chair

Adnan Shahid, imec - Ghent University, BE

IEEE ComSoc Liaison

Stefano Bregni, Polit. Milano, IT

COST Liaison

Ralph Stübner, COST, BE

URSI Liaison

Sana Salous, Durham U., UK

EurAAP Liaison

Jose Garcia-Pardo, U. Cartagena, ES

Key dates:

26 Jan. 2024 – Papers submission deadline

01 Apr. 2024 – Notification of acceptance

12 Apr. 2024 – Final paper submission

The 2024 EuCNC & 6G Summit builds on putting together two successful conferences in the area of telecommunications: EuCNC, in its 33rd edition of a series, supported by the European Commission; the 6G Summit, in its 6th edition, originated from the 6G Flagship programme in Finland, one of the very first in its area. The conference is sponsored by the IEEE Communications Society (ComSoc), the European Association for Signal Processing (EURASIP) and the European Association on Antennas and Propagation (EurAAP) and supported by the European Commission. The conference addresses various aspects of Beyond 5G/6G communications systems and networks. It brings together cutting-edge research and world-renowned industries and businesses, globally attracting in the last years more than 900 delegates from more than 40 countries all over the world, to present and discuss the latest results, and an exhibition with more than 50 exhibitors, for demonstrating the technology developed in the area, namely within research projects from EU R&I programmes.

PHY - Physical Layer and Fundamentals

Beyond 5G & 6G and THz communications
Reconfigurable radios and new radio heads
Massive and Ultra-Massive MIMO
AI/ML in the PHY Layer
Propagation & channels at cm, mm Waves & THz
New air interfaces, waveforms, modulation & coding techniques
Non-Terrestrial Networks
Reconfigurable Intelligent Surfaces
Semantic communications
Radio based localization, sensing and mapping
Integrated sensing and communication
Physical layer security
6G Spectrum

RAS - Radio Access and Softwareisation

Spectrum management and reutilisation
RAN intelligence and data-driven networking
3D RAN and non-Terrestrial Networking
RAN Slicing & QoS, Reconfigurable RAN & RADIO
Observability and Business intelligence in RAN
Cloud-Native RAN, OAMs and Edge Computing
CI/CD/DevOps methodology for RAN
Open RAN and Realtime RAN Control
Open Radio Access

WOS - Wireless, Optical and Satellite Nets.

Beyond 5G & 6G access and core networks
Advances in M2M, WSN, IoT networks
Novel architectures and protocols for passive optical networks
Control planes for access/metro/wireless (converged) networks
Inter-satellite optical networks
Satellite and terrestrial networks convergence
VLEO satellite systems and networks
Communications for unmanned platforms (UxV)
TSN for industrial communications
Communications for navigation and observation
Green wireless/optical/satellite networks
AI/ML for wireless/optical/satellite networks
Quantum communications networks
Optical wireless communications
Integrated Sensing and Communication
Sensing and optical performance monitoring techniques
Radio over fibre
DSP Algorithms in optical and wireless transmission systems

NET - Network Softwareisation

Full-stack automation and orchestration
Programmable networking
Network and Connectivity as a Service
Network digital twin
AI/ML-driven communications
Event-driven network programming

Dynamic network slice management
Quality and energy-aware networking
Zero-touch management of Beyond 5G/6G services
Cloud networking and infrastructure
User-edge-cloud computing continuum in Beyond 5G/6G era
Open-source virtualized service platforms
Quantum networking
Blockchain in networking
Network security and cybersecurity trends
Network troubleshooting and diagnostic tools
Monitoring and analytics in softwareized networks

AIU - Applications, IoT, Use cases

Environmental sensing in rural and extreme environments
IoT architectures and management techniques
Critical communications and public safety
Digital health and wellbeing
Emerging Trends in IoT Applications
Augmented and mixed reality
Autonomous driving and V2X solutions
Factory automation and industrial IoT solutions

OPE - Operational & Experimental Insights

Beyond 5G and 6G trials and experiments
Open implementations, testbeds and experiments
Evaluation and analysis of experimental data
Deployment and integration insights from verticals
Plug-and-play deployments and experiments
Network forensics & network instrumentation
Next Generation Internet architectures and experimentation

CMA - Components, Microelectronics & Antennas

Antenna system, design, packaging & integration
RIS components & integration
RF front-end and mmwave/THz techniques
Low power silicon RF, including wake-up
Next generations DSP, incl. RISC V & ASIP
Edge AI component technologies
Digital HW architecture for ultra-high speed and/or ultra-low latency PHY
New component technologies and materials
MIMO, OTA and 6G antenna testing
Circuits, techniques and architectures for full-duplex
Transceivers and architectures for ICAS
CMOS and III-V co-integration
Hardware design for sustainability and energy-efficiency

NVS - Next-Generation Visions & Sustainability

Key performance indicators and key value indicators for 6G
Visions, requirements and/or emerging technology trends for 6G
6G use cases, business studies and/or regulatory perspectives
6G environmental, social and/or economic sustainability aspects
Techniques for reducing 6G's environmental impact
Life cycle assessment techniques for 6G

