



4th South American Conference on Visible Light Communication

8-10 November 2023, Santiago, Chile

Organized by: Multidisciplinary Research Centre
for Telecommunications Technologies Usach



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In recent years, there has been a growing research and development in the field of Visible Light Communications, within the academy, as well as in the industry at a global level. The VLC technology offers lighting, data communications, localization and sensing, operating in unlicensed bands. VLC is complementary to radio frequency technologies, particularly in 5G, B5G and 6G wireless communications.

The Fourth South American Conference on Visible Light Communications (SACVLC) aims to bring together researchers, software and hardware developers, and will be held on November 8 - 10, 2023. A number of keynote and invited speakers are invited to SACVLC 2023 to outline the latest in research and innovation in VLC. We are inviting you to attend this event by submitting technical papers.

IMPORTANT DATES

Paper submission deadline - August 13, 2023
Notification of acceptance - September 13, 2023
Camera ready paper - October 10, 2023

VISIT OUR WEBSITE

<https://www.sacvlc.cl>



Contact: Raul Zamorano-Illanes
University of Santiago, Chile
e-mail: raul.zamorano@usach.cl

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CONFERENCE TOPICS

Optical Networks

AI and ML for optical systems and networks
 Big data driven optical networking
 Data analytics for optical networks
 Elastic, flexible rate and flexi-grid optical networks
 Free-space optical networks
 FSOWC on Education and Society
 Optical camera communications
 Optical network control and management
 Optical network survivability and availability
 Optical vehicular networks
 Optical and wireless convergence
 Routing and spectrum assignment for optical networks
 Software defined optical networks
 Ultraviolet communications and networks
 Underwater optical communications
 Virtualization and slicing in optical networks
 Visible light communications

Mobile and Wireless Networking

Cellular systems, 4G/5G/B5G/6G
 Cognitive radio networks
 Device-to-device/machine-to-machine communications
 Green wireless networks
 Large-scale LEO satellite networking
 Low power wide area networks
 Opportunistic wireless networks
 Pervasive and wearable computing and networking
 Reconfigurable wireless networks
 Software-defined wireless networks
 Underwater wireless networks
 Vehicular networks
 Unmanned aerial vehicle
 Wireless network virtualization
 Wireless multimedia networks
 Wireless networking techniques based on AI
 WLAN, WPAN, and other home/personal networking technologies

Communication Services, Software and Multimedia Applications

Cooperative networking for streaming media content
 E-health, E-governance, E-agriculture, etc.
 High quality service provisioning for multimedia applications
 Location-based services
 ML techniques for video delivery and service
 ML techniques for multimedia content analysis
 Multimedia cloud, streaming, multicast and broadcast services
 Multimedia fog/edge computing and communication
 QoE and QoS
 Quality-oriented routing algorithms
 Real time communication services
 Service orchestration and management
 Service security and privacy
 Triple and quadruple play services

Quantum on Communications

Quantum Photonics & Optics
 Quantum Communications & Cryptography
 Quantum Algorithms & Information
 Quantum Computing
 Quantum Software Engineering
 Quantum Sensing & Metrology
 Quantum Hardware Engineering
 Quantum Applications
 Quantum Education & Training

Communications Theory & Signal Processing

Communication theory of ad-hoc and sensor networks
 Communication theory of distributed and edge computing
 Communication theory of networks and cross-layer design
 Multi-antenna, multi-user and multi-node systems
 Radio communications
 Satellite & space communications
 Signal processing techniques in 5G/B5G/6G
 Signal processing for QoS and QoE based applications
 Signal processing for smart grid and green communications
 Signal processing for sensor networks and IoT
 Signal processing for software defined and cognitive radio
 Signal processing for power line communications
 Signal processing for millimeter and tera-Hz communication
 Theoretical aspects of blockchain and ML in networks

Next-generation Networking and Internet

5G/B5G/6G architecture
 Blockchain in next generation communications and networks
 Content-centric networking
 Centralized-RAN and Cloud-RAN architectures
 Future Internet and next-generation networking architectures
 High speed architectures for next generation routers switches
 Management of service-oriented control plane in 5G/B5G
 Network functions virtualization
 Next-generation access networks
 Next-generation anomaly-intrusion-attack detection prevention
 Next-generation flow management
 Next-generation IP multimedia subsystem
 Next-generation network management and control
 Parallel architectures for next generation routers/switches
 Software-defined networking

AI, Big Data and ML for Networking

AI and ML for 5G/B5G/6G and network slicing
 AI and ML for virtualized and software-defined networks
 AI, neural networks, and deep learning for network management
 AI Education & Training
 Big data for smart cities and smart homes
 Big data for cloud computing, communications and networking
 Big data for smart grids
 Big data with IoT and cyber-physical systems
 Cloud and network data analytics, modelling and visualization
 Cooperative learning for software-defined and virtualized networks
 Data analytics for QoS and traffic classification
 Data analytics for faults and root-cause analysis
 Data-driven management of virtualized infrastructure
 Data-driven management of IoT and cyber-physical systems
 Data-driven management of SDN and data centers
 ML based distributed training and learning over-the-air
 Operational analytics and intelligence
 Predictive analytics and real-time analytics

Selected Areas in Communications

Blockchain in communications and networks
 Cloud, fog and edge computing
 Internet-of-Things
 Satellite Communication Systems
 Smart cities and urban computing
 Smart grid communications
 Social networks, crowdsourcing, and crowdsensing
 Tactile Internet- History of VLC
 VLC in popular culture



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