



# IEEE LATIN-AMERICAN CONFERENCE ON COMMUNICATIONS

November 17-19, 2021

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## Call for Papers

*COVID-19 Update / Hybrid Conference Format:*

*Authors and participants can attend the conference in person or remotely.*

The LATINCOM 2021 Organizing Committee is inviting submissions of original, unpublished, high-quality research papers focused on (but not limited to) the following topics of interest:

### 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
- Opportunistic wireless networks
- Pervasive and wearable computing and networking
- Reconfigurable wireless networks
- Software-defined wireless networks
- Underwater wireless networks
- Vehicular networks
- UAV
- Wireless network virtualization
- Wireless multimedia networks
- WLAN, WPAN, and other home/personal networking technologies
- Wireless networking techniques based on AI

### 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

### Communication QoS, Reliability and Performance Modeling

- Networks and communication systems modelling
- Networks and communications performance evaluation
- Reliability of systems and networks
- Traffic measurement, modelling, visualization, and engineering
- Security and trust in network design
- Integration aspects in IoT and Big Data systems
- Design of cloud, edge and other distributed computing networks
- QoS and network efficiency

### 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
- 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

### 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
- Big data for smart cities and smart homes
- Big data for cloud computing and networking
- Big data for 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
- Smart cities and urban computing
- Smart grid communications
- Social networks, crowdsourcing, and crowdsensing
- Tactile Internet

### Conference Proceedings and Journal Special Issue

Accepted and presented papers will be published in the IEEE LATINCOM 2021 Conference Proceedings and submitted to IEEE Xplore® as well as other Abstracting and Indexing (A&I) databases. Authors of selected papers from LATINCOM 2021 will be invited to submit an extended version for possible publication in special issues of the following journals:

- [International Journal of Network Management](#)
- [Journal of Communication and Information Systems](#)

## IMPORTANT DATES:

**August 16, 2021**

Paper submission deadline

**August 16, 2021**

Submission of tutorial proposal

**September 14, 2021**

Notification of acceptance

**September 27, 2021**

Camera-ready papers

**November 17-19, 2021**

Conferences dates Santo Domingo, DR

