



Call for Papers for *Communication Software and Multimedia Symposium*

Symposium Co-Chairs

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Scope and Motivation

The Communication Software and Multimedia Symposium will provide a platform to present state-of-the-art research work on challenging issues related to software design, deployment, delivery, and management of services and multimedia applications. It will also provide an opportunity for face-to-face discussions and information sharing among experts from both academia and industry.

Topics of Interest

The Communications Software and Multimedia Symposium covers challenges and advances for network softwarization and enablers, service delivery, management, and multimedia applications in fixed and mobile communication networks. The symposium solicits original contributions in the following topics.

Network Softwarization & Services

- Network function virtualization
- Service function chaining
- Resource sharing & isolation
- Software defined networking
- Virtualization technologies/techniques
- (mobile/multi-access) edge and fog computing
- MEC-, SDN-, NFV-based network services
- Service, slice, and infrastructure monitoring
- Performance, interoperability, and scalability challenges/issues
- Security and privacy issues in virtualized environments
- Mobile core networks and their slicing
- Slice programmability, modeling, composition algorithms and deployment
- Network/service orchestration and management
- Experimental testbeds, trials and deployment
- Business models & new verticals
- Model and delivery platforms
- Scalable video delivery

- Cooperative networking for streaming media content
- Service overlay networks
- Massive network data analytics
- Machine learning for network service enhancement
- Proactive management of the softwarized network infrastructures
- Distributed systems and applications, including Grid Services
- Convergence of communication and global services
- Communications software in vehicular communications
- Architectures for cooperative communications and ubiquitous computing
- Software Defined Radio Access Network (RAN)

Quality in Services and Multimedia Applications

- Quality of Experience (QoE) modelling and metrics
- Adoption of QoE metrics and models for assessment, control and management of multimedia services
- Strategies of End-to-End QoE management
- Quality-oriented routing algorithms
- Video quality assessment and impairment concealment
- Performance studies of digital media ecosystem
- High quality service provisioning for multimedia applications

Multimedia Systems and Services

- Multimedia cloud services
- Multimedia streaming, multicast and broadcast services
- Virtual/augmented/mixed reality
- 360-degree video streaming
- Multimedia security and privacy
- Multimedia edge computing and fog communication
- SDN and NFV support for multimedia
- Multimedia Internet-of-Thing (IoT)
- Mobile multimedia and 5G
- Wearable multimedia
- Machine learning techniques for multimedia content analysis
- Machine learning techniques for video delivery and service
- Multimedia Big data and social media
- Energy-efficient multimedia streaming
- Web Services and distributed SW technology
- IMS and multimedia services
- Home and entertainment digital media ecosystem
- IPTV service and home networking
- Triple and Quadruple play services
- P2P and P2P-SIP services

Service Management

- Security and privacy in network and service management
- Scalability and reliability issues
- Charging, pricing, business models
- Context awareness and personalization
- Next generation services and emerging threats
- Cross-layer optimization for multimedia service support

Important Dates

Paper Submission: 12 October 2020

Notification: 25 January 2021

Camera Ready and Registration: 22 February 2021

How to Submit a Paper

All papers for technical symposia should be submitted via [EDAS](#). Full instructions on how to submit papers are provided on the IEEE ICC2021 website: <https://icc2021.ieee-icc.org/>