



## Call for Papers for *Communication Software and Multimedia Symposium*

### **SYMPOSIUM CO-CHAIRS:**

Young-Tak Kim, Yeungnam University, Korea, email: [ytkim@yu.ac.kr](mailto:ytkim@yu.ac.kr)

Marwane Ayaida, University of Reims Champagne-Ardenne, France, email: [marwane.ayaida@univ-reims.fr](mailto:marwane.ayaida@univ-reims.fr)

Qing Yang, University of North Texas, email: [qing.yang@unt.edu](mailto:qing.yang@unt.edu)

### **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 and 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)
- AI applications for SDN and NFV
- Machine Learning and Deep Learning for SDN and NFV

### **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
- AI applications for quality multimedia applications
- Machine Learning and Deep Learning for quality 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/beyond 5G/6G
- Wearable multimedia
- Machine learning techniques for video delivery and service
- Multimedia Big Data and social media
- Energy-efficient multimedia streaming
- IMS and multimedia services

- Home entertainment and digital media ecosystem
- IPTV service and home networking
- Triple and quadruple play services
- P2P and P2P-SIP services
- AI applications for Multimedia and services
- Machine Learning and Deep Learning for Multimedia and services

### **Service Management**

- Security and privacy in network and service management
- Scalability and reliability issues
- Pricing and business models
- Context awareness and personalization
- Next generation services and emerging threats
- Cross-layer optimization for multimedia service support
- AI applications in network and service management
- Machine Learning and Deep Learning in network and service management

### **IMPORTANT DATES:**

**Deadline for paper submission:** 11 October 2021

**Date for notification:** 18 January 2022

**Deadline for final paper submission:** 15 February 2022