



IEEE Global Communications
Conference
9-13 December 2018
Abu Dhabi, UAE
Gateway to a Connected World



Call for Papers

Communication QoS, Reliability and Modeling Symposium

Symposium Co-Chairs

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Scope and Topics of Interest

In modern communication networks, different technologies need to cooperate with each other for end-to-end quality of service (QoS) provisioning, support a wide range of multimedia applications with a huge number of customers represented not only by humans, but more and more by things and robots interconnected to each other and to data centers. The Communication QoS, Reliability and Modeling (CQRM) Symposium aims at providing an international venue for the discussion of research advances in communications service provisioning, quality of service/experience technologies, and analytical and experimental techniques to allow the design of communication networks as a reliable information infrastructure with QoS capability. The scope of this symposium is agnostic to network technologies. Specifically, the goal is to address the key challenges to provide the required level of QoS, security and reliability to coexisting networks that are heterogeneous in nature, in size, and in the type of information transmitted. Topics of interest for the CQRM Symposium include, but are not limited to:

Networks and Communication Systems Design

- Design and Evaluation of Energy-Efficient Networks and Services
- Design and Evaluation of Software-Defined Networking (SDN) Architectures and Networks
- Design and Evaluation of Application / Service Oriented Networking
- Cross-layer Design, Modeling and Optimization
- Design and Evaluation of Content Distribution Networks (CDNs)
- Design and Evaluation of Smart Cities



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- Design of Networks and Network Services
- Cooperative Networking and Unified Management of Connectivity
- Tradeoff Between Performance and Energy-Efficiency in Network Design
- Design of Network Architectures/Technologies for Ubiquitous 5G Multitenant Networks

QoS and Network Efficiency

- Performance Evaluation Techniques
- Quality and Performance of Network and Services
- Quality, Scalability and Performance in the Internet
- Quality, Reliability and Performance in Optical and Multi-layer Networks
- Quality and Performance in Autonomic Systems
- Metrics and Models for Quality of Experience (QoE)
- TCP/IP Variants and Performance
- Multimedia Streaming, Adaptive Streaming, MPEG-DASH
- Quality and Efficiency for Web browsing, HTTP 2.0
- Quality in Multimedia Networks including Voice over IP and IPTV

Networks and Communication Systems Modeling and Performance Evaluation

- Quality and Performance in Wireless and Mobile Networks
- Wireless and Mobile Networks Performance
- Modeling and Performance of 5G Wireless Radio Networks
- Performance Evaluation of Mobile Devices in Wireless Communications
- Performance of Mobile Cloud Networks
- Modeling and Performance of Socially-Aware Wireless and Mobile Networks
- Performance Evaluation of SDN-based Networks
- Performance and Efficiency of Energy Harvesting



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Network Measurement and Monitoring Techniques

- Network Measurement and Monitoring Techniques
- Network Measurement for Smart Cities and Internet of Things
- Network Simulation Techniques
- Measurement and Evaluation Techniques of Energy-Efficient Communication Systems
- Performance Evaluation and Design of Cognitive Network Architectures
- Performance Evaluation and Integration in Smart Grids Communications and Demand Response Techniques
- Network Traffic Characterization and Measurement
- Machine-Learning and Artificial Intelligence for Traffic/QoE Management
- Integrated Multitenant 5G Platforms

Design of Cloud, Grid and Distributed Computing Networks

- Quality and Performance in Grid, Distributed and Cloud Computing
- Quality and Performance in Overlay (including Peer-to-Peer) Networks
- Quality and Resource Allocation for Network Services, VPN, Web
- Performance Evaluation and Design of Cloud Networks
- Performance Evaluation and Design of Vehicular Cloud Networks
- Resource Allocation for Networks and Their Services
- Software-Defined Networking (SDN) and Network Functions Virtualization (NFV)
- Quality and Performance in Mobile Edge and Fog Computing Systems
- Performance Evaluation of Blockchain-based Decentralization schemes for IoT

Integration Aspects in IoT and Big Data Systems



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- Quality, Measurements and Performance in the Internet of Things (IoT) and Big Data Applications
- IoT Platforms, Integration and Services
- Design and Scalability of Smart Cities and Crowd Sensing Applications
- Quality, Measurements and Performance in Cyber Physical Systems
- Scalability and Performance of Edge Computing and Distributed Computing Systems
- Integration of Objects, Devices and Systems in an IoT Environment
- Integration of blockchain schemes with 5G networks.

Security, Reliability and Trust in Network Design

- Security, Privacy and Trust by Design and Performance Evaluation
- Scalability, Robustness and Resilience
- Integration of Behavioral (or Soft) Biometrics into IoT Environments
- Integration of blockchain schemes with 5G networks.
- Standardization Aspects of QoS and Reliability