

**Call for papers for  
Communication QoS, Reliability and Modeling Symposium  
(CQRM)**

**Symposium Track Co-Chairs**

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**Submissions must be done through EDAS at: <https://edas.info/newPaper.php?c=22636&track=81050>  
The paper submission deadline is October 14, 2016.**

**Scope and Motivation**

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 multi-media 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 the node characteristics, in the number of nodes, and in the type of information transmitted.

**Main Topics of Interest**

**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 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 for 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 of Mobile Cloud Networks
- Performance Evaluation of SDN-based Networks
- Performance and Efficiency of Energy Harvesting

## **Network Measurement and Monitoring Techniques**

- Network Measurement and Monitoring Techniques
- 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
- Resource Allocation for Networks and Their Services
- Software-Defined Networking (SDN) and Network Functions Virtualization (NFV)

## **Integration Aspects in IoT and Big Data Systems**

- 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

## **Security, Reliability and Trust in Network Design**

- Security, Privacy and Trust by Design and Performance Evaluation
- Scalability, Robustness and Resilience
- Standardization Aspects of QoS and Reliability

## **Biographies**

**Dzmitry Kliazovich** is a Senior Research Scientist at the Faculty of Science, Technology, and Communication of the University of Luxembourg. He holds an award-winning Ph.D. in Information and Telecommunication Technologies from the University of Trento (Italy). Dr. Kliazovich is a holder of a large number of scientific awards, mainly from the IEEE Communications Society and European Research Consortium for Informatics and Mathematics (ERCIM). He chaired a number of highly ranked international conferences and symposia. Dr. Kliazovich is the author of more than 100 research papers. He is the Associate Editor of the IEEE Communications Surveys and Tutorials and of the IEEE Transactions of Cloud Computing journals. He is a Vice Chair of the IEEE ComSoc Technical Committee on Communications Systems Integration and Modeling. Dr. Kliazovich is a coordinator and principal investigator of the Energy-Efficient Cloud Computing and Communications initiative funded by the National Research Fund of Luxembourg. His main research activities are in the field of energy efficient communications, cloud/edge computing, next-generation networking, and Internet of Things (IoT).

**Sami Souihi** is an associate Professor of Computer Science at Networks and Telecommunication (N&T) Department of Paris-Est University, France. He received his MSc degree from the University of Paris 6, France in 2010, and did PhD from UPEC in 2013. His research work focuses on adaptive mechanisms in large-dynamic-scale networks (especially IoT). These mechanisms are based on context-enhanced knowledge, on Network Functions Virtualization (NFV) and also on Software-Defined Networking (SDN). He also served as a Technical Program Committee (TPC) member for IEEE international conferences (SACONET, ICC, WWIC, ...).

**Kohei Shiomoto** is Senior Manager of Communication & Traffic Service Quality Project, NTT Network Technology Laboratories, NTT, Tokyo, Japan. He joined the Nippon Telegraph and Telephone Corporation (NTT), Tokyo, Japan in April 1989. From 1996 to 1997 he was engaged in research in high-speed networking as a Visiting Scholar at Washington University in St. Louis, MO, USA. Since 1997, he had been engaged in research and development in the areas of IP/GMPLS networking, IP and optical networking at NTT Network Innovation Laboratories and NTT Network Service Systems Laboratories. From 2006 to 2011, he lead the IP Optical Networking Research Group in NTT Network Service Systems Laboratories. He was involved in standardization of GMPLS in the IETF.

Since 2011, he lead the traffic engineering research group in NTT Service Integration Laboratories. Since 2012, he has been leading Communication & Traffic Service Quality Project of NTT Network Technology Laboratories, NTT, Tokyo, Japan. He received the B.E., M.E., and Ph.D degrees in information and computer sciences from Osaka University, Osaka in 1987 1989, and 1998, respectively.

He is a Fellow of IEICE, a Senior Member of IEEE, and a member of ACM.