

Call for Papers for *Communication QoS, Reliability and Modeling Symposium*

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

Sponsoring Technical Committees:

- Communications Systems Integration and Modeling (CSIM)
- Communications Quality & Reliability

How to Submit a Paper:

The IEEE GC 2017 website provides full instructions on how to submit papers. You will select the desired symposium when submitting.

Paper Submission: 18 April 2017

Paper Notification: 25 July 2017

Camera-Ready Paper: 4 September 2017

Symposium Co-Chairs

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Mianxiong Dong received B.S., M.S. and Ph.D. in Computer Science and Engineering from The University of Aizu, Japan. He is currently an Associate Professor in the Department of Information and Electronic Engineering at the Muroran Institute of Technology, Japan. Prior to joining Muroran-IT, he was a Researcher at the National Institute of Information and Communications Technology (NICT), Japan. He was a JSPS Research Fellow with School of Computer Science and Engineering, The University of Aizu, Japan and was a visiting scholar with BBCR group at University of Waterloo, Canada supported by JSPS Excellent Young Researcher Overseas Visit Program from April 2010 to August 2011. Dr. Dong was selected as a Foreigner Research Fellow (a total of 3 recipients all over

Japan) by NEC C&C Foundation in 2011. His research interests include Wireless Networks, Cloud Computing, and Cyber-physical Systems. He has received best paper awards from IEEE HPCC 2008, IEEE ICSS 2008, ICA3PP 2014, GPC 2015, IEEE DASC 2015 and IEEE VTC 2016. Dr. Dong serves as an Editor for IEEE Communications Surveys and Tutorials, IEEE Network, IEEE Wireless Communications Letters, IEEE Cloud Computing, IEEE Access, and Cyber-Physical Systems (Taylor & Francis), as well as a leading guest editor for ACM Transactions on Multimedia Computing, Communications and Applications (TOMM), IEEE Transactions on Emerging Topics in Computing (TETC), IEEE Transactions on Computational Social Systems (TCSS), Peer-to-Peer Networking and Applications (Springer) and Sensors, as well as a guest editor for IEEE Access, Peer-to-Peer Networking and Applications (Springer), IEICE Transactions on Information and Systems, and International Journal of Distributed Sensor Networks. He has been serving as the Program Chair of IEEE SmartCity 2015 and Symposium Chair of IEEE GLOBECOM 2016, 2017. Dr. Dong is currently a research scientist with A3 Foresight Program (2011-2016) funded by Japan Society for the Promotion of Sciences (JSPS), NSFC of China, and NRF of Korea.

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Dr. Christos Verikoukis got his Ph.D. from the Technical University of Catalonia in 2000. He is currently a Fellow Researcher and Head of the SmartTech department at CTTC, and an adjunct associate professor at UB. He has published 99 journal papers and over 170 conference papers. He is also co-author in 2 books, 16 chapters in different books and in 3 patents. He has supervised 15 Ph.D. students and 5 Post Docs researchers since 2004. Dr.Verikoukis has participated in more than 30 competitive projects while he has served as the Principal investigator in national projects in Greece and Spain as well as technical manager in EC funded projects. Dr.Verikoukis received best paper awards from the IEEE ICC 11, IEEE GLOBECOM 2014, IEEE ICC 2015, , EUCNC/Euracon 2016 conferences and the EURASIP 2013 Best Paper Award for the Journal on Advances in Signal Processing. He was the general Chair of the 17th, 18th and 19th IEEE Workshop on Computer-Aided Modeling, Analysis and Design of Communication Links and

Networks (CAMAD), and the TPC Co-Chair of the 15th IEEE International Conference on ehealth Networking, Application & Services (Healthcom) and the 7th IEEE Latincom conferences. He also served as the symposium co-chair of the CQRM symposium in the IEEE ICC 2015 and ICC 2016 conferences. Dr. Verikoukis serves as an Editor for IEEE Communications Surveys and Tutorials and the IEEE Trans. on Green Communications and Networking. He is currently the Chair of the IEEE ComSoc Technical Committee on Communication Systems Integration and Modeling (CSIM).