Next Generation Networking and Internet Symposium

SYMPOSIUM CO-CHAIRS

Laurent Ciavaglia, Nokia Bell Labs, France
Luca Foschini, University of Bologna, Italy
Alessio Botta, University of Naples, Italy

SCOPE AND MOTIVATION

We are assisting to a big rise of new architectures and technologies enabling next generation networking and internet. As a consequence, new challenges and research issues are also arising. Emerging topics of notable importance include software defined networking (SDN), network function virtualization (NFV), information-centric networking (ICN), cloud and fog computing, multi-access edge computing (MEC), network heterogeneity, scalability, protocols, services and applications, security, manageability, dependability, quality of experience for added services, and performance predictability. Furthermore, with 5G gaining momentum, many challenging issues are also affecting next-generation broadband wireless networks, such as network densification, spectrum expansion, many techniques to enhance spectrum efficiency, self-organization, energy efficiency operations, mobile cloud computing, mobility management, and indoor localization.

The Next Generation Networking and Internet (NGNI) Symposium at IEEE Globecom 2019 aims to consolidate and disseminate the latest developments and advances in these emerging focus areas. This symposium invites participation from academic, industry, and government researchers working in the broad area of next-generation networking and Internet, including methodologies, techniques, technologies, theories, services, architectures, and protocols. The NGNI Symposium will provide a forum for researchers to get together, to present a latest snapshot of the cutting-edge research, and to foster technical debate on future directions in this exciting area.

MAIN TOPICS OF INTEREST

- ➔ Networking for Cloud and Fog computing
- ➔ Mobile Cloud Computing (MCC) and Multi-access Edge Computing (MEC)
- ➔ Data center network architectures and performance
- ➔ Software Defined Networking (SDN) and Network Function Virtualization (NFV)
- ➔ NFV Management and Orchestration
- ➔ Information Centric Networking (ICN)/ Named Data Networking (NDN)
- ➔ Internet of Things (IoT), M2M, D2D, MTC

- ➔ Content-centric networking: caching, naming, distribution, load balancing, resiliency, traffic engineering, congestion control
- ➔ Future Internet and next-generation networking architectures
- ➔ High speed and programmable architectures for next generation routers and switches
- ➔ Mobile security: device, application, and data
- ➔ Next-generation anomaly, intrusion, and attack detection/prevention
- ➔ Heterogeneous multi-layer and multi-domain wireless-wireline internetworking
- ➔ Free space optical (FSO) networks and Visible light communication (VLC)
- ➔ Indoor localization and navigation
- ➔ Intent-based network control and management
- ➔ Internet economics, pricing, accounting, and growth modelling
- ➔ Internet and network outages, robustness, survivability, and resilience
- ➔ Integrated networking, storage, and computing
- ➔ Networking flying vehicles such as UAVs and drones
- ➔ Networked and Cloud Robotics
- ➔ Next-generation access networks
- ➔ Next-generation flow management: resource sharing, congestion control
- ➔ Next-generation Internet applications and services, including virtual/augmented reality, interactive media, voice and video, games, and immersive applications
- ➔ Next-generation IP multimedia subsystem: architecture and design
- ➔ Next-generation networking protocols
- ➔ Next-generation network management and control
- ➔ Open Communities, Open API, Open Source
- ➔ Operational and research issues with IPv6
- ➔ Overlay and peer-to-peer (P2P) networking
- ➔ Packet classification and forwarding mechanisms at ultra-high link rates
- ➔ Quality of Service (QoS) and Quality of Experience (QoE) in next-generation networks
- ➔ Resource orchestration in next-generation networks
- ➔ Self-protection and self-organization networking
- ➔ Addressing and naming with the presence of mobility and portability
- ➔ Centralized-RAN, Could-RAN, and Fog-RAN architectures
- ➔ Converged networks and applications

IMPORTANT DATES

Paper Submission	15 April 2019
Acceptance Notification	15 July 2019
Camera-Ready	16 August 2019

SUBMISSION LINK