Call for Papers

Next Generation Networks and Internet Symposium

Symposium chairs

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Scope and Topics of Interest

We are witnessing an exciting period in next generation Internet-networking research that has to deal with many innovations triggered by high-frequency computing network equipment and computing-harvesting next generation services. Thanks to the huge enhancement of computing processor and interface architectures, communication networks can now handle network functions implemented as virtualized machines making large use of software elements. Communication devices can now host very advanced applications, and data centers can be pervasively distributed down to network access points. Networks, applications and clouds control layers can so leverage on advanced decision-making solutions to target full automation in Internet and next-generation service delivery, with unprecedented awareness on changing user and network states. Topics of interest include (but are not limited to):

- 5G architecture: protocols, scheduling, slicing, resource allocation
- Blockchain applications to network/cloud control and Internet registries
- Centralized-RAN and Cloud-RAN architectures
- Cloud networking
- Content-based networking: caching, naming, distribution, load balancing, resiliency
- Converged networks and applications
- Free space optical (FSO) networks and Visible light communication (VLC)
- Future Internet and next-generation networking architectures
- Heterogeneous multi-layer and multi-domain wireless-wireline internetworking

- High speed and parallel processing architectures for next generation routers and switches
- Indoor localization and navigation
- Internet economics, pricing, accounting, and growth modelling
- Internet of Things (IoT), M2M, D2D, MTC
- Internet survivability and network resilience strategies
- Mobile and multi-access cloud/edge networking
- Mobile security: device, application, and data
- Network and service virtualization
- Network artificial intelligence applications
- Network data analytics
- Network Functions Virtualization: placement, chaining, security, availability
- Next-generation access networks
- Next-generation anomaly, intrusion, and attack detection/prevention
- Next-generation flow management: resource sharing, congestion control
- Next-generation Internet applications and services, including interactive media, voice and video, games, and immersive applications
- Next-generation IP multimedia subsystem: architecture and design
- Next-generation network management and control
- Overlay and peer-to-peer (P2P) networking
- Packet classification and forwarding mechanisms at ultra-high link rates (terabits)
- Quality of Service (QoS) and Quality of Experience (QoE) in next-generation networks
- Software Defined Networking (SDN)
- Software Defined Radio (SDR) and Cognitive Radio networks
- Traffic measurement, analysis, modelling, visualization, and engineering
- Vehicular networks

Submission Guidelines

The IEEE ICC 2020 website (icc2020.ieee-icc.org) provides full instructions on manuscript format and how to submit a manuscript. You will select the desired symposium/track when submitting your manuscript.