Call for Papers for
Next-Generation Networking Symposium

Scope and Motivation:

Modern Internet networking infrastructures embody a wide range of technologies-wireless and wired-and support a diverse spectrum of user services. However, as overall demands continue to grow, there is a continual need to develop improved "next-generation" architecture designs and services. In particular, some of the key challenges relate to improved network efficiencies and scalabilities, multi-technology integration, and the design of new value-added services. Furthermore, the increasing prevalence of wireless Internet technologies is giving rise to a host of related issues such as scalability, mobility management, and content distribution.

The Symposium on Next-Generation Networking will address some of these critical challenges and focus areas. The goal of the symposium is to uncover some of the important trends and evolutions in next-generation Internet architectures and services. The symposium encourages the submission of theoretical as well as practical and/or experimental studies in order to present a broad summary of the latest work in the area.

Topics of Interest

The Next Generation Networking Symposium seeks original contributions in, but not limited to, the following topical areas:

- Internet architecture and design
- Switch and router architectures, performance, control, buffer management, packet scheduling
- High speed packet forwarding, packet classification
- Traffic identification and application-oriented networks
- Greening Networks and green computing
- Data centers and cloud computing
- Packet processor and traffic manager chip design
- Network and service survivability, network resilience
- Next-generation access networks
- Internet signalling and service enabling protocols, including SIP, NSIS, HTTP, RTSP/RTP, etc
- Network virtualization, virtual private networks (VPN), and services
- Network Federation
- Mobile/wireless Internet and services, mobility management/addressing
- Converged networks and applications, NGN telecom networks
- Multi-layer and multi-domain networks
- Wireless-wireline internetworking, optical-wireless integration
- Internet applications including interactive media, voice, video, gaming, immersion
- Overlay and peer-to-peer networking and applications
- Service pricing model, Internet economics, accounting/billing, growth modelling
- Content-based networking, caching, distribution, load balancing, resiliency/redundancy
- Wireless content distribution, self-organization
- Traffic engineering, flow control, resource management, congestion control
- Routing: unicast, multicast, anycast, etc (wireless, wireline)
- Multihoming, network planning and optimization
- VoIP protocols and services, packet video
- Network management methodologies and control plane design
- Mapping of QoE to QoS
- Mechanisms for self-organisation and autonomous networking
- Traffic measurement, management, analysis, modelling, and visualization
- Emerging and future Internet technologies