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Special Issue on the Quality of Experience issues in Multimedia Provision

Currently, the success of providing novel multimedia services over wired/wireless networks depends on how good the quality of the service is and whether it meets an end user's expectations. Thus, it is critical for equipment manufacturers, network operators and service providers to be able to assess, predict and possibly control the end-to-end perceptual multimedia (e.g., voice and video) quality for commercial and technical reasons.

The Quality of Service (QoS) perceived as user satisfaction has received through past years some effort from the research community, introducing the concept of the Quality of Experience (QoE). The evaluation of the QoE will provide an end user with a range of potential choices, covering the possibilities of low, medium, or high quality levels. This QoE evaluation will also give service providers and network operators the capability to minimize the storage and network resources by allocating only the ones that are necessary to maintain a specific level of user satisfaction.

This special issue will focus on novel accurate, efficient and robust QoE models for multimedia services, novel QoE-driven cross-layer architectures, including performance evaluation, traffic management, cross-layer solutions and Quality of Service in Next Generation Network (NGN). Topics of primary interest include, but not limited to, the following issues:

- Quality of Service, (QoS) Quality of Experience (QoE) and Quality of Perception (QoP) management
- Quality-oriented multimedia content delivery architectures
- End-user quality assessment of streamed multimedia
- PQoS-driven cross-layer architectures
- Adaptive solutions for unicasting, multicasting and broadcasting
- Video quality assessment and prediction
- Quality of service prediction and control for VoIP
- Quality of service adaptation and control for multimedia over wireless and mobile networks
- Content awareness for quality of service control
- QoE aware packet scheduling
- PQoS-driven network optimization algorithms
- Call admissions control and congestion control
- Quality of Service in NGN
- QoE/QoS issues in wireless networks (e.g. IEEE 802.11x, 802.16, 3G/UMTS, etc.)

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