



The Third International Conference on *Quality of Service in Heterogeneous Wired/ Wireless Networks*

*University of Waterloo
Waterloo, Ontario, Canada
August 7 – 9, 2006*

*Sponsored by Create-Net and ICST
In-cooperation with ACM SIGMOBILE*

<http://www.qshine.org>

Call For Papers

1 — Overview

Recent technological developments in broadband peer-to-peer and overlay networks, wireless and mobile networks, and grid computing have led to a wide variety of new challenging problems. These include the provisioning of Quality of Service (QoS), survivability, resilience and scalability in a wide range of emerging applications — such as large-scale multimedia systems — across both wired and wireless networks. The Third International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine 2006) focuses on all aspects of these challenges, including the QoS provisioning, performance optimization, cross-layer design, resilience, scalability and survivability of distributed applications in heterogeneous networks. It will serve as a forum for researchers from academia and industry to present the latest research results on QoS issues for both wired and wireless networks, with the hope to develop viable cross-layer design methodologies. The conference will feature prominent invited speakers as well as papers by top researchers in the field.

2 — Scope

Papers addressing performance optimization and Quality of Service support, ranging from the link layer to the application layer, over wired and wireless networks, are solicited. Authors are encouraged to submit theoretical and/or experimental results of significance. The scope of the conference includes, but is not limited to:

- Cross-layer protocol design in wireless networks
- Quality of Service provisioning in wireless access networks
- Design, implementation or architectures related to QoS-enabled wireless networks
- Energy-aware protocols and algorithms in wireless networks
- QoS in WLAN, WPAN, WMAN and WiMAX (IEEE 802.11/15/16/20)
- QoS in wireless sensor and ad hoc networks
- QoS in cellular and satellite networks
- QoS support across heterogeneous wired and wireless subnetworks
- MAC protocols with QoS support
- Scheduling, resource management, queue management, and admission control
- QoS and survivability in mobile environments
- Game-theoretic aspects in wired, peer-to-peer, overlay, and wireless networks
- Incentive engineering in wired, peer-to-peer, overlay, and wireless networks
- QoS routing in wired, peer-to-peer, overlay, and wireless networks
- Traffic analysis, traffic engineering, and traffic shaping in heterogeneous environments
- Cross-layer performance optimization for energy, network lifetime, and capacity
- Topology control for QoS support in wireless networks
- QoS middleware in overlay and wireless networks
- QoS-aware service composition in overlay and wireless networks
- Security protocols and algorithms in wired, overlay and wireless networks
- Pricing, billing, and resource allocation in wired, overlay and wireless networks
- QoS adaptation, modeling and measurements
- Performance optimization in peer-to-peer and overlay networks
- Scalability of large-scale overlay and wireless networks
- Resilience of overlay and wireless protocols

Accepted papers will be published in the conference proceedings. Papers of particular merit will be selected for consideration of fast track publication in a **special issue for ACM/Springer Wireless Networks (WINET)** (approved), and a special section in **IEEE Transactions on Vehicular Technology** (pending approval).

3 — Paper Submissions

QShine 2006 invites submission of manuscripts that present original material and that have not been previously published or under review by another conference or journal. Any previous or simultaneous publication of related material should be explicitly noted in the submission. Submissions should be full-length papers that are no longer than 10 pages including all figures and references, following the IEEE Transactions LaTeX template, *i.e.*, single-spaced double-column pages with font sizes of 12 or larger. A separate abstract of no longer than 200 words should be submitted as well. Submissions will be judged by their originality, significance, interest, clarity, relevance, and correctness. All papers should be electronically submitted in Adobe PDF format. Submission instructions will be available at: <http://www.qshine.org/submission.html>

4 — Best Paper Award

An award will be presented during the conference to the **Best Paper** of the conference, selected by the Technical Program Committee.

5 — Keynote Speakers

We are delighted to announce **three** world-renowned and distinguished scholars as keynote speakers of QShine 2006:

- **Nicholas F. Maxemchuk**, Professor, Department of Electrical Engineering, Columbia University
- **Mischa Schwartz**, Charles Batchelor Professor Emeritus of Electrical Engineering, Columbia University
- **Kang Shin**, Kevin and Nancy O'Connor Professor of Computer Science, Department of Electrical Engineering and Computer Science, University of Michigan

6 — Important Dates

Paper submission deadline (firm): **March 15, 2006, 11:59pm PST**

Notification of acceptance: **May 8, 2006**

Camera-ready due: **May 28, 2006**

Conference: **August 7-9, 2006**

7 — Organizing Committee

General Chair:

Jon Mark, Distinguished Professor Emeritus, Department of Electrical and Computer Engineering, University of Waterloo, Canada

General Vice Chair:

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