

# IFIP TC6 Working Group 6.3

## Performance of Communication Systems

**Status Report No. 2 - 2006**  
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Sept 29-30, 2006, Paris

**Author: Ioannis Stavrakakis, WG6.3 Chair**

IFIP WG6.3 is sponsoring 5 conferences and workshops in 2006: WONS'06, WiOpt'06, Networking'06, Eunice'06, WAC'06 (part of Autonomic Networking).

The flagship conference is Networking in cooperation with WG 6.2 and 6.8.

### **1 - Report on Past Conferences and Events (6/2005 – 9/2006):**

***WAC2006 : The 3rd IFIP TC6 International Workshop on Autonomic Communication, Sept. 25-29, 2006, Paris, France.***

<http://www.autonomic-communication.org/wac/>

**Sponsors:** IFIP WG6.3, IFIP WG6.6

**General Chair:** D. Gaïti (University of Troyes, FR), G. Pujolle (UPMC, FR)

**Program Chair:** Simon Dobson, UCD, IR

**Steering Committee:** Mikhail Smirnov, Ioannis Stavrakakis, Raouf Boutaba, Simon Dobson

**Workshop Topics:**

Theoretical foundations of autonomic network control; Designing evolvable next generation networks; Self-organisation for NGN; Autonomic Communications testbeds; Modelling and analysis of Autonomic Communication systems; Generic network-level service composition; Context handling within Autonomic Communications; Applied Autonomic Communication systems; Self-organised communications; Context and/or Autonomic Ontologies; Quality of Context Management

***EUNICE 2006: 12<sup>th</sup> Open European Summer School Summer School and IFIP Workshop, Stuttgart, Germany, September 18 - 20, 2006, University of Stuttgart, Germany***

<http://www.ikr.uni-stuttgart.de/eunice2006>

**TPC Chair:** Prof. Paul Kühn, University of Stuttgart, Germany

**Purpose:** The EUNICE network (<http://www.eunice-forum.org/>) has been created to foster the mobility of students, faculty members and research scientists working in the field of information and communication technologies and to promote educational and research cooperation between its member institutions. The main goal of the EUNICE Summer School is to give researchers and particularly Ph.D. students the opportunity to present their work at an international level. In addition to the research paper presentations, a number of tutorials or invited talks, presented by experts in the field, will be given.

**Call for Contributions:** The exponential growth in the mobile communication market in the past years has led to a variety of new and envisioned applications. One example are context-aware applications for mobile networks, which impose many challenges for network and service architectures with a wide range of new requirements. On the one hand research has to

build up a sound understanding of these applications and their supporting service architectures. On the other hand, the network infrastructure needs to be able to provide the necessary quality of service for the envisioned applications. The EUNICE summer school is open to researchers from any institution, and we cordially invite all researchers to contribute with original submissions. Topics of interest are, but are not limited to:

Services and Applications

Location and context-based services, Mobile services, Nomadic communications,  
Ubiquitous computing, Autonomic computing, Service architectures in future networks  
Architectures and Protocols

System architectures for context-based systems, Core and edge node architectures, 3G and beyond 3G architectures, Security and privacy

Networks and Infrastructures

Photonic networks, Radio access networks, Ad-hoc and sensor networks,

Cross-layer interactions and optimizations, Network resilience, Measurements and Trials

Theoretical and Formal Methods

Mobility models, Performance and quality of service, Protocol engineering,

Data fusion and interference methods

**Regular Contributions:** Authors are invited to submit original papers, which will be reviewed for presentation and publication in the proceedings of the Summer School. Papers must be written in English and must not exceed eight single-spaced A4 pages.

**Tutorials:** Each EUNICE member institution is cordially invited to present tutorials (approx. 75 minutes) at the Summer School. Prospective tutorial speakers are kindly asked to submit proposals covering one or more of the technical areas indicated above. The tutorial proposals should include a brief outline, a short resume, and the speaker's full postal address, phone and fax numbers, homepage and e-mail-address.

**Sponsors:** IFIP WG6.3, WG6.4, WG6.6, WG6.9

## **2 - Plans for future conferences and events:**

***WONS'07: Fourth Annual Working Conference on Wireless On-demand Network Systems, January 24-26, 2007, Obergurgl, Austria.***

<http://www.dps.uibk.ac.at/~sven/wons/index.html>

**Sponsor:** IFIP WG6.3

This event follows the three successful previous editions combining scientific quality and wonderful locations, WONS 2006, Les Ménuires, France, WONS 2005, St. Moritz, Switzerland, WONS 2004, Madonna di Campiglio, Italy.

Obergurgl University centre is part of the University of Innsbruck and is located at the end of the Oetz valley, in the Austrian alps. The station is at an altitude of 1940m surrounded by numerous 3000m peaks. The station has 110km of downhill runs, 1800-3040m, and 23 ski lifts. Additionally, a glacial ski arena is near by.

The conference will be scheduled on the basis of presentations in the morning and late afternoon, leaving the afternoons free for discussions between participants and social activities.

### **Scope of the conference**

The world of wireless networks in the last few years has definitely turned its attention and focus more on "lightweight" networks, cheap and easily deployed, rather than the traditional, infrastructured cellular networks. The aim is providing ubiquitous connectivity and network centric services, with the important attribute of service provisioning "on demand" with minimal planning and management effort as well as with little dependency on existing network infrastructures. Even in the cellular network world, providers often point out their capacity to

offer ad-hoc services that are tailored for a specific event or community, e.g. gaming on cellular networks. On the other extreme, peer2peer systems can provide innovative communication services to a community on ad-hoc networks, requiring almost no infrastructure.

Ambient intelligence and ubiquitous computing are also part of this broad vision of "on demand" networking, providing services to users when they need it, albeit the final user might not even be aware if it!

WONS is now at its fourth edition, and the community interest is still on the rise, providing a premier forum for high quality papers presentation and lively discussion.

Topics related to wireless ad hoc networks and sensor networks comprise, but are not limited to:

Architecture and Design

Analysis through simulation and experimental evaluation

Modeling

Internet integration

Social and economic aspects

Pervasive / ubiquitous computing

Localization and mobility management

Security

Energy-efficient protocols and power management

Applications and Service Support

Data dissemination and peer2peer systems

Manuscript submissions

Submitted papers must not have been published elsewhere nor currently be under review by another conference or journal.

Authors are invited to submit full papers (8 pages) and short papers (4 pages). Short papers should address future research directions, ongoing work, and visionary, innovative ideas.

All papers should be submitted electronically as PDF, according to the IEEE publisher format.

The papers will be published in the conference proceedings published by the IEEE.

### Important Dates

Paper registration	September 1, 2006
Paper due	September 7, 2006
Acceptance notification	October 30, 2006
Camera ready due	November 20, 2006 (tentative)

### Organization:

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Fabio Ricciato	ftw. Telecommunications Research Center Vienna, Austria
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#### WONS Steering

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***WiOpt'07: 5th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks, April 16-20, Limassol, Cyprus***

<http://www.wiopt.org/>

**Sponsor:** IFIP WG6.3

#### **Scope of the Symposium**

The design of wireless networks offers challenges not present in fixed networks: both the offered traffic and the network capacity depend on the mobility of the nodes. The designs should not only be functioning correctly, they are also expected to optimize the performance with respect to many criteria, such as energy efficiency, quality of service, and capacity utilization. This symposium intends to bring together researchers and practitioners working on optimization of wireless network

design and operations. It welcomes different perspectives, including performance analysis, protocol design, wireless communication, and optimization theory. Contributions to this conference should improve the state-of-the-art in design, analysis, dimensioning and operations of wireless network by providing insights into theoretical aspects as well as providing practical methods and tools. All forms of wireless networks are of interest: from cellular wide-area and local-area networks to dense and sparse ad-hoc networks; domain specific vehicular, public-transport and personal-area networks as well as application-specific sensor networks.

### Adjunct Workshops

Several one-day workshops will accompany the main WiOpt Symposium:

- [WiNMee/WiTMemo 2007](#) : International Workshop On Wireless Network Measurement
- [RAWNET 2007](#) : Resource Allocation in Wireless Networks
- [SPASWIN 2007](#): Spatial Stochastic Models for Wireless Networks
- [CONCOM 2007](#) : Control over Communication Channels
- [WNC<sup>3</sup> 2007](#) : Wireless Networks: Communication, Cooperation and Competition

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<b>Michele Zorzi</b>	Universita degli Studi di Padova	<b>Gil Zussman</b>	MIT

### Important Dates

Submission deadline: **October 6, 2006**

Notification of acceptance: **December 18, 2007**

Camera-ready copy: **January 19, 2007**

***IFIP Networking 2007, The Sixth International Conference on Networking, May 14-18, 2007, Georgia Tech Hotel, Atlanta, Georgia, USA***

<http://www.ifip-networking07.org/> <http://www.ifip-networking.org/index.htm>



# Networking 2007

May 14-18, 2007  
 Georgia Tech Hotel  
 Atlanta, Georgia USA  
<http://www.ifip-networking.org/>

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## Call for Papers

Networking 2007 is the sixth event in a series of International Conferences on Networking, sponsored by the IFIP Technical Committee on Communication Systems (TC 6). The main objectives of Networking 2007 are to bring together active and proficient members of the networking community, from both academia and industry, to discuss recent advances in this broad and fast-evolving field of telecommunications, and to highlight key-issues, identify trends and refresh vision in the field of telecommunications.

The conference objectives will be pursued through technical sessions, keynote talks, and tutorials offered by invited experts, as well as panel discussions on hot topics. The technical sessions will be structured into three tracks:

### (1) Ad Hoc and Sensor Networks (2) Wireless Networks (3) Next Generation Internet

Authors are encouraged to submit full papers describing original, previously unpublished, complete research, not currently under review by another conference or journal, addressing state-of-the-art research and development in all areas of computer networking. Topics include, but are not limited to:

Ad Hoc & Sensor Networks	Wireless Networks	Next Generation Internet
Authentication & security	Broadband wireless access	All-IP networking
Algorithms & protocols	Cellular networks (2G, 2.5G, 3G & Beyond)	Congestion control
Admission control	Cross-layer design & optimization	Evolution of IP network architecture
Data dissemination	Location management	Multilayer design & optimization
Environment monitoring	Handoff	MPLS & GMPLS
Energy & resource consumption	Ubiquitous networks	Multicasting
Fault tolerance & error recovery	Hybrid networks	Multimedia protocols
Interconnection of ad hoc / wired networks	Interworking of 2G,3G, 4G Mobile IP networks	Network management systems
Localization	Mobile networks architecture & protocols	Network measurements & testbeds
Location services	Mobility models	Network modeling & simulation
MAC protocols	Multimedia over wireless	Peer-to-peer networks
Mesh networks	Overlay networks	Pricing, billing & economic models
Mobility	Quality of Service	Quality of Service
Modeling & performance evaluation	Standards & protocols	Real-time voice/video over IP networks
Network reconfiguration	Wireless local & personal area networks	Resource allocation
Power management	Wireless multimedia systems	Routing & switching
Quality of Service	Wireless protocols	Scheduling & queue management
Resource allocation	Wireless authentication & security	Traffic engineering
Routing	Wireless network modeling, algorithms, & simulation	Traffic management
Scheduling	Wireless network reliability	Traffic modeling
Self-organization	Wireless LAN/MAN/WAN interoperability	Web architecture & protocols
Time synchronization		
Traffic shaping		

### IMPORTANT DATES

Full Paper Due: **October 30, 2006 (11:59 EDT)**  
 Acceptance Notification: **February 1, 2007**  
 Final Manuscript Due: **February 21, 2007**

### SUBMISSION

Authors are invited to submit full papers of up to 6 pages, double-column format, with minimum 10-point font, 2.5cm margins at the top, bottom, and on each side. Papers must be submitted electronically via EDAS. Detailed submission instructions are available on the conference website.