

# WINSYS 2006

*International Conference on Wireless Information Networks and Systems*

WINSYS is organized by INSTICC - Institute for Systems and Technologies of Information, Control and Communication and technically co-sponsored by IEEE.

## SCOPE

The purpose of WINSYS 2006, the International Conference on *Wireless Information Networks and Systems*, is to bring together researchers, engineers and practitioners interested on information systems and applications in the context of wireless networks and mobile technologies.

Information systems and information technology are pervasive in the whole communications field, which is quite vast, encompassing a large number of research topics and applications: from practical issues to the more abstract theoretical aspects of communication; from low level protocols to high-level networking and applications; from wireless networking technologies to mobile information systems; many other topics are included in the scope of WINSYS.

Ideas on how to analyze and approach problems by combining information systems and communication technologies, either in the scope of R&D projects, engineering or business applications, are welcome. Papers describing new methods or technologies, advanced prototypes, systems, tools and techniques and general survey papers indicating future directions are also encouraged. Papers describing original work are invited in any of the areas listed below. Accepted papers, presented at the conference by one of the authors, will be published in the Proceedings of WINSYS, with an ISBN. Acceptance will be based on quality, relevance and originality. Both full research reports and work-in-progress reports are welcome. There will be both oral and poster sessions.

The best papers will be selected to appear either in an international journal or in a book to be published by Springer.

Special sessions, case-studies and tutorials dedicated to technical/scientific topics related to the main conference are also envisaged: researchers interested in organizing a special session, or companies interested in presenting their products/methodologies or researchers interested in holding a tutorial are invited to contact the conference secretariat. Additional information can be found at <http://www.winsys.org>.

## CONFERENCE AREAS

Each of these topic areas is expanded below but the sub-topics list is not exhaustive. Papers may address one or more of the listed sub-topics, although authors should not feel limited by them. Unlisted but related sub-topics are also acceptable, provided they fit in one of the following main topic areas:

■ **Wireless Information Networks**

■ **Wireless Networking Technologies**

■ **Mobile Software and Services**

■ **Wireless Information Policy, Risk Assessment and Management**

### **Area 1: Wireless Information Networks**

- Wireless Local Loop: LMDS, MMDS
- GPRS, UMTS and Beyond 3G (B3G) Systems
- 4G Systems
- Spread-spectrum and CDMA Systems
- Broadband Systems
- Ultra Wide Band Systems (UWB)
- Home area networks
- Mobile Ad-hoc and Sensor Networks
- Body and Personal Area Networks
- Mobile Network Protocols and Packet Services
- Adaptive Wireless Network Protocols
- Network Management and Control
- Mobile IP
- Network Design, Optimisation, and Management
- Radio Coverage and Planning
- Performance Analysis of Wireless Networks
- QoS in Wireless Networks

### **Area 2: Wireless Networking Technologies**

- Wireless Propagation Channel Analysis and Modelling
- Antenna Technologies
- MIMO Systems and Techniques
- Multi-carrier and CDMA, OFDM, Spread-spectrum and UWB
- Channel Coding, Modulation and Multi-user Detection
- Joint compression, Coding and Modulation for Wireless Multimedia
- Adaptive Modulation and Coding for Wireless Channels
- Detection, Decoding and Diversity Techniques
- Turbo Codes and Iterative Decoding
- Radio Resource Management
- Implementation Architectures
- Emerging Technologies
- Experiments & Trials

### **Area 3 : Mobile Software and Services**

- Mobile Services (WASP, ASP, MSP)
- Mobile Multimedia Applications
- Mobile Agents Support for Data Networks
- Security Aspects of Mobile Software
- Application Development Environment & Tools
- JAVA based development
- Software for Wireless Location Systems
- Software for Communications Development and Simulation
- Telecommunication Software Systems, Tools and Languages
- Parallel and Distributed Computing
- Grid and Cluster-based Computing
- Pervasive Computing
- Peer-to-Peer Computing
- Biometrics and Mobile Computing
- Automotive Industry
- Wearable Computers
- Web services
- Personal Communication Systems
- Distributed Processing Techniques and Applications

## Area 4 : Wireless Information Policy, Risk Assessment and Management

- Mobile Technology Standards
- Information Security Policy for Wireless Networks
- Spectrum Policies and Coexistence
- User Policies and Procedures
- Wireless Location Privacy Law and Policies
- Wireless Application Areas
- Policies for Writing Mobile Code
- Mobile Access Rights Management
- Risk management and assessment in wireless environments
- Information Security Policy for Wireless Networks
- Wired to Wireless transition issues
- Monitoring System Vulnerabilities
- Outsourcing Risk Management

## KEYNOTE SPEAKERS

- **Les Barclay**, Barclay Associates Ltd, U.K

## SPECIAL SESSIONS

### Special Session I: Wireless Sensor Networks

#### Organizer:

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#### Special Session Topics:

4G Systems  
Mobile Ad-hoc and Sensor Networks  
Body and Personal Area Networks  
Mobile Network Protocols and Packet Services  
Adaptive Wireless Network Protocols  
Network Management and Control  
Mobile IP  
Network Design, Optimisation, and Management  
Radio Coverage and Planning  
Performance Analysis of Wireless Networks  
QoS in Wireless Networks  
Wireless Propagation Channel Analysis and Modelling  
Radio Resource Management  
Implementation Architectures  
Emerging Technologies  
Software for Wireless Location Systems  
Pervasive Computing  
Personal Communication Systems

## Relevance to WINSYS 2006

The field of sensor networking research has been attracting tremendous interest particularly since it has been demonstrated that concepts for multi-hop self-organizing networks with energy-efficiency as a primary constraint are feasible, and that high levels of the miniaturization of network nodes, under the guiding vision of smart dust, are just a matter of time.

In the USA, which is home to many of the recent important advances in this research field, including progress in the design of novel protocols, operating systems, embedded software and innovative hardware, sensor networking enabling technologies, developed within the top Universities, are realising their exploitation potential through spin-off companies. This has opened the field for many new applications.

Indeed, the potential for innovative user-centric applications is one of the most exciting aspects of sensor networking, which creates a high motivation for working on the variety of challenging research topics. Wireless Sensor Networks are a critical step towards the vision of ubiquitous intelligent sensing environments and very necessary, taking into account the benefits that sensor networks have to offer to European society.

The session will focus its research toward the solution of specific theoretical and technological problems that will enable the building of sensor network applications that can significantly affect European society.

## TUTORIALS

WINSYS 2006 may include one or more tutorials, depending on the submitted proposals, to be lectured the day before the conference opening. If you would like to propose a tutorial for WINSYS 2006, please contact the secretariat as soon as possible. Proposals should specify the topic and scope of the tutorial, the background knowledge expected of the participants, and a short CV of the instructor(s).

## SUBMISSION OF PAPERS

Authors should submit a complete paper in English of up to 8 A4 pages, using the submission procedure indicated below. The program committee will review all papers and the contact author of each paper will be notified of the result, by email. Each paper should clearly indicate the nature of its technical/scientific contribution, and the problems, domains or environments to which it is applicable. Authors must also indicate the conference track to which the paper is submitted. The paper must be carefully checked for correct grammar and spelling.

### Paper submission procedure

1. A "blind" paper evaluation method will be used. To facilitate that, the authors are kindly requested to produce and provide the full paper, WITHOUT any reference to the authors. The manuscript must contain, in its first page, the paper title, an abstract and a list of keywords but NO NAMES OR CONTACT DETAILS WHATSOEVER are to be included in any part of this file.

2. The contact author will then use the WINSYS web-based submission facility available at the conference web site, <http://www.winsys.org/> to enter the contact information of all paper authors plus the file indicated in point 1, above. The facility will automatically send a submission acknowledgement, by email, to the author indicated as "contact author". Please contact the secretariat if no acknowledgement is received.

If the author is unable to use the web-based procedure then he/she can send the paper by e-mail to the secretariat attaching an additional file containing: the title, author(s),

affiliation(s), contact details, a list of keywords and an abstract. Authors must also indicate the conference area (including the topics), to which the paper is submitted.

The camera-ready format will be enforced only for accepted papers, but authors are encouraged to use it also for paper submissions, in order to reduce extra work later. Two templates are provided at the conference web site: one for Latex and another for MS Word. Due to space limitations in the Proceedings, the camera-ready version will be limited to 8 (eight) pages for full papers, 6 (six) for short papers (progress reports) and 4 (four) for poster presentations. If absolutely needed, the number of pages may be increased up to a maximum of 12 (long presentations), 8 (short presentations) and 6 (poster presentations). However, for each page in excess of the maximum allowed, the author will have to pay an additional fee.

## PUBLICATIONS

WINSYS 2006 papers will be indexed by DBLP.

All accepted papers will be published in the conference proceedings, under an ISBN reference, in paper and in CD-ROM support.

A book including a selection of the best conference papers will be edited and published by Springer.

The International Journal of Communication Systems will also publish a selection of ICETE-WINSYS 2006 papers.

## IMPORTANT DEADLINES

Full Paper Submission: **deadline expired**

Author Notification: 24th May 2006

Final Paper Submission and Registration: 8th June 2006

Conference Date: 7-10 August 2006

## SECRETARIAT

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