

# CALL FOR PAPERS (WiPH2009)

2009 International Workshop on Wireless Pervasive Healthcare (WiPH 2009)

(<http://www.wiph-workshop.org/>)

to be held in conjunction with 3rd International Conference on Pervasive Computing Technologies for Healthcare 2009

(<http://www.pervasivehealth.org/cfp.shtml>)

## **Aim of the workshop**

Wireless access for pervasive healthcare is an emerging cross-disciplinary subject, focusing on the research and developments of pervasive and ubiquitous wireless technologies in order to improve the quality of healthcare and wellness. With the recent advances in hardware design and wireless communications, the evolution of new generations of embedded wireless devices, which facilitates reliable, comprehensive, and high-standard healthcare, has attracted intensive attention from both industries and academic institutes. Particularly, developments in wireless infrastructure, such as body-area networks or pervasive health-monitoring system, have proved beneficial to deliver telemedicine services regardless of a patient's physical location. However, there still exist many challenges to overcome before the real marketing stage due to requirements for reliable signal propagation characteristics, low network latency, low packet loss, robust data and image transmission, and the great need for safe, secure, and dependable operation. In addition, cost issue is another key concern for worldwide utilization of wireless devices for pervasive healthcare.

The aim of the workshop is to bring together both the industry and academia to present and discuss the problems, challenges, directions, and state-of-art in the fields of wireless access for pervasive healthcare. The workshop will try to build a bridge between the industry and academic research so that future collaborations between two sectors can be identified. In addition, we welcome demos of state-of-the-art products.

## **Topics of interests (not limited to)**

Topics of interest relating to wireless access techniques for healthcare are (but not limited to):

- New network architectures
- RF techniques
- Propagation models, such as on-body/in-body propagation channel models
- Transmission technologies and baseband signal processing
- Health sensing techniques
- Health imaging and localization by large bandwidth communications, for example UWB
- Mobile, wearable and implantable sensor integration
- Ambient and home based technologies
- Sensors and mobile devices for continuous patient monitoring
- Wireless sensor networks for hospitals, operating rooms, elderly monitoring, and other applications
- WSN network performance modeling: methodology and evaluation
- Cross-layer solutions to render WSN performance power-aware
- WSNs application design aspects: patient monitoring
- Enabling technologies for future medical devices and systems

- Embedded, real-time, networked system infrastructures
- Robust, verifiable, fault-tolerant networking protocols
- Real-time data acquisition, processing and analysis
- QoS and resource management
- Cognitive radio and dynamic spectrum sharing techniques
- Distributed control of wearable and implantable medical devices
- Security and privacy issues
- Testbeds, prototypes, and other novel applications
- Electromagnetic interference by wireless devices on medical equipment
- Interoperability and standardization

### **Submission Guidelines**

WiPH2009 accepts only novel, previously unpublished papers in the area of wireless technologies for healthcare. Submissions can be a 2-page extended abstract including results. Submission of a paper should be regarded as an undertaking that, should the paper be accepted, at least one of the authors will register for the conference and present the work. All accepted submissions will be published in IEEE Xplore Digital Library.

Detailed instructions to authors can be found in:  
<http://www.pervasivehealth.org/submission.shtml>

### **Important Dates**

Paper submission: January 31, 2009  
 Notification to Authors: February 20, 2009  
 Camera Ready: February 27, 2009  
 Workshop dates: March 31, 2009

### **Local organizing committee**

Linyang Song, Philips Research, UK  
 Rob Davies, Philips Research, UK  
 David Walker, Philips Research, UK

### **Program committee**

Thomas Falck, Philips Research, Netherlands  
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