



## Call for Papers

### 4<sup>th</sup> International Conference On Smart homes and health Telematics ICOST2006 - 26-28 June, 2006 - Belfast, Northern Ireland, UK

*Organiser*  
University of Ulster

#### Chair:

Chris Nugent  
Faculty of Engineering  
University of Ulster (UK)

After three successful editions held in France (2003), Singapore (2004), and Canada (2005), ICOST2006 aims to continue to develop an active research community dedicated to explore how Smart Homes and Health Telematics can foster independent living and offer an enhanced quality of life for ageing and disabled people.

#### Co-Chairs:

Norman Black  
University of Ulster (UK)

A Smart Home can be considered to be an augmented environment with the ability to consolidate embedded computers, information appliances, micro/nano systems, and multi-modal sensors to offer people unprecedented levels of access to information and assistance from information and communication technology. Health Telematics makes the most of networks and telecommunications to provide, within the home environment, health services, expertise and information and hence radically transform the way health-related services are conceived and delivered. We believe that in the future ageing and disabled people will use smart assistive technology to perform daily living activities, socialize, and enjoy entertainment and leisure activities.

#### Scientific Committee:

Z. Zenn Bien, S. Korea (Chair)  
Borhanuddin Mohd Ali, Malaysia  
Nadjib Badache, Algeria  
Diane Cook, USA  
Sajal Das, USA  
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Jaime Lopez Krahe, France  
Jay Lundell, USA  
Mounir Mokhtari, France  
Jose Piquer, Chile  
Toshiyo Tamura, Japan  
Daqing Zhang, Singapore  
Xingshe Zhou, China

Nowadays networks, microprocessors, memory chips, smart sensors and actuators are faster, cheaper, more intelligent and smaller than ever. Current advances in such enabling technologies coupled with evolving care paradigms allow us to foresee novel applications and services for improving the quality of life for ageing and disabled people both inside and outside of their homes. The conference will present the latest approaches and technical solutions in the area of Smart Homes, Health Telematics, and emerging enabling technologies. Technical topics of interest include, but are not limited to:

- o Intelligent Environments / Smart Homes
- o Medical Data Collection and Processing
- o Human-Machine Interface / Ambient Intelligence
- o Modeling of Physical and Conceptual Information in Intelligent Environments
- o Vision / Hearing / Cognitive Devices
- o Tele-Assistance and Tele-Rehabilitation
- o Personal Robotics and Smart Wheelchairs
- o Context Awareness / Autonomous Computing
- o Home Networks / Residential Gateways
- o Wearable Sensors / Integrated Micro/Nano Systems / Home Health Monitoring
- o Social / Privacy / Security Issues
- o Middleware Support for Smart Home and Health Telematic Services

#### Program Committee:

Bessam Abdulrazak, USA  
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Paolo Fiorini, Italy  
Sergio Guillén, Spain  
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Dave Lewis, Ireland  
Andreas Lymberis, Belgium  
Rozi Mahmud, Malaysia  
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Mike McTear, UK  
Kejian Miao, China  
Alex Mihailidis, Canada  
Cristiano Paggetti, Italy  
Kwang-Hyun Park, S. Korea  
Hélène Pigot, Canada  
Gilles Privat, France  
Geoff West, Australia  
Tatsuya Yamazaki, Japan  
Michael Youngblood, USA  
Zhiwen Yu, China  
Franco Zambonelli, Italy

Each year, ICOST has a specific flavour. ICOST2003 focused on usability. The theme was "Independent living for persons with disabilities and elderly people". The theme for ICOST2004 was "Towards a Human-Friendly Assistive Environment" and for ICOST2005 was "From Smart Homes to Smart Care". This year the conference has the theme "Smart Homes and Beyond". This focuses on promoting personal autonomy and extending the quality of life. Papers or special sessions addressing the following topics are especially encouraged:

- o Inclusive smart home services
- o Smart services inside and outside of the home
- o Situation awareness
- o Location-based services
- o Mobility of service delivery

**Submission of Papers:** There will be a combination of presentations including scientific papers, posters, exhibits and technology demonstrations. Prospective authors are invited, in the first instance, to submit papers for oral presentation in any of the areas of interest for this conference as well as proposals for Special Sessions. The initial submission for evaluation should be in the form of a 4-8 page paper outline. Authors are strongly recommended to submit the full 8-page English language version. IOS Press will publish the proceedings as a volume of the *Assistive Technology Research Series* therefore their paper publication format ([www.iospress.nl/authco/instruction\\_crc.html](http://www.iospress.nl/authco/instruction_crc.html)) should be used for submission.

#### Important Dates:

Papers submission: 1 February, 2006  
Author notification: 3 March, 2006  
Camera-ready copy: 3 April, 2006

**Conference Web Page:** <http://www.icost2006.ulster.ac.uk/>

**Conference Organisation Email:** [info@icost2006.ulster.ac.uk](mailto:info@icost2006.ulster.ac.uk)

**Conference Venue:** ICOST2006 will be held at the Culloden Hotel, Belfast, Northern Ireland, UK

#### Local Organising Committee:

Maurice Mulvenna (Chair)