

Personal and Ubiquitous Computing (Springer)

Special Issue on

Assistive Environments for the Disabled and the Senior Citizens

Aims and scope of this special issue

As the diffusion of computing technology into everyday life continues at an exponential rate, the technology is becoming increasingly embedded in artifacts and environments trying to address an important social and healthcare issue: as the world's population ages, there is growing need for technologies to assist with the in-home care of the elderly and people with Alzheimer's, Parkinson's and other disabilities or traumas. People's living environments are particularly important in an increasingly crowded and complex world in which inclusiveness and connectivity with the rest of the world is critical. Assistive environments addresses the fact that, as people grow older, they increasingly rely on technology to be able to live in their homes. The key area of this special issue is the technology, as it is now increasingly possible to assist people, who have health care needs, in their every day routine by using sensors, databases, personal area networks, ubiquitous connectivity, distributed intelligence and adaptive easy to use interfaces and interactions. It is at this critical moment that we would like to invite researchers working in the area of healthcare and assisted environments for the disabled and the senior citizens to submit their original research findings to this PUC special issue.

Main topics

This special issue will focus on research work on the design, development, evaluation, and use of emerging pervasive technologies for assistive environments. Authors of submissions should carefully explain how the work and results presented contribute to facilitating and promoting the use of pervasive computing for the disabled and the senior citizens. Contributions are solicited in, but not limited to, the following topics:

- Tools, infrastructures, architectures and techniques for designing, implementing and deploying pervasive applications for assistive applications
- Devices, software and hardware to monitor patients, disabled and elderly
- New tools for improved biomedical data analysis and correlation to behavioural patterns (image processing, data mining, machine learning)
- Sensor-enhanced clinical testing of physical condition
- Telehealth monitoring systems and tools and @home monitoring of medication and/or reaction to drugs
- Geographical localization systems for behavioural pattern analysis and evaluation
- Motion capture and human body behaviour systems
- Wearable, ambient and home based health and wellness measurement and monitoring technologies
- Robotics and automation in assistive living systems
- Human Centered Computing and the Senior Citizen
- Usability and HCI interfaces
- Global Healthcare and the Citizen' Standards and interoperability
- Physical therapy technologies and rehabilitation

Only original and unpublished work will be considered. With regard to both the content and formatting style of the submissions, authors should follow the Personal and Ubiquitous Computing manuscript format described in the "Information for Authors" at <http://www.springer.com/computer/hci/journal/779>

There will be one round of reviews and acceptance will be limited to papers needing only moderate revisions. Prospective authors should submit a separate cover letter that includes the complete information of the paper (title, authors, affiliations, corresponding author, contact detail, and summary) and a pdf version of their complete manuscript without authors' names and affiliation to the Guest Editors of the special issue: Ilias Maglogiannis (University of Central Greece), Filia Makedon (University of Texas at Arlington), Margrit Betke (Boston University), and Grammati Pantziou (TEI of Athens) (e-mails: imaglo@ucg.gr; makedon@uta.edu; betke@cs.bu.edu; pantziou@teiath.gr) according to the following timetable:

Submission deadline: September 30, 2011

Deadline for the completion of reviews and selection of papers: December 31, 2011

Deadline for the submission of modified papers (according to reviews): March 31, 2012

Final Decision and minor corrections April 30, 2012

Date for submitting the material to the publisher June 30, 2012

Sources of papers and referees:

Invitation of the best papers from the 3rd and 4th ACM International Conference on "Pervasive Technologies Related to Assistive Environments – PETRA 2010/2011" (<http://www.petrae.org/>) and the publicly announced CFP will be the source for papers.