7th International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI 2013)

5th International Work-conference on Ambient Assisted Living (IWAAL 2013) 6th Latin American Conference on Human Computer Interaction (CLIHC 2013)

Hotel Riu Guanacaste

http://www.riu.com/en/Paises/costa-rica/guanacaste/hotel-riu-guanacaste/index.jsp *Guanacaste, Costa Rica, December 2-6, 2013*http://mami.uclm.es/ucamiiwaal2013/

Selected papers will be published in the following journals:

- **Sensors Journal** (IF = 1,739)
- International Journal of Human-Computer Interaction (IF = 0,949)
- International Journal of Computer systems Science and Engineering (IF = 0,319) (More Journals could be announced)

The conference proceedings will be published in Springer LNCS.

Important dates:

Paper submission: June 1, 2013

Notification of acceptance: August 15, 2013 Camera-ready version: September 15, 2013 Conference dates: December 2-6, 2013

Conference background & goals:

The Ubiquitous Computing (UC) idea envisioned by Weiser in 1991, has recently evolved to a more general paradigm known as Ambient Intelligence (AmI). Ambient Intelligence then represents a new generation of user-centred computing environments aiming to find new ways to obtain a better integration of the information technology in everyday life devices and activities.

AmI environments are integrated by several autonomous computational devices of modern life ranging from consumer electronics to mobile phones. Ideally, people in an AmI environment will not notice these devices, but they will benefit from the services they provide them. Such devices are aware of the people present in those environments by reacting to their gestures, actions and context. Recently the interest in Ambient Intelligence Environments has grown considerably due to new challenges posed by society, demanding highly innovative services such as vehicular ad hoc networks (VANET), Ambient Assisted Living (AAL), e-Health, Internet of Things and Home Automation among others.

The main focus of this edition of the UCAmI Conference will be "Ubiquitous Computing & Ambient Intelligence: Context-Awareness and Context-Driven Interaction".

Ambient Assisted Living (AAL) proposes solutions based on Information and Communication Technologies (ICT) to enhance the quality of life of elderly people. AAL promotes the provision of infrastructures and services for the independent or more autonomous living, via the seamless integration of info-communication technologies within homes and residences, thus increasing their quality of life and autonomy and reducing the need for being institutionalized or aiding it when it happens.

This edition of IWAAL Conference focuses on "Ambient Assisted Living and Active Aging".

<u>CLIHC (Latin American Conference on Human Computer Interaction)</u> aims to bring together people's diversity, culture, geography, history and Latin America perspectives from professionals in the area of Human-Computer Interaction (HCI). This event had its origin in Rio de Janeiro 2003 – Brazil, following editions in Cuernavaca 2005 - Mexico, Rio de Janeiro 2007 – Brazil, Mérida 2009 - Yucatán in Mexico. Porto de Galinhas 2011 - Brazil.

The Latin American and the International HCI communities are invited to exchange ideas, methods, approaches and techniques that aim designing interactive user experiences. In consonance with previous editions, we believe that in the field of HCI, not only we must come to a

technology that can be used and appreciated by as many people as possible, but also to promote intercultural exchange and cooperation between people with different backgrounds and needs.

Topics of interest

Human Interaction in Ambient Intelligence

 Human-Centric Interfaces for AmI environments (multi-modal, touch computing, NFC, 2D codes)

UCAmI

- Context- and Location-aware
 Frameworks and Sensing (context
 modelling, user-adaptability,
 automatic-generation of user
 interfaces, sentient computing,
 knowledge-based approach, affective
 and social interfaces, etc.)
- Virtual Reality and Augmented Reality
- Smart-object based interaction, persuasive computing and Tangible Interactions.
- Ubiquitous and Ambient Displays Environments, Wall Displays, Urban Displays, Multi-screen Environments.
- Detection and Support for collaboration, User Intentions and Activity Recognition, Analysis of Psychological User States
- Digital TV-based interfaces

ICT instrumentation and Middleware support for Smart Environments and Objects

- Mobile Ad Hoc Networks and Wireless Sensor Networks (WSNs)
- RFID and 2-D codes for real-world labelling
- Smart Sensors
- Wearable Computing
- Custom made internet-connected objects
- Semantic Middleware Infrastructure (Semantic Web, OSGi, DLNA, DPWS, Home automation standards)
- Mining techniques to mobile and sensor data
- Contextualized analysis of social and information networks

Adding intelligence for Environment Adaptation

- Knowledge Representation and Management for user and environment modelling and understanding (Ontologies, Semantic Web, Logic, Expert Systems Multiagents)
- Autonomic Computing, Responsive and Proactive Systems and Dynamic

IWAAL

Human-Computer Interaction in AAL environments

- Ubiquitous and Mobile Interfaces
- Multi-modal Interaction
- Virtual and Augmented Reality
- Sensor-based Interfaces
- Agent-based Interfaces
- Robot-based Interfaces
- Computer Vision based systems

Platforms for the delivery of AAL

- Ambient Intelligence for AAL
- Context-Awareness in Assistive Environments
- Situation-Awareness
- Persuasive Computing
- Acivity modelling and recognition
- Behaviour Analysis
- Collaborative Systems for AAL
- Knowledge and Data Management systems
- Middleware Architectures for AAL
- Interoperability and standards
- Security and data management
- Reasoning under uncertainty

Sensing and Monitoring solutions within AAL

- Ubiquitous and pervasive sensing systems
- Wearable technologies
- Wireless sensor networks in AAL
- Telehealth, telecare and telemonitoring
- Activity monitoring and assessment
- Vital Signs monitoring in AAL

Case studies of AAL in Application Environments

- Smart Homes
- Residential Homes
- Living Labs
- Workplace

Key applications domains

Sunnorting long term Chronic diseases

Reconfiguration

- Ontologies for user and environment modelling and understanding
- Learning, Reasoning and Adaptation Techniques over context models.
 Collaborative Smart objects
- Linked Open Data applied to Smart Environments
- Rehabilitation
- Occupational therapy
- Emotional Support
- Self-management
- Healthcare and Social Wellness

Key application domains for Ambient Intelligence

- Internet of Things and Social Web of Things
- Social Robotics
- Intelligent Transport Systems (ITS)

CLIHC

- Accessibility and therapeutic uses of interaction
- Adaptive, adaptable, intelligent user interfaces
- Affective computing
- Augmented reality
- Context-aware interaction
- Effects of aging on interacting with computers
- End user programming and development
- Ergonomics
- HCI and citizenship
- HCI design methods, tools and perspectives
- HCI education
- HCI evaluation methods, tools and perspectives
- HCI impacts on society
- HCI theories and theoretical approaches
- Human-robot interaction

- Integrating HCI and Software Engineering
- Interacting with information visualizations
- Interacting with new devices
- Interaction and information processing
- Interfaces for mobile and ambient systems
- Internationalization and cultural aspects of HCI
- Interaction and entertainment
- Legal issues in HCI
- Multimodal interfaces
- Natural interaction
- Semiotic engineering
- Social interaction
- Speech interfaces
- Tactile interfaces
- Task ad user analysis
- Usable privacy and security tools
- Usability engineering
- Web engineering

Paper Submission

UCAmI-IWAAL-CLIHC invites high quality contributions describing significant, original, and unpublished results for submission in the following categories:

- <u>Long papers:</u> Intend to allow presentation of academic research results of high quality. Submissions must contain an original contribution, and may not have already been published in another forum, nor be subject to review for other conferences or publications. Contributions should include unpublished results of research, case studies or experiences that provide new evidence about the research or application regarding to the main topics. Articles accepted in this category will be published in the proceedings of the event. Long papers must not exceed 8 pages (including figures and appendices).
- <u>Short papers</u>: Intend to allow presentation of ongoing studies with partial (but significant) results. Submissions must contain an original contribution, and may not have already been published in another forum, nor be subject to review for other conferences or publications.

- Articles accepted in this category will be published in the proceedings of the event. Short papers must not exceed 4 pages (including figures and appendices).
- <u>Doctoral Consortium</u>: PhD students are invited to present the topic and progress of their research, in order to obtain feedback from a panel of experts. Papers for doctoral consortium must not exceed 6 pages (including figures and appendices).

Papers Format

Lecture Notes in Computer Science (LNCS). Please ensure that your papers are formatted correctly and are within the specified page limits. Author information and templates are available in Information for LNCS Authors web.

All papers should be written in English.

Submission Procedure:

All submissions should be made by EasyChair platform and must accomplish the LNCS Formatting Guidelines. The paper submission procedure will be announced soon at the website of the conference: http://mami.uclm.es/ucamiiwaal2013

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Contact:

grupo.mami@uclm.es