



## **10th International Conference on Ubiquitous Computing and Ambient Intelligence (IWAAL & AmiHEALTH included)**

### **Canary Islands ( Spain)**

November 29th to December 2nd, 2016

<http://mami.uclm.es/ucami-2016>

### **The conference proceedings in the Springer LNCS series.**

Extended versions of selected papers will be published in ISI Journals special issues.

### **Selected papers will be published in the following journals:**

- Sensors Journal
  - Mobile Information System Journal
  - Ambient Intelligence & Humanized Computing Journal
  - International Journal of Computational Intelligence Systems
- (More Journals to be announced)

### **Important dates:**

*Paper submission: June 15th, 2016(extended)*

*Notification of acceptance: July 30th, 2016*

*Camera-ready version: September 1st, 2016*

*Conference dates: November 29<sup>th</sup> to December 2<sup>nd</sup>, 2016*

### **Impact Factor**

**(IF) 2014 = 2.245**

**(IF) 2014 = 0.949**

**(IF) 2015 = 0.835**

**(IF) 2014 = 0.574**

### **Conference background & goals:**

#### **(Note.- In the current Edition, IWAAL & AmiHEALTH conferences have been included as tracks into UCAMI)**

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

AmI environment 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 these solutions 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 AmI 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, Home Automation among others.

The main focus of this edition of the UCAMI Conference will be "*Ambient Intelligence: Sensing, Processing and Using Environmental Information*".

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.

One natural and critical human need, where Ambient Intelligence can be used, is healthcare. In such a domain, ubiquitous systems can be used to improve quality of life of the people. While Ambient Intelligence in health applications is increasingly getting research momentum, it does not reach a level of maturity yet. Reasons for such deficiency include not only the challenges of understanding the health domain by computer scientists, but also the difficulty of dealing with such a critical domain, where errors are unacceptable. In this sense, a track of Health is aimed at boosting this area of research by focusing

not just on innovations on the infrastructure and technology required for achieving the ambient intelligence in health, such as smart environments and wearable medical devices, but also on the development of novel testing, verification and evaluation techniques that make possible the actual implementation of such innovations.

<p><b>AAL(IWAAL)</b></p> <ul style="list-style-type: none"> <li>- Monitoring of chronic and non-chronic diseases in AAL</li> <li>- Solutions for active ageing, social integration and self-care</li> <li>- Entertainment and promotion of healthy life in AAL</li> <li>- Stress, burden and quality of life in carers of AAL environments.</li> <li>- People learning and education in AAL environments</li> <li>- Security and privacy in AAL</li> <li>- Behaviour analysis in AAL environments</li> <li>- Context-Awareness in Assistive environments</li> <li>- Experiences and study cases in AAL</li> <li>- Wearables technologies and sensor networks. Smart homes for AAL.</li> <li>- Middleware architectures for AAL</li> <li>- Sensing, Data management and Big data in AAL</li> <li>- Standards and interoperability</li> </ul> <p><b>HEALTH(AmIHEALTH)</b></p> <ul style="list-style-type: none"> <li>- Health, wellness and disease monitoring</li> <li>- Communication, cloud, and network architectures for Health</li> <li>- Education and e-Learning systems in Health domains.</li> <li>- Knowledge management for health: context, behavior and user modeling.</li> <li>- Data Analytics for Health environments.</li> <li>- Health ecosystems: frameworks, models and methodologies</li> <li>- Interaction, social, and user experience within Health environments.</li> <li>- Mobile and ubiquitous Health</li> <li>- Smart technologies and algorithms for Health</li> </ul> <p><b>SECURITY</b></p> <ul style="list-style-type: none"> <li>- Authentication, access control and authorization</li> <li>- Confidentiality, key management and trust establishment</li> <li>- Design and analysis of cryptographic protocols</li> <li>- Lightweight security solutions</li> <li>- Privacy, anonymity, non-traceability and non-repudiation</li> <li>- Integrity, reliability, resiliency and fault tolerance</li> <li>- Secure mobile applications</li> <li>- Self-organized, autonomic and distributed security</li> <li>- Wireless security</li> </ul>	<p><b>IoT</b></p> <ul style="list-style-type: none"> <li>- IoT applications and services. Research and Innovation.</li> <li>- How IoT technology will affect business and product development</li> <li>- Current and future trends in IoT</li> <li>- Distributed mobile applications based on IoT</li> <li>- Making money with the Internet of Things. New IoT Business Models</li> <li>- Security, privacy and trust in IoT</li> <li>- IoT Interoperability and Integration</li> <li>- IoT in the Transport system. The new VANET</li> <li>- Performance evaluation metrics IoT</li> <li>- Designing ultra-low power IoT nodes</li> <li>- Design and Deployment of the Infrastructure for IoT-enabled systems and applications</li> <li>- Brillo. Google's IoT O.S. Experiences and developments</li> </ul> <p><b>AD-HOC AND SENSOR NETWORKS</b></p> <ul style="list-style-type: none"> <li>- Applications of hybrid wireless ad hoc networks</li> <li>- Self-organizing protocols for heterogeneous ad hoc networks</li> <li>- Device-2-Device Communications (D2D);</li> <li>- Cooperation incentive models for Ad-hoc Networks</li> <li>- Vehicle-to-X communications (V2X)</li> <li>- Protocols for Ad-Hoc networks</li> <li>- Innovative real-world sensor network deployments and applications</li> <li>- Topology control and routing protocols in sensor network deployments</li> <li>- Novel communication paradigms for wireless sensor networks</li> <li>- Mobility management in sensor applications and deployments</li> <li>- Location techniques, routing, medium access control for sensor networks</li> <li>- Energy efficiency, energy efficient protocols for sensor networks.</li> <li>- Ambient Intelligence Techniques Energy Saving.</li> </ul>	<p><b>SMART CITIES</b></p> <ul style="list-style-type: none"> <li>- Internet of Things and the Web of Things applied to smart cities</li> <li>- Web of Data and Linked Data to assemble urban apps</li> <li>- Citizen participation and data generation, controlling data provenance and trust</li> <li>- Security and privacy challenges for IoT, citizen-generated data, and Linked Data</li> <li>- Gaming with a purpose (GWAP) to incentivize citizen participation</li> <li>- Interaction paradigms in the Smart City</li> <li>- Novel context sensing mechanisms in the city</li> <li>- Behaviour Change practices applicable to urban environments</li> <li>- Urban analytics: determining human dynamics in the smart city</li> <li>- City services publication, indexing, discovery, recommendation and consumption</li> <li>- Architectures for consuming and analyzing - - -</li> <li>- Urban Broad Data</li> <li>- Real deployments, using cases and experiments</li> <li>- Urban Transports.</li> </ul> <p><b>HUMAN-COMPUTER INTERACTION</b></p> <ul style="list-style-type: none"> <li>- Natural User Interfaces.</li> <li>- Human-centric interfaces for Aml environments</li> <li>- Multimodal Interfaces.</li> <li>- Use of context and location information in user interfaces.</li> <li>- Novel input devices.</li> <li>- Ubiquitous and ambient displays.</li> <li>- Robot- Human Interaction.</li> <li>- Human-Ambient Interaction.</li> <li>- Mobile Interfaces.</li> <li>- Affective interfaces(recognition and enactment of emotions).</li> <li>-User modeling.</li> <li>- Personalization and adaptation of user interfaces.</li> <li>- User experience in Ambient Computing.</li> <li>- Interaction with smart objects and tangible interfaces.</li> <li>- Brain computer interaction.</li> <li>- Evaluation of interfaces in Ambient and Ubiquitous environments.</li> <li>- Mobile Augmented Reality.</li> </ul>
<p><b>General Chairs:</b></p> <ul style="list-style-type: none"> <li>- Jose Bravo, University of Castilla La Mancha, Spain.</li> </ul>	<p><b>Local Organizing Chairs:</b></p> <ul style="list-style-type: none"> <li>- Alexis Quesada, of Las Palmas de Gran Canaria Spain.</li> </ul>	<p><b>UCAmI PC CO- Chairs:</b></p> <ul style="list-style-type: none"> <li>- Carmelo R. García, University of Las Palmas de Gran Canaria, Spain</li> <li>- Pino Caballero-Gil, University of La Laguna, Spain.</li> <li>- Mike Burmester. University of State of Florida, USA.</li> </ul>

### **Types of Submission:**

**Long papers.** 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 12 pages (including figures and appendices).**

**Short papers.** Intended to allow presentation of ongoing studies with partial (however, 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 6 pages (including figures and appendices).**

**Doctoral Consortium.** 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 8 pages (including figures and appendices).**

**Posters.** Posters will be peer-reviewed by members of the Posters Committee based on originality, significance, quality, and clarity. Poster authors are not required to transfer copyright. Accepted poster papers will be allocated 2 pages in the conference proceedings. In addition to the **3-pages submission**, accepted poster authors will be asked to generate a poster and possible demonstration to be displayed in a dedicated poster area and presented during a poster session at the conference.

**All papers should be written in English.**

### **Submission Procedure:**

All submissions should be made by EasyChair platform and must follow the LNCS Formatting Guidelines. Details of paper submission process will be announced soon through the website of the conference:

<http://mami.uclm.es/ucami-2016>

You can submit your paper through the following:

<https://easychair.org/conferences/?conf=ucami2016>

### **Conference Venue:**

**Hotel Costa Meloneras Resort, Canary Islands, Spain**

[http://www.lopesan.com/es/hotel-lopesan-costa-meloneras-resort\\_115.html](http://www.lopesan.com/es/hotel-lopesan-costa-meloneras-resort_115.html)