

13th International Conference on Ubiquitous Computing and Ambient Intelligence

UCAmI 2019

<http://mamilab.esi.uclm.es/ucami2019>

Toledo, Spain
December 2 to 5th, 2019

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) 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 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 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 and Home Automation among others. The main focus of this edition of the UCAmI Conference will be "Ambient Intelligence: Sensing, Processing and Using Environmental Information".

Publication

All accepted papers will be included in Proceedings (ISSN 2504-3900) published by MDPI. Selected papers will be published in the following journals:

- Future Generation Computer Systems (IF(2018) = 5.768 Q1)
- Sensors Journal (IF(2018) = 3.031 Q1)
- Journal of Biomedical Informatics (IF(2018) = 2.950 Q2)
- Personal and Ubiquitous Computing (IF(2018) = 1.735 Q3)

(More journals to be announced shortly on <http://mamilab.esi.uclm.es/ucami2019>)

Important Dates

Paper submission: ~~July 1st, 2019~~ **July 15th, 2019 (Extended)**
Notifications: **September 20th, 2019**
Camera-ready version: **October 20th, 2019**
Conference dates: **December 2 to 5th, 2019**

TRACKS

HEALTH (AmIHEALTH) (Topics)

- Health, wellness and disease monitoring
- Communication, cloud, fog and network architectures for Health
- Education and e-Learning systems in Health domains
- Knowledge management for health: context, cognition, behavior and user modelling
- Data Science for Health Environments
- Health ecosystems: frameworks, models and methodologies
- Interaction, social and user experience within Health Environments
- Gamification and Serious Games for Health
- Mobile and ubiquitous Health
- Smart technologies and algorithms for Health
- Health Education

AMBIENT, ACTIVE AND ASSISTED LIVING (A³L) (Topics)

- Active ageing and healthy living
- Technologies for building age-friendly environments
- Sustainable smart healthcare for ageing
- Digital empowerment for ageing well
- Wellbeing of caregivers and other healthcare professionals. Management of stress, burden and quality of life
- Promoting autonomy and self-care at home. Integrating A³L in smart homes
- Dealing with frailty and other disabilities to overcome daily barriers
- Smart monitoring of chronic and non-chronic diseases
- Promoting a healthy lifestyle at the workplace
- Security and privacy in A³L scenarios
- Education, training and coaching in A³L

INTERNET OF THINGS (IOT) AND SENSORS (Topics)

- IoT enabling technologies, techniques and methods
- IoT application and services
- Current and future trends in IoT
- IoT societal impacts
- Security, privacy and trust in IoT
- IoT interoperability, integration and performance
- IoT experimental results and deployment scenarios
- Human factors in IoT
- Sensor design, integration and combination
- Architectures, protocols and algorithms of sensor networks
- Energy management, resource allocation, quality of service (QoS) and fault tolerance in Sensor Networks
- Applications of hybrid sensor networks
- Innovative real-world sensor deployments and applications

SMART ENVIRONMENTS (Topics)

- Adaptive Environments
- Ambient Behavioural Analysis
- Big data within Intelligent Environments
- Design principle and guidelines for Intelligent Environments
- Enabling intelligence within environments
- Environmental Assistive Agents
- Indirect/Inferred Sensing through environmental side channels
- Industry 4.0: Environments, facilities and solutions
- Intelligent Surveillance and Alerting
- Smart Environments and e-learning process
- Smart Classes
- Smart Labs
- Smart Campuses
- LPWAN technologies/long range communications
- Pervasive Care Solutions
- Predictive Maintenance
- Retroactively provisioned smart environments
- Resilient/Self-Healing Infrastructure technologies
- Secure Access Control Solutions
- Smart Cities - sensing, realisation and optimisation
- Solutions enabling intelligent design, visualisation or simulation of intelligent environments

HUMAN-COMPUTER INTERACTION (Topics)

- Natural User Interface
- Human-Centric Interfaces for AmI environments
- Multimodal Interface
- Use of context and location information in user interfaces
- Novel input devices
- Robot-Human interaction
- Human-Ambient Interaction
- Mobile Interfaces
- Affective Interfaces
- User modelling
- Personalization and adaptation of user interfaces
- Ubiquitous and ambient displays
- User experience in Ambient Computing
- Interaction with smart objects
- Tangible and wearable interfaces
- Brain-computer interaction
- Evaluation of interfaces in Ambient and Ubiquitous environments
- Mobile Augmented Reality
- New methods and methodologies for Evaluation
- Theoretical aspects of HCI
- Adaptive interfaces
- Case studies for users with special needs

<ul style="list-style-type: none"> ■ Sensor and actuator technologies in ambient assisted living contexts 	<ul style="list-style-type: none"> ■ Cultural aspects of design ■ HCI & e-Learning ■ Context awareness in the learning process
AMBIENT INTELLIGENCE FOR EDUCATION (Topics)	
<ul style="list-style-type: none"> ■ Aml Environments and e-learning processes ■ Aml Campuses ■ Aml Classroom ■ Aml Labs ■ Smartphones in the classroom ■ Internet of Things in education 	<ul style="list-style-type: none"> ■ Security, Privacy and Trust in the classroom ■ Virtual, Mixed and Augmented Reality for education ■ Collaborative User Interfaces for education ■ Robotics for education ■ Wearables for education ■ Experiences and study cases
Satellite Events	
<u>eMadrid Workshop on Smart Education</u>	
<u>Workshop on Ambient Intelligence and Data Science for Tourism, Travel, Transport and Traffic (AmlDaST⁴)</u>	
<u>Special Session on Living Labs Experiences</u>	
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