11th International Conference on Ubiquitous Computing and Ambient Intelligence
UCAmI 2017

http://mamilab.esi.uclm.es/ucami2017

Villanova University, Philadelphia, Pennsylvania
November 7 to 10th, 2017

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 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 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 conference papers will be included in **Springer Lecture Notes in Computer Science (LNCS)**. Selected papers will be published in the following journals:
- Sensors Journal (IF(2015) = 2.033)
- Frontiers in Human Neuroscience (IF(2015) = 3.634)
- Journal of Ambient Intelligence & Humanized Computing (IF(2015) = 0.835)
- Computer and Electrical Engineering (IF(2015) = 1.726)

(More journals to be announced shortly on http://mamilab.esi.uclm.es/ucami2017)

Important Dates

Paper submission: ~~MAY 1ST, 2017~~ MAY 15th, 2017 (extended deadline)
Notification of acceptance: June 15th, 2017
Camera-ready version: July 10th, 2017
Conference dates: November 7 to 10th, 2017

TRACKS

HEALTH (AmIHEALTH) (Topics)
- Health, wellness and disease monitoring
- Communication, cloud, and network architectures for Health
- Education and e-Learning systems in Health domains
- Knowledge management for health: context, behavior and user modeling
- Data Analytics for Health environments
- Health ecosystems: frameworks, models and methodologies
- Interaction, social, and user experience within Health environments
- Mobile and ubiquitous Health
- Smart technologies and algorithms for Health

AAL (IWAAL) (Topics)
- Monitoring of chronic and non-chronic diseases in AAL
- Solutions for active ageing, social integration and self-care
- Entertainment and promotion of healthy life in AAL
- Stress, burden and quality of life in carers of AAL environments
- People learning and education in AAL environments
- Security and privacy in AAL
- Behaviour analysis in AAL environments
- Context-Awareness in Assistive environments
- Experiences and study cases in AAL
- Wearables technologies and sensor networks. Smart homes for AAL
- Middleware architectures for AAL
- Sensing, Data management and Big data in AAL
- Standards and interoperability

AD-HOC SENSOR NETWORKS (Topics)
- Applications of hybrid wireless ad hoc networks

HUMAN-COMPUTER INTERACTION (Topics)
- Natural User Interfaces
- Human-centric interfaces for AmI environments
- Multimodal interfaces
- Use of context and location information in user interfaces
- Novel input devices
- Robot-human interaction
- Human-ambient interaction
- Mobile interfaces
- Affective interfaces (recognition and enactment of emotions)
- User modeling
- Personalization and adaptation of user interfaces
- Ubiquitous and ambient displays
- User experience in ambient computing
- Interaction with smart objects and tangible interfaces
- Brain computer interaction
- Evaluation of interfaces in ambient and ubiquitous environments

IoT & SMART CITIES (Topics)
- IoT applications and services. Research and Innovation
- How IoT technology will affect business and product development
- Current and future trends in IoT
- Distributed mobile applications based on IoT
- Making money with the Internet of Things. New IoT Business Models
- Security, privacy and trust in IoT
- IoT Interoperability and Integration
- Iot in the Transport system. The new VANET
- Performance evaluation metrics IoT
- Designing ultra-low power IoT nodes

- Self-organizing protocols for heterogeneous ad hoc networks
- Device-2-Device Communications (D2D);
- Cooperation incentive models for Ad-hoc Networks
- Vehicle-to-X communications (V2X)
- Protocols for Ad-Hoc networks
- Innovative real-world sensor network deployments and applications
- Topology control and routing protocols in sensor network deployments
- Novel communication paradigms for wireless sensor networks
- Mobility management in sensor applications and deployments
- Location techniques, routing, medium access control for sensor networks
- Energy efficiency, energy efficient protocols for sensor networks

SUSTAINABILITY (Topics)
- Environmental health and climate monitoring
- Sustainable and smart cities
- Information and communications technologies for development (ICT4D)
- Computational Energy Consumption
- Sustainability and Assistive Computing
- Ambient Intelligence for Health and Sustainability
- Mobile Computing for Sustainability

- Design and Deployment of the Infrastructure for IoT-enabled systems and applications
- Brillo. Google's IoT O.S. Experiences and developments
- Internet of Things and the Web of Things applied to smart cities
- Web of Data and Linked Data to assemble urban apps
- Citizen participation and data generation, controlling data provenance and trust
- Security and privacy challenges for IoT, citizen-generated data, and Linked Data
- Gaming with a purpose (GWAP) to incentivize citizen participation
- Interaction paradigms in the Smart City
- Novel context sensing mechanisms in the city
- Behaviour Change practices applicable to urban environments
- Urban analytics: determining human dynamics in the smart city
- City services publication, indexing, discovery, recommendation and consumption
- Architectures for consuming and analyzing Urban Broad Data
- Real deployments, using cases and experiments
- Urban Transports
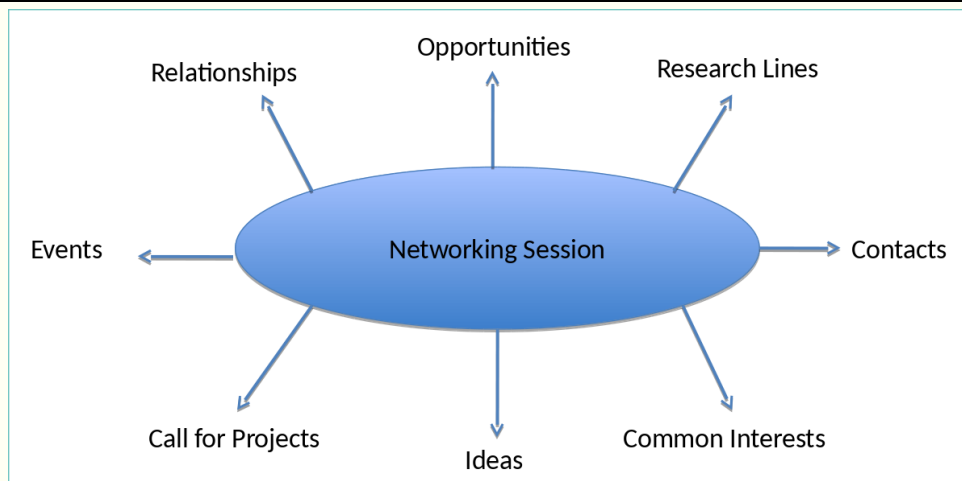
Special Sessions

SOCIO-COGNITIVE & AFFECTIVE COMPUTING (Topics)
- Affective Computing
  - Sentient Computing
  - Social Interaction
  - Virtual and Augmented Reality
  - Emotional Robots
  - Ubiquitous and Pervasive Computing
  - Mobile Computing
  - Context Aware Computing
  - Ambient Intelligence
  - Ambient Assisted Living
  - Physiological Computing
- Brain-Computer Interfaces
- Biofeedback and Neurofeedback Systems
- Eye Movements, Gaze Monitoring and Eye Blink Activity
- Wearable Systems
  - Applications and Case Studies

AmI SYSTEMS & MACHINE LEARNING (Topics)
- Learning from observation from humans
- Learning from natural instruction
- Learning from conversation with a human
- Experiential learning
- Learning from a human coach (reverse intelligent tutoring systems)
- Human Interaction with Ubiquitous and mobile System
- User modeling
- User Profiling
- Human-Ambient Interaction
- User experience in Ambient Computing
- Evaluation of interfaces in Ambient and Ubiquitous environments

Networking Session

Contact

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