Goals and Objectives

The aim of this working group is the study and promotion of research and development in the area of smart homes and ambient assisted living applications. A “smart home” is a residential setting equipped with a set of advanced electronics, sensors and automated devices specifically designed for care delivery, remote monitoring, early detection of problems or emergency cases and promotion of residential safety and quality of life. Information and Communication Technologies (ICTs) are utilized to allow individuals to live independently in their preferred environment. Thus, systems are patient-centered rather than institution-centered as they are designed to address the needs of individuals, their families and caregivers rather than these of health care facilities. Furthermore, such technologies can allow for the detection of emergencies and provide the means to increase social interaction and minimize isolation for residents (by increasing access to information, entertainment resources and communication with peers). The Working Group provides a forum for ongoing discussion and a collaborative platform for research and development combining expertise in engineering, sensor technologies, ubiquitous computing, health systems, gerontology and human computer interaction. We will address not only technical challenges but also the end users’ needs, ethical, clinical and policy issues and the design of sustainable and non-obtrusive interventions, providing a holistic examination of the current status and future trends in smart homes and ambient assisted living.

Recent Activities

The WG on Smart Homes and Ambient Assisted Living had its business meeting during Medinfo 2010 and discussed next steps and potential synergies with other working groups in sensors and telemedicine.

We also organized a workshop entitled SmartE (Smart Environments to Enhance Health Care) in conjunction with the Ninth Annual IEEE international Conference on Pervasive Computing and Communications (PerCom 2011) on March 25, 2011 in Seattle, USA.

The workshop focused on:

- innovative pervasive computing applications for health care settings and consumers
- context modeling and reasoning for health care monitoring
- adaptive, autonomic and context-aware computing for diverse populations
- mobile/ wireless computing systems and services in the health care context
- sensors and RFIDs in pervasive health care monitoring systems
- wearable health care devices
- integration of smart environment data into personal health record applications
- visualization approaches to capturing wellness or health based on smart sensing data capture
- social, ethical and economic models for pervasive health care systems
- privacy and confidentiality considerations for pervasive health care applications.

The workshop website is at: [http://www.health-smarthomes.org/smarte/](http://www.health-smarthomes.org/smarte/)

The workshop was a full day event that included 12 peer reviewed paper presentations (papers were also included in the PerCom proceedings).

**Future Activities**

- The WG on Smart Homes and Ambient Assisted Living is going to have a business meeting at Medinfo 2013 on Friday 23 at 10AM and identify new activities
- Will submit a proposal to host a workshop to AMIA
- Inform the members of the WG about a special issue of Health Systems on Evaluation of Telehealth and e-Health Systems and Processes with deadline in now