Now, an intelligent system to help the elderly avoid forgetting everyday tasks

ANI Washington, Fri, 28 Aug 2009

Washington, August 28 (ANI): Scientists at the University of Granada (UGR) have announced the creation of a system that uses Artificial Intelligence techniques to help elderly people, or those with special needs, avoid forgetting certain everyday tasks.

The researchers have revealed that their system uses sensors distributed in the environment to detect people's actions, and mobile devices to remind them.

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Suppose, say the researchers, an elderly lady who is about to go to bed goes into her room, sits down on the bed, takes off her slippers, and turns off the light.

According to them, before she gets into bed, a small alarm will go off, and a mobile device will remind her that she has forgotten to take her tablets.

"It is a prototype which, in a non-intrusive manner, facilitates the control of the activity of people with special needs and increases their independence," said Maria Ros Izquierdo, from the Higher Technical School of Computer Engineering of the UGR.

The system recognizes the everyday actions of the users by means of Radio Frequency Identification (RFID) labels. These labels are discreetly placed on the objects that the individuals touch most often, in such a way that, when they do so, a signal is sent to a computer or mobile device situated in the house itself or at an assistance centre some distance away.

To compile a list of actions-such as remembering to take the keys or the mobile phone before leaving home-the activities of the people are assessed with Artificial Intelligence techniques.

"It is not necessary to use cameras or microphones, and the devices which are used do not entail any technological complications for users, nor do they modify their daily routines," said Ros.

To evaluate the novel system, the university team have also designed an intelligent space called 'Tagged World', which simulates the rooms of a house, with sensors embedded in the environment helping to recognize the behaviour of its occupants.

The researchers monitored each user so as to obtain an individualized database. They later verified with a test the reliability of the system and the degree of intrusion felt by the participants.

"The system does not modify the life of the users, but does positively modify that of the people who look after them," indicated Ros, who recalled that elderly people or those with special needs often reject the aid of others and demand more independence.

The researcher believes that the new system may help to achieve this objective.

A research article describing the new system has been published in the Expert Systems with Applications magazine. (ANI)

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