

## **An indoor positioning system for monitoring the behavior of older people in their homes**

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### **Abstract**

The increase in older people wishing to live alone in their own homes has increased studies of monitoring systems to improve the quality of life of older people, their families and cares. The aim of the communication is to present the results of the evaluation of the degree of acceptability and satisfaction with the Senior Monitoring application. At the end of the study, an acceptability scale was passed to the 11 elderly participants (six women and five men) with an average age of 68 years and a standard deviation of 8 years. The scale consists of six Likert items with five response categories that assess two dimensions: usability and satisfaction. The average usability was 12.18 points (SD = 1.99) and the average satisfaction was 12.91 points (SD = 2.21); quite high values. As a qualitative assessment, several people expressed the wish that the device would be able to place the person away from home. The Senior Monitoring application has been evaluated satisfactorily by the study participants. New studies are opened in the use of conversational devices that allow the evaluation of aspects such as loneliness, depression, well-being through the analysis of behavioral data collected at home through conversational devices.

### **Speaker Publications:**

1. Global Coalition on Aging. Relationship-Based Home Care: A Sustainable Solution for Europe's Elder Care Crisis; Technical Report; Global Coalition on Aging: New York, NY, USA, 2018.
2. Eisa, S.; Moreira, A. A Behaviour Monitoring System (BMS) for Ambient Assisted Living. *Sensors* 2017, 17, 1946.
3. Studenski, S. Gait Speed and Survival in Older Adults. *JAMA* 2011, 305, 50.
4. Wilson, J.; Patwari, N. Radio Tomographic Imaging with Wireless Networks. *IEEE Trans. Mob. Comput.* 2010, 9, 621–632.
5. Pirker, W.; Katzenschlager, R. Gait Disorders in Adults and the Elderly: A Clinical Guide. *Wien. Klin. Wochenschr.* 2017, 129, 81–95.

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### **Biography:**

Antonio Caballer has completed his PhD from Jaume I University. He is an Associate Professor in the Department of Developmental, Educational and Social Psychology and Methodology of Jaume I University. He has published in reputed journals and has been working in different projects about older adults. He is interested in assessing loneliness and social isolation with Information and Communication Technologies.