

Title: Research for the implementation of a personal robotic assistant for the elderly or disabled based on networked embedded structures evolving in a smart environment

Abstract: The current project proposes a novel approach on the implementation of the concept of personal robotic assistant for the elderly or disabled. We have started with noting that, in spite of the large number of studies and solutions regarding the control of autonomous robots, there are very few commercially available products in this field. Therefore, the current project aims to explore and propose feasible solutions in the following directions:

- creating new control structures based on network embedded microcontrollers;

- defining the concept of smart environment, capable of multiple interactions with the mobile robots;

- creating new algorithms and adapting the existing algorithms so that they can be easily implemented on embedded structures;

- creating new concepts and methods aimed to simplify the programming of robotic units at the end user, so that they can be programmed by users with virtually no knowledge of programming.

With these conceptual clarifications, the overall cost of developing personal robotic assistants can be reduced up to ten times. This is significant, considering the fact that the process of aging of the population is reaching alarming levels in most countries.

Description of expertise(enter a brief text describing your organisation's expertise relevant to this project): H2020 project management

Type of partner sought / Specific area of activity of the partner / Task to be performed:
The ideal partner should have some expertise in the management of H2020 projects, and provide guidance in the bureaucratic process of project submission and reporting.