RAMCIP
Project ID: 643433
Funded under: H2020-EU.3.1.4. - Active ageing and self-management of health

Robotic Assistant for MCI patients at home

From 2015-01-01 to 2018-06-30 | RAMCIP Website

Project details

<table>
<thead>
<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
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<tr>
<td>EUR 3 981 178</td>
<td>PHC-19-2014 - Advancing active and healthy ageing with ICT: service robotics within assisted living environments</td>
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<th>EU contribution:</th>
<th>Call for proposal:</th>
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<tr>
<td>EUR 3 981 178</td>
<td>H2020-PHC-2014-single-stage</td>
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Coordinated in:
Greece

Funding scheme:
RIA - Research and Innovation action

Objective

RAMCIP will research and develop a novel domestic service robot, with the aim to proactively and discreetly assist older persons, MCI and AD patients in their every day life. Instead of simply being an obedient servant, the RAMCIP robot will have high-level cognitive functions, driven through advanced human activity and home environment modelling and monitoring, enabling it to optimally decide when and how to assist. The robot will provide subtle physical and cognitive user skills training, by maintaining an optimal balance between physical assistance provision and user stimulation to act. The cognitive functions will orchestrate an ensemble of advanced lower-level mechanisms, enabling the robot to (a) communicate with the user and (b) establish dextrous and safe robotic manipulations. Communication will be based on multimodal interfaces, adapted and fused so as to meet the current user’s needs and interaction context. Apart from touch-screen, speech and gestural modalities, RAMCIP will incorporate an augmented reality display, as well as an underlying empathic communication channel, allowing it to sense user affect and moderate it. In the context of robotic manipulations, RAMCIP will introduce advanced dexterity in service robots for assisted living environments; the robot will employ a sophisticated anthropomorphic hand, manipulatd though novel grasping and dexterity algorithms, being capable to grasp and manipulate a variety of objects in realistic user homes, supporting also safe handover. Safety will be a major research focus. By establishing safe and dextrous manipulations, emphasis will be paid on physical HRI, enabling novel assistance scenarios that will involve physical contact between the user and the robot. Through multi-faceted proactive assistance enabled through all the above, RAMCIP will advance user independency and quality of life of its user. The robot will be evaluated in two pilot sites that will be deployed in two countries.

Related information

Result In Brief
Advanced robot provides assistance at home to older persons in need

Report Summaries
Periodic Reporting for period 2 - RAMCIP (Robotic Assistant for MCI patients at home)
## Coordinator

ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS  
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EU contribution: EUR 1,070,625.50

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**Activity type:** Research Organisations  
Contact the organisation

## Participants

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**Activity type:** Higher or Secondary Education Establishments  
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**Activity type:** Higher or Secondary Education Establishments  
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**Activity type:** Research Organisations  
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**Activity type:** Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contact the organisation

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