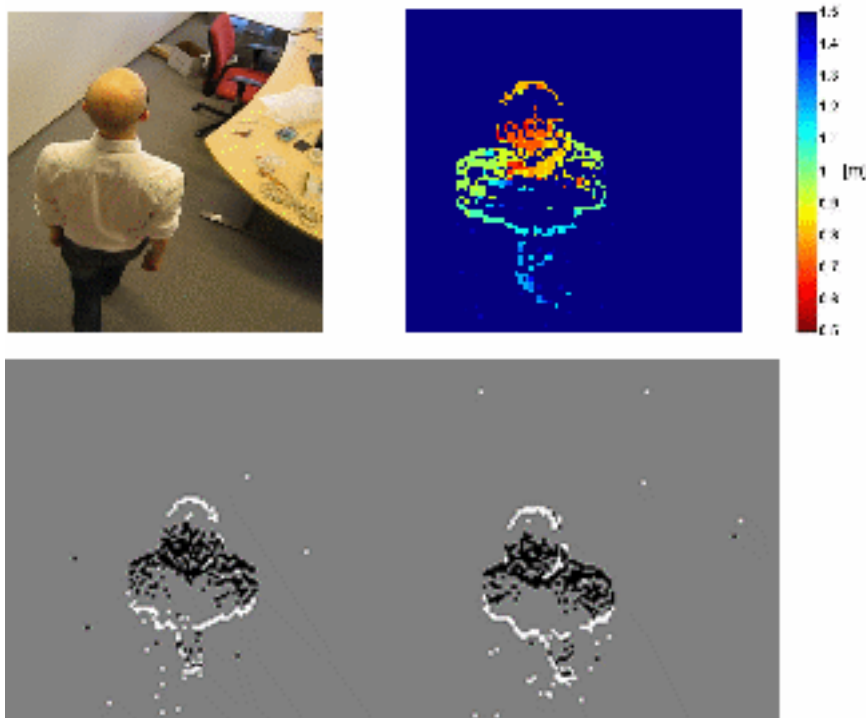


CARE - Safe Private Homes for Elderly Persons

The CARE project is an R&D activity running under the Ambient Assisted Living Joint Programme, which is co-funded by the EC and by several European countries. The project aims to realise an intelligent monitoring and alarming system for independent living of elderly persons. Specifically, this project targets the automated recognition and alarming of critical situations (like fall detection) using a visual sensor and real-time processing while preserving the privacy and taking into account system dependability issues, especially ensuring reliability, availability, security, and safety from a holistic point of view.

A biologically-inspired neuromorphic vision sensor from AIT will be integrated in the Everon (alarm, security, and monitoring) system for seamless analysis and tracking of elderly persons at home. This real-time information can be exploited for incident detection (e.g., fall detection, immobilised person; see images below), and instantaneous alarming the concerned parties.



Fall detection with the neuromorphic vision sensors: (1) picture from the scene (top left), (2) its corresponding data representation from a pair of neuromorphic vision sensors (bottom), (3) the resulting stereo representation (top right).

In relation to the Ambient Assisted Living Joint Programme, CARE proposes an innovative technology and system concept for real-time services to nursing homes and service homes. This initiative is an end-user driven R&D activity where the end-users represent the major market players in Ambient Assisted Living activities as they have direct relation and responsibility towards elderly persons ensuring their safety and independent living.

The R&D partners comprise research institutes (AIT, BME), SMEs (Everon, SensoCube) and end-users. The selected elderly homes (Senioren Wohnpark Weser GmbH in Germany and Yrjö&Hanna in

Finland) will be used for the evaluation and demonstration of the CARE concept.

The project started on July 1, 2009 with a duration of 30 months.

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