

BAALL

Bremen Ambient Assisted Living Lab



Bremen Ambient Assisted Living Lab – App



Bremer „Intelligent Wheelchair“



Interactive 3D-Model of the BAALL

Ambient Assisted Living in Bremen

The Bremen Ambient Assisted Living Lab (BAALL) is a 60qm lab apartment inside the premises of the DFKI research department Cyber-Physical Systems in Bremen, where assistance systems are developed and tested following the “Design for All” (DfA) principle with a special focus on age- and mobility-based systems. The BAALL is one of six DFKI Living Labs.

New intelligent technologies adaptively supporting people depending on their physical and cognitive abilities are being tested under realistic conditions in specific scenarios of daily living. Further research is concerned with future-proof infrastructures that enable to implement step-by-step upgrades as needed for technical assistances possibly desired in the future without requiring major reconstruction or adjustments. The technical requirement for this is the interoperability of the devices as well as their enduring standardization.

The laboratory can also be used by cooperating partners and companies.

Data and Facts

The BAALL was developed in cooperation between the German Research Center for Artificial Intelligence (DFKI) and the University of Bremen within an EU-project called SHARE-it as well as the Collaborative Research Center SFB/TR8 Spatial Cognition of the German Research Foundation and it was opened in 2009.

BAALL Visiting Address:

Cartesium
Enrique-Schmidt-Straße 5
28359 Bremen

Technical Features

- Mobility assistance by the “Intelligent Wheelchair” (Xeno, Otto Bock) as well as the IntelligentWalker
- Environment assistance by intelligent appliances and furniture (Kitchen appliances, refrigerator, sliding doors, wardrobe, bed)
- Low-threshold human-machine-interaction by intuitive user interfaces (TV, voice control, interactive virtual 3D-model)

About us

In our research unit Cyber-Physical Systems (CPS) we bundle expertise about technical system design and ambient assisted living research. We focus on the safety of increasing networking of the most diverse technical systems, their integration and growing autonomy in many areas of daily life – from smartphone to car to medical techniques and cloud computing. It is our challenge to make systems function in a correct and reliable way on a permanent basis.

DFKI projects at BAALL

- 2014 – 2016: SIRKA – Sensorsuite for Individual Feedback of Physical Activity
- 2012 – 2015: ASSAM – Assistants for Safe Mobility
- 2011 – 2013: SHIP – Semantic Integration of Heterogenous Processes
- 2007 – 2009: SHARE-it – Supported Human Autonomy for Recovery and Enhancement of cognitive and motor abilities using information technologies

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