

ICAN

Integrated Communication and control for All Needs

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More and more domestic appliances become available to all citizens. Emerging technologies, such as mobile communication and smart-home technology, enable improvements in all-day living tasks. Although these products are even more important for the quality of life of elderly persons and people with disabilities, the products are very often not usable, due to the complicated user-interface and limited rest functionality of the users. As a consequence, very often the value of this cheap general-purpose equipment cannot be used by these target groups.

The ICAN project tries to improve these communication and control capabilities for people with special needs by simplifying and improving the users' ability to communicate - both face to face, and at a distance - and to control equipment and devices in their homes or workplaces.

In the ICAN project a portable device - called a function carrier - will be developed with a user-interface which can be customised to meet the needs of different user groups, and which is able to communicate with different types of domestic appliances and equipment in smart houses. Furthermore for users of powered wheelchairs it should become possible to incorporate the new device on the wheelchair, such that the user can use a single control device for driving the wheelchair and for controlling the environment.

The function carrier will follow an architecture in which building blocks - like interfaces to DECT, GSM, Batibus, Home Systems, PC, wheelchair - can be combined into a solution for different types of users and which supports a suite of access functions. The technology used for the function carrier will be based upon a hand-held PC, the buildings blocks will use existing interface components as much as possible and the overall architecture will use the M3S communication principles.

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