

Ambient Assisted Living

Reiner Wichert and Birgid Eberhardt (Eds.)

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5. AAL-Kongress 2012 Berlin, Germany,
January 24–25, 2012



Springer

Editors

Reiner Wichert
Fraunhofer-Institut für
Graphische Datenverarbeitung IGD
Darmstadt
Germany

Birgid Eberhardt
VDE Verband der Elektrotechnik
Elektronik Informationstechnik e. V.
Frankfurt/Main
Germany

ISBN 978-3-642-27490-9

e-ISBN 978-3-642-27491-6

DOI 10.1007/978-3-642-27491-6

Springer Heidelberg New York Dordrecht London

Library of Congress Control Number: 2011945159

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Printed on acid-free paper

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Preface

Due to the changing demographics, residing and being cared in the own familiar environment is becoming the more attractive alternative for an ever increasing portion of the population in contrast to an institutionalized inpatient setting. “Ambient Assisted Living” (AAL) aims at extending the time older people can live in their preferred home environment by increasing their autonomy and assisting them in carrying out activities of daily living, but also by the use of ICT products and the provision of remote services including care services that will assist them to achieve the autonomy, independence and dignity appropriate to their needs and conditions.

Even the concept of AAL has been established now over the last few years and a lot of national and international R&D projects have been funded, we are still at the beginning of a huge paradigm change within intelligent and assistive environments. Despite its tremendous market potential, AAL is still on the cusp of a mainstream break-through. A lack of viable business models is considered almost unanimously to be the greatest market obstacle to a broad implementation of innovative AAL systems.

On the other side the goal of a realization of the AAL vision is impeded by a number of obstacles and problems, for which this conference discusses possible resorts, approaches and recommendations within numerous papers. This volume contains the best scientific papers selected for presentation at the AAL-Kongress 2012 within this year’s focus on technologies in a self-determined life. This congress has the goal to bring together developers, producers, service providers, carriers and end user organisations working in the field of technologies and applications of Ambient Assisted Living and discusses the problems and challenges we have to face in the common years.

To meet these challenges a new series of events has been established in 2008 called AAL-Kongress (Congress for Ambient Assisted Living) with the focus on applications of intelligent assistive systems within the areas of “health & homecare”, “safety & privacy”, “maintenance & housework” und “social environment”. At the second AAL-Kongress 2009 more than 520 participants attended. It focused on use cases to support the manufacturing of products adjusted to the needs of the user. In 2010 the third AAL-Kongress had been organized with close to 600 participants also with the focus on use cases. In 2011 it advanced to the leading congress for AAL with 870 participants.

In 2012 the fifth AAL-Kongress is addressing economical challenges and trendsetting applications on innovative technology. To underline the research priority the research papers have been evaluated more restrictive. 156 papers from 474 authors within 8 countries have been submitted to the AAL-Kongress. After a solid review process 25 papers were accepted to be included in these scientific proceedings of the

conference. Three independent reviewers were matched by their expertise area to the topic of each paper.

In closing I would like to thank the 22 reviewers of the Reviewing Committee, the organizers of this event and all of the paper presenters and conference participants who helped to make the AAL-Kongress 2012 a success.

Program Co-Chair for Technical Research Papers
Reiner Wichert (Fraunhofer-Allianz AAL / Fraunhofer IGD)

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