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Ambient Assisted Living

Italian Forum 2020

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Preface

In recent decades, new technologies' rapid advancements and their significant cost reduction have spurred the development of increasingly flexible, customizable technological solutions for different user needs. This development had a particular impact on the progress of ambient assisted living (AAL) technological solutions such as human monitoring, smart living services, biomedical and robotic solutions, and design for all that aim to improve the health, psycho-physical well-being, and independent living of users with different needs or with disabilities. With a population that is becoming steadily older with over half the EU's population predicted to be over 65 by 2070, AAL technologies are recognized by the European Commission as the enabling drivers to build the quality of life of our current and future society to address the challenges of demographic changes, sustaining people in productive and healthy work, improving the delivery of care where and when needed. The importance of the AAL solutions has been well highlighted by the COVID-19 pandemic, where when many older people were more isolated than ever before, and thus, families and care organizations were increasingly relying on AAL technology to stay connected, while keeping older people more safe and secure at home.

All these aspects were explored during the Eleventh Italian Forum on Ambient Assisted Living (ForItAAL), hosted in Padova, Italy, and held online due to the pandemic situation about COVID-19 in December 2020. ForItAAL is the annual Italian event on the theme of technologies for ambient assisted living. At ForItAAL, companies, stakeholders and policymakers, associations, universities, and research institutions discuss the challenges associated with demographic changes and people's independence in different life scenarios: at home and in the workplace, in the cities where we live and in means of transport we use, in tourism and sport. The objectives of our community are to promote the design, development, and adoption of innovative technologies and services and thus support active ageing, disabilities, and the well-being of citizens. The book presents the refereed proceedings of the Forum and reviews the status of research, technologies, and recent achievements on AAL. The coverage is wide-ranging, with topical sections devoted to tailoring products and services to the ageing society, bio-data and artificial sensing in AAL

scenarios, cognition and technologies, and designing for inclusion and well-being, including different case studies and real-world examples where AAL technologies are successfully applied. By using a multidisciplinary approach and several points of view, the volume conveys results, prototypes, products, and services as well as provides interesting insights, from research to practice, for anyone directly or indirectly involved in the field of AAL.

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