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Descrizione fisica	1 online resource (496 p.)
Collana	Biosystems & Biorobotics, , 2195-3562 ; ; 11
Disciplina	610.28
Soggetti	Biomedical engineering Robotics Automation Geriatrics Biomedical Engineering and Bioengineering Robotics and Automation Geriatrics/Gerontology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	An AAL adaptive user interface to support frail people in manufacturing -- Electromagnetic technologies as travel aids for visually impaired subjects -- A system to promote walking for the elderly and empower tourism: the Sweet Mobility project -- IR-UWB for Ambient Assisted Living Applications -- Comparison of RGB-D Mapping Solutions for Application to Food Intake Monitoring -- Combining EEG and EMG signals in a wireless system for preventing fall in neurodegenerative diseases -- Investments and Sustainability of Public Expenditure in the Health Sector -- Low cost RGB-D vision based system to support motor disabilities rehabilitation at home -- Sensor-based AAL services for active and healthy ageing -- Pedestrian Simulation: Considering Elderlies in the Models and in the Simulation Results -- Algorithms for ADL identification -- Giving voice to images: audio description and visual impairment. Technological solutions and methodological choices -- Metabolink: m-Health solution enabling patient-centered care and empowerment for well-being and active ageing -- Alzheimer Patient's

Home Rehabilitation through ICT advanced technologies: the ALTRUISM project -- Neurophysiological and behavioural variables in cognitive impairment: towards a personalised monitoring system -- Design of Cloud Robotic Services for Senior Citizens to Improve Independent Living and Personal Health Management -- A Smart Walking Assistant for Safe Navigation in Complex Indoor Environments -- Robot Interface Design: The Giraff Telepresence Robot for Social Interaction -- Predicting freezing of gait in Parkinson's disease with a smartphone comparison between two algorithms -- A wireless sensor insole to collect and analyse gait data in real environment: the WIISEL project -- Wearable sensors for human movement monitoring in biomedical applications: case studies -- A Near Field Communication-based Platform for Mobile Ambient Assisted Living Applications -- Domestic monitoring of respiration and movement by an electromagnetic sensor -- Advanced solutions to support daily life of people affected by the Down syndrome -- Design Adaptable and Adaptive User Interfaces: a Method to Manage the Information -- Smart house and start object for AAL: design concept.

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### Sommario/riassunto

This book documents the state of the art in the field of ambient assisted living (AAL), highlighting the impressive potential of novel methodologies and technologies to enhance well-being and promote active ageing. The coverage is wide ranging, with sections on assistive devices, elderly people monitoring, home rehabilitation, ICT solutions for AAL, living with chronic conditions, robotic assistance for the elderly, sensing technologies for AAL, and smart housing. The book comprises a selection of the best papers presented at the Fifth Italian Forum on Ambient Assisted Living, which was held in Catania, Italy, in September 2014 and brought together end users, technology teams, and policy makers to develop a consensus on how to improve provision for elderly and impaired people. Readers will find that the expert contributions offer clear insights into the ways in which the most recent exciting advances may be expected to assist in addressing the needs of the elderly and those with chronic conditions.

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