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	Nota di contenuto	1.Introduction to the AAL and ELE Systems / Rossitza I. Goleva -- 1.1. Introduction -- 1.2.AAL/ELE Systems and Applications -- 1.3.A Vision for Ambient Assisted Living -- 1.4.Challenges and Research Opportunities -- 1.5.Conclusions -- References -- 2.Implanted Wireless Body Area Networks: Energy Management, Specific Absorption Rate and Safety Aspects / Azfar Shakeel -- 2.1.Introduction to WBAN -- 2.2.Applications of WBAN -- 2.3.Use of Ultra Wideband (UWB) in WBAN Applications -- 2.4.Design of Implanted Sensor Nodes -- 2.5.Implant Power Constraints and Battery Considerations -- 2.6.Energy Management -- 2.7.Specific Absorption Rate (SAR) and Safety Aspects -- 2.8.Energy Efficient Routing in WBAN -- 2.9.Adaptive Thermal-Aware Energy Efficient Routing -- 2.10.Conclusion -- References -- 3. Energy Efficient Communication in Ambient Assisted Living / Ennio Gambi -- 3.1.Introduction/Motivation -- 3.2.Background and Related Work
		Note continued: 3.3.Problem Description -- 3.4.Experimental Results -- 3.5.Summary -- Acknowledgement -- References -- 4.The Human Factor in the Design of Successful Ambient Assisted Living Technologies / Ennio Gambi -- 4.1.Introduction -- 4.2.The Human Centric Approach -- 4.3.Information and Communication Technologies in AAL -- 4.4.Technology and Users in AAL: Practical Experiences -- 4.5.Lessons Learned -- 4.6.Conclusion -- Acknowledgement --

References -- 5.Matching Requirements for Ambient Assisted Living and Enhanced Living Environments with Networking Technologies / Nuno M. Garcia -- 5.1.Introduction -- 5.2.Classification of AAL/ELE Domains and Applications -- 5.3.Communication Services to Support AAL/ELE Infrastructure -- 5.4.Requirements of AAL/ELE Applications -- 5.5.Networking Technologies and Their Impact on the AAL/ELE Requirements -- 5.6.Key Derivations -- 5.7.Conclusion -- Acknowledgements -- References

Sommario/riassunto	Ambient Assisted Living and Enhanced Living Environments: Principles, Technologies and Control separates the theoretical concepts concerning the design of such systems from their real-world implementations. For each important topic, the book bridges theory and practice, introducing the instruments needed by professionals in their activities. To this aim, topics are presented in a logical sequence, with the introduction of each topic motivated by the need to respond to claims and requirements from a wide range of AAL/ELE applications. The advantages and limitations of each model or technology are presented through concrete case studies for AAL/ELE systems. The book also presents up-to-date technological solutions to the main aspects regarding AAL/ELE systems and applications, a highly dynamic scientific domain that has gained much interest in the world of IT in the last decade. In addition, readers will find discussions on recent AAL/ELE technologies that were designed to solve some of the thorniest business problems that affect applications in areas such as health and medical supply, smart city and smart housing, Big Data and Internet of Things, and many more. Introduces readers to technologies supporting the development of Ambient Assisted Living applications Explains state-of-the-art technological solutions for the main issues regarding AAL and Enhanced Living Environments Reports the development process of scientific and commercial applications and platforms that support AAL and ELE Identifies the advanced solutions in the context of Enhanced Living Environments