The increasing aging of population and the growing number of chronically ill people require that national healthcare systems be prepared, in the next future, and equipped to face such issues and avoid collapses.

The shift to a more consumer driven healthcare market is impacting consumer expectations regarding the quality and consistency of the care they seek. Moreover, patients facing a potentially life threatening disease are seeking the rapid responses from healthcare systems and operators and, possibly, better plans for treatments. On the other hand, the wide diffusion of wireless technologies along with the emerging of new devices and sensors are opening a new market of better and cheaper healthcare applications.

Pervasive healthcare is the emerging discipline about the application of wireless, mobile and intelligent technologies to healthcare. It is related to the development and application of pervasive computing technologies -ubiquitous computing, context-aware computing, ambient intelligence, etc- for healthcare, health and wellness management.

It definitively aims at making healthcare available to anyone, anytime, and anywhere according to the original vision of the pervasive computing paradigm.

Pervasive healthcare seeks to respond to a variety of pressures on healthcare systems, including the increased incidence of life-style related and chronic diseases, emerging consumerism in healthcare, need for empowering patients and relatives for self-care and management of their own health, and need to provide seamless access to health care services, independent of time and place.

Pervasive healthcare is opening a wide range of innovative applications, from remote monitoring of elder people or ill patients, to new environments like advanced surgery rooms, smart spaces for doctor consulting, assisted living homes, smart hospitals, etc.

Research Community has been producing a remarkable effort with the aim of developing methodologies, techniques, technologies, tools, and applications of pervasive healthcare. Such an effort has been principally pushed by national governs and international organizations (e.g. European Commission) that have studied the benefits of adopting such technologies in healthcare and then funded myriad of projects.

This book reports several experiences concerning the application of pervasive computing technologies, methodologies and tools in healthcare.

It has received the contribution of members of prestigious universities, research institutes and industries, all working, day by day, for identifying solutions to decentralize patient care from hospital to home, to improve disease prevention and self-care, to provide seamless and pervasive access to health care services, etc.

This book is oriented both at ICT community members, who are willing to design and develop advanced pervasive healthcare application, and at healthcare managers and operators, who want to reorganize business processes into hospitals and in the healthcare system in general, as well as procedures for treating ill and/or old people.
The reader can easily figure out the potentialities of pervasive computing in healthcare. In particular, by means of the set of new applications described, as well as the methodologies, technologies and tools presented, the reader can catch the state of the art and future trends.


*Technologies and Applications* consists of seven chapters, which present different technologies, like body sensor networks, and relevant applications. *Security, Dependability, and Performability* is focused on critical issues like the reliability of pervasive healthcare solutions, the privacy of clinic information, the ability of remote monitoring services to perform correctly in real environments, etc. *Methodologies and Frameworks* presents methodological approaches to the design, implementation and business management of pervasive healthcare systems along with some enabling frameworks.

To conclude, we sincerely hope that you enjoy the experience of this state of the art book, and get excited by potentialities of new technologies in a crucial field of application like healthcare.